PROGRAM BOOK

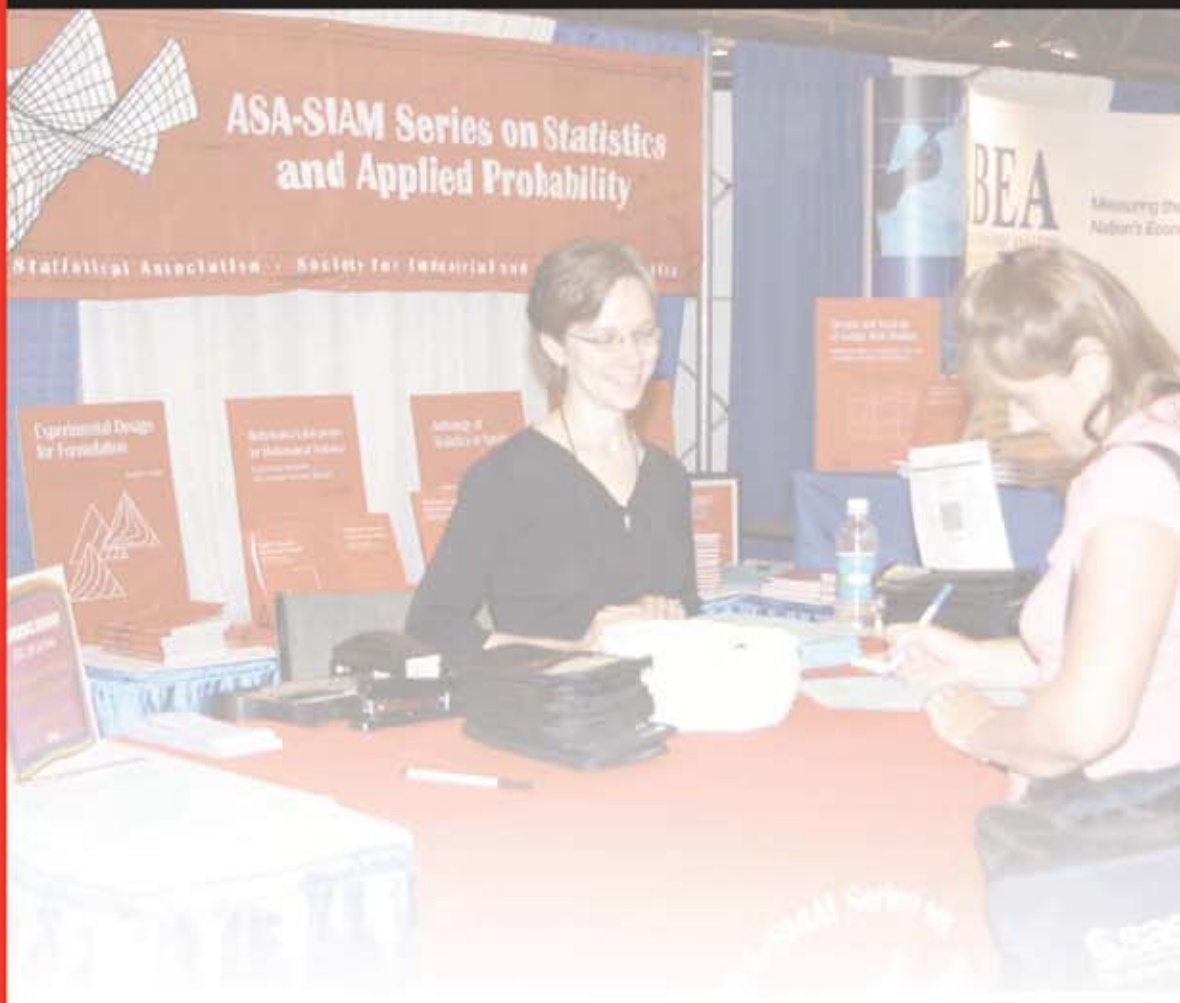
JSM 2008

Denver, Colorado
August 3–7, 2008

Multitasking has never been easier!

Check off everything on your "to do" list when you visit us at booth #104, home of the ASA-SIAM Series on Statistics and Applied Probability.

- ☑ Speak with the Series Acquisitions Editor about a book you're writing or suggest ideas for new books you'd like to see in the series.
- ☑ Browse series titles for books of interest to you — get 20–30% off and free shipping on all purchases.
- ☑ Influence the future of the series and get a free notepad when you complete a brief survey.



Lisa LaVange, Series Editor-in-Chief
Sara J. Murphy, Series Acquisitions Editor

ASA-SIAM Series on Statistics and Applied Probability

http://www.siam.org/books/series/sa.php

General Conference Information

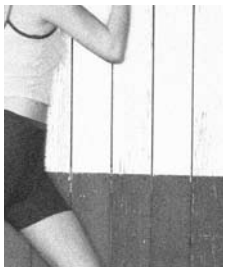
The 19th Annual

GERTRUDE COX SCHOLARSHIP RACE

5k Race and 2.5k Fun Run/Walk at JSM in Denver

Tuesday, August 5, 2008

JSM 08 DENVER



The Caucus for Women in Statistics, in conjunction with the ASA, presents the 19th annual Gertrude Cox Scholarship Race at the Joint Statistical Meetings in Denver, Colorado. All proceeds will benefit the Gertrude M. Cox Scholarship in Statistics.

The Race: Two races running concurrently: a competitive 5k race and a 2.5k fun run/ walk

When: Tuesday, **August 5, early morning (time to be announced)**

Where: Location and logistical information will be posted at the Caucus for Women in Statistics table in the Colorado Convention Center

How Much: The entry fee is $20

Registration: Those interested in participating are encouraged to register early. You may register online at ***www.statwomen.org*** by going to ***activities>make a donation*** and entering $20. You also may register during JSM at the hospitality table for the Caucus for Women in Statistics, near the registration area in the Colorado Convention Center. All participants must sign a registration form and waiver. T-shirts for all preregistered runners will be distributed at the race. If you have questions, contact Marcia A. Ciol at *marciac@u.washington.edu.*

REGISTRATION FORM *(each participant must complete and sign form)*

_____

Name

_____

Address

_____

City State/Province ZIP/Postal Code Phone

SEX: ❑ M ❑ F **Age** _____ **EVENT:** ❑ 5k Race ❑ 2.5k Fun Run/Walk **T-SHIRT SIZE:** ❑ S ❑ M ❑ L ❑ XL

THE FINE PRINT. I understand that running a road race is a potentially hazardous activity. I will not enter and run unless I am medically able and properly trained. I agree to abide by any decision of a race official relative to my ability to complete the run safely. I assume all risks associated with running in this event, including, but not limited to, falls; contact with other participants; and effects of weather, traffic, and course conditions. All such risks are known and appreciated by me. Having read this waiver, knowing these facts, and in consideration of your accepting my entry, I, for myself and anyone entitled to act on my behalf, waive and release the race directors, the race committee, and all sponsors from all claims of liabilities of any kind arising out of my participation in this event, even though such liability may arise as a result of negligence or carelessness on the part of the persons named in this waiver.

_____

Signature Date

_____

Parent or guardian (if under 18)

Make check payable to ***The Gertrude Cox Scholarship Fund***
or register online at ***www.statwomen.org*** > ***activities*** > ***make a donation***; enter $20.

2008 JSM Program Committee

JSM Program Chair
Russell V. Lenth
Department of Statistics & Actuarial Sciences

International Biometric Society (ENAR)
Robert Johnson
Virginia Commonwealth University

International Biometric Society (WNAR)
Gang Li
UCLA School of Public Health

Institute of Mathematical Statistics (Invited)
Josée Dupuis
Boston University

Institute of Mathematical Statistics (Contributed)
Eric D. Kolaczyk
Boston University

Statistical Society of Canada (SSC)
Denis Larocque
HEC Montréal

Council of Chapters, ASA
Yisheng Li
The University of Texas

Committee on Committees, ASA
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U.S. Census Bureau

General Methodology ASA
Mary K. Batcher
Ernst & Young

General Methodology ASA
Dale Zimmerman
University of Iowa

Invited and Contributed Posters
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SAS Institute Inc.

Section on Bayesian Statistics, ASA
David A. van Dyk
University of California, Irvine

Biometrics Section, ASA
Debashis Ghosh
Pennsylvania State University

Biopharmaceutical Section, ASA
Kalyan Ghosh
Vislation

Business & Economic Statistics Section, ASA
Clifford M. Hurvich
New York University

Statistical Computing Section, ASA
Wolfgang Jank
University of Maryland

Section on Statistical Consulting, ASA
James Grady
The University of Texas

Section on Statistics in Defense and National Security, ASA
David J. Marchette
Naval Surface Warfare Center

Section on Statistical Education, ASA
Jackie Miller
The Ohio State University

Section on Statistics and the Environment, ASA
Andrew B. Lawson
University of South Carolina Arnold School of Public Health

Section on Epidemiology, ASA
William E. Barlow
Cancer Research and Biostatistics

Section on Government Statistics, ASA
Michael E. Davern
State Health Access Data Assistance Center

Section on Statistical Graphics, ASA
David R. Hunter
The Pennsylvania State University

Section on Health Policy Statistics, ASA
Anirban Basu
University of Chicago

Section on Statistics in Marketing, ASA
Stan Lipovetsky
GfK Custom Research

Section on Nonparametric Statistics, ASA
Robert J. Serfling
The University of Texas at Dallas

Section on Physical & Engineering Sciences, ASA
Randall D. Tobias
SAS Institute Inc.

Section on Quality & Productivity, ASA
James D. Williams
GE Global Research

Section on Risk Analysis, ASA
Susan Simmons
The University of North Carolina at Wilmington

Social Statistics Section, ASA
Jana L. Asher

Section on Statistics in Sports, ASA
Michael J. Schell
University of South Florida Moffitt Cancer Center & Research Institute

Section on Survey Research Methods, ASA
David A. Marker
Westat

Section on Teaching Statistics in the Health Sciences, ASA
Jodi Lapidus
Oregon Health & Science University

Local Area Committee

Matt J. Pocernich, Chair
National Center for Atmospheric Research

Gary M. Andrew

Tressa Fowler
National Center for Atmospheric Research

Miranda E. Grote
University of Colorado Health Sciences Center

Douglas P. Mader
SigmaPro Inc.

Brian Wiens
Gilead

Craig B. Williamson
Energy Insights

Gary O. Zerbe
University of Colorado Health Sciences Center

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Procter & Gamble

Katherine T. Halvorsen
Smith College

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SAS Institute Inc.

Nandini Kannan
The University of Texas at San Antonio

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DP Clinical

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Scott D. Patterson
Wyeth

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University of Utah

Charles Yun Tan
Merck & Co. Inc.

ASA Continuing Education

Rick Peterson
Education Programs Associate

ASA Meetings

Elaine L. Powell, CMP
Assistant Director of Meetings

Kathleen Wert
Meetings Planner

Donna-Renee Arrington
Meetings Planner

Kristen Campbell
Meetings Coordinator

American Statistical Association
732 North Washington Street
Alexandria, VA 22314-1943
jsm@amstat.org
www.amstat.org

JSM 2008

SPEAK OUT

Join the ASA's FIRST EVER "virtual" Open Meeting

Take part in an **online discussion** forum with any or all of these ASA leaders:

Tony Lachenbruch, President

Sally Morton, President-elect

Sastry Pantula, Treasurer

Ron Wasserstein, Executive Director

The ASA's online **open meeting** is available to everyone from August 2–8, 2008, at ***www.amstat.org/meetings/jsm/2008/openmeeting.***

Learn about the ASA.

Ask questions.

Offer suggestions.

It is YOUR association!

Keynote Speakers

President's Invited Address

"Health Care Considerations for the Millennium"

Monday, August 4, 4:00 p.m.

Mark B. McClellan is senior fellow and director of the Engelberg Center for Healthcare Reform and the Leonard D. Schaeffer Director's Chair in Health Policy Studies at the Brookings Institution. Completing his residency in internal medicine at Brigham and Women's Hospital, he earned his MD from the Harvard-MIT Division of Health Sciences and Technology in 1992 and his PhD in economics from MIT in 1993. McClellan has also served two presidential administrations in roles such as administrator for the Centers for Medicare and Medicaid Services, commissioner of the FDA, member of the President's Council of Economic Advisors, senior director for health care policy at the White House, and deputy secretary of the Office of Economic Policy at the U.S. Treasury.

Deming Lecture

"Inference and Improvement in Health Care"

Tuesday, August 5, 4:00 p.m.

Donald M. Berwick is president and CEO of the Institute for Healthcare Improvement. He is also a clinical professor of pediatrics and health care policy in the Department of Pediatrics at Harvard Medical School and professor of health policy and management in the Harvard School of Public Health. He is a pediatrician, adjunct staff member in the Department of Medicine at Boston's Children's Hospital, and a consultant in pediatrics at Massachusetts General Hospital. A *summa cum laude* graduate of Harvard College, Berwick holds a master's degree in public policy from the John F. Kennedy School of Government and an MD *cum laude* from Harvard Medical School.

ASA Presidential Address

"Communicating Statistics and Developing Professionals"

Tuesday, August 5, 8:00 p.m.

Peter A. Lachenbruch is professor of public health at Oregon State University. He has held positions on the faculties of The University of North Carolina, University of Iowa, and UCLA. He also was employed by the FDA/CBER before retiring as the director of the Division of Biostatistics. Lachenbruch is a Fellow of the American Statistical Association as well as its president. He earned his PhD from UCLA in biostatistics.

COPSS Fisher Lecture

"The Population Science Research Agenda and the Women's Health Initiative"

Wednesday, August 6, 4:00 p.m.

Ross L. Prentice is interim director of the Public Health Sciences Division of the Fred Hutchinson Cancer Research Center, where he was director from 1983–2002, and professor of biostatistics at the University of Washington. He is also principal investigator of the NIH-sponsored Clinical Coordinating Center for the Women's Health Initiative and principal investigator for a longstanding NIH program grant that focuses on statistical methods for biomedical research. Prentice earned his BSc from the University of Waterloo and his PhD from the University of Toronto.

Hotel Listing and University Housing

Headquarter Hotel

Ⓐ Hyatt Regency Denver
650 15th Street

Other Conference Hotels

Ⓑ Hilton Garden Inn
1400 Welton Street

Ⓒ Crowne Plaza
1450 Glenarm Place

Ⓓ Marriott City Center
1701 California Street

Ⓔ Grand Hyatt
1750 Welton Street

Ⓕ Comfort Inn
401 17th Street

Ⓖ Westin Tabor Center
1672 Lawrence Street

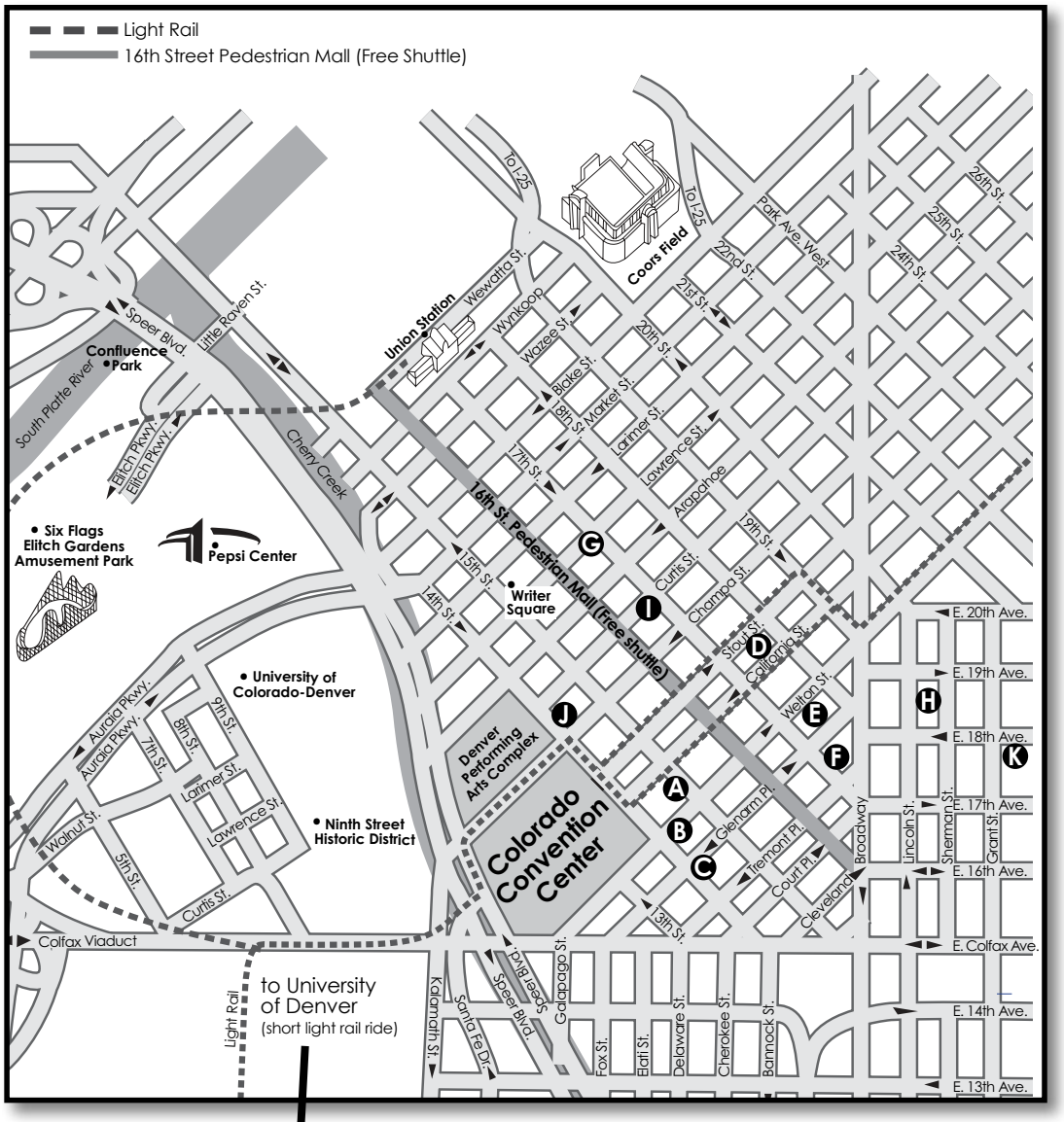
Ⓗ Hampton Inn & Suites
1845 Sherman Street

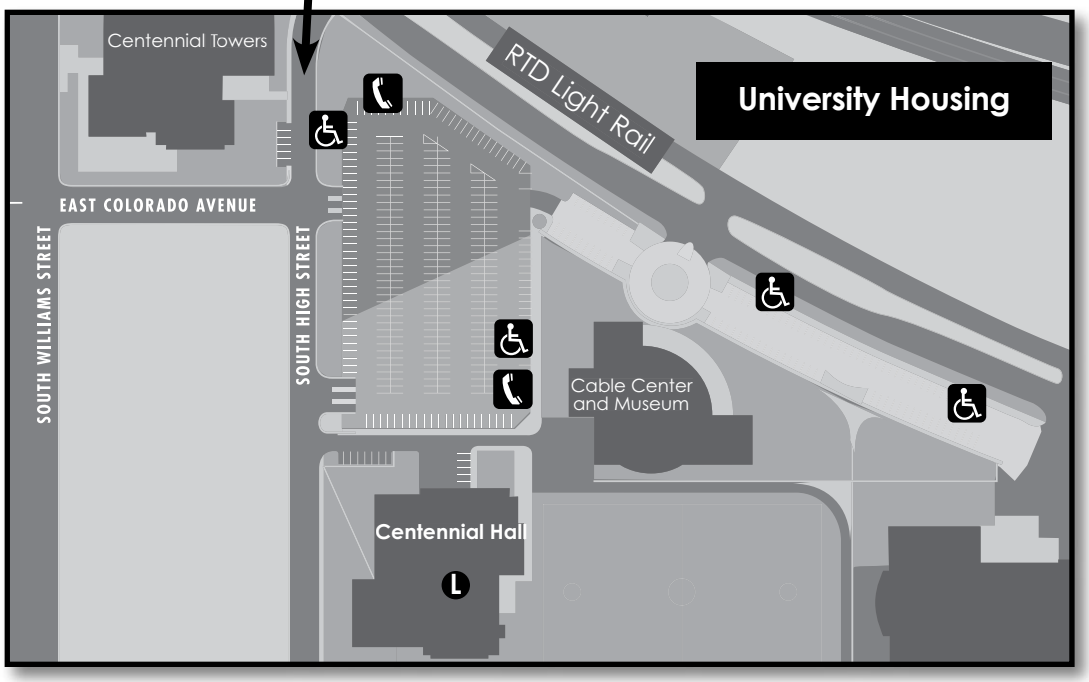
Ⓘ Courtyard Denver Downtown
934 16th Street

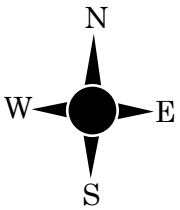
Ⓙ The Curtis
1405 Curtis Street

Ⓚ Warwick Denver Hotel
1776 Grant Street

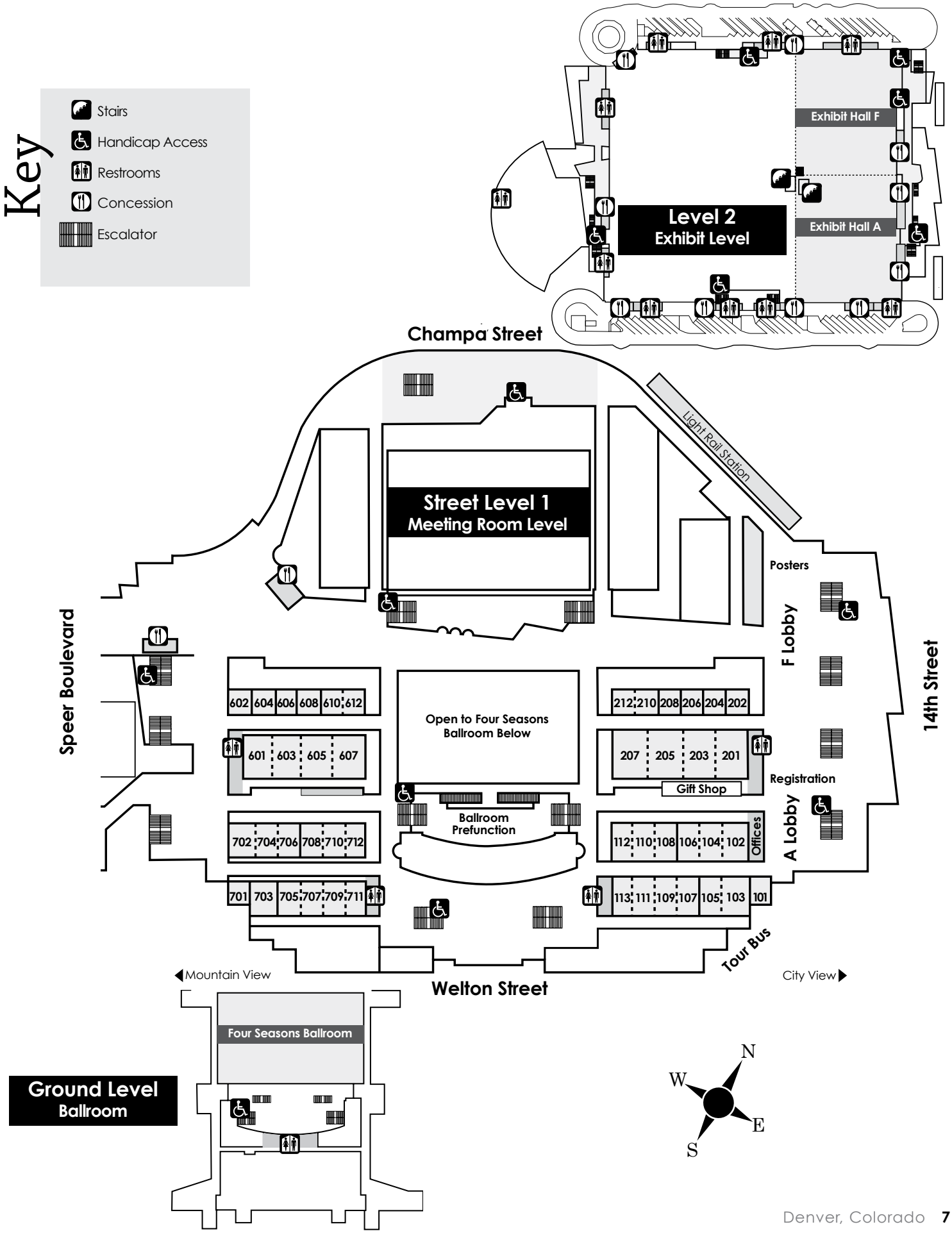
Ⓛ University of Denver, Centennial Hall
1870 S. High Street







Convention Center (CC)–Levels 1 and 2



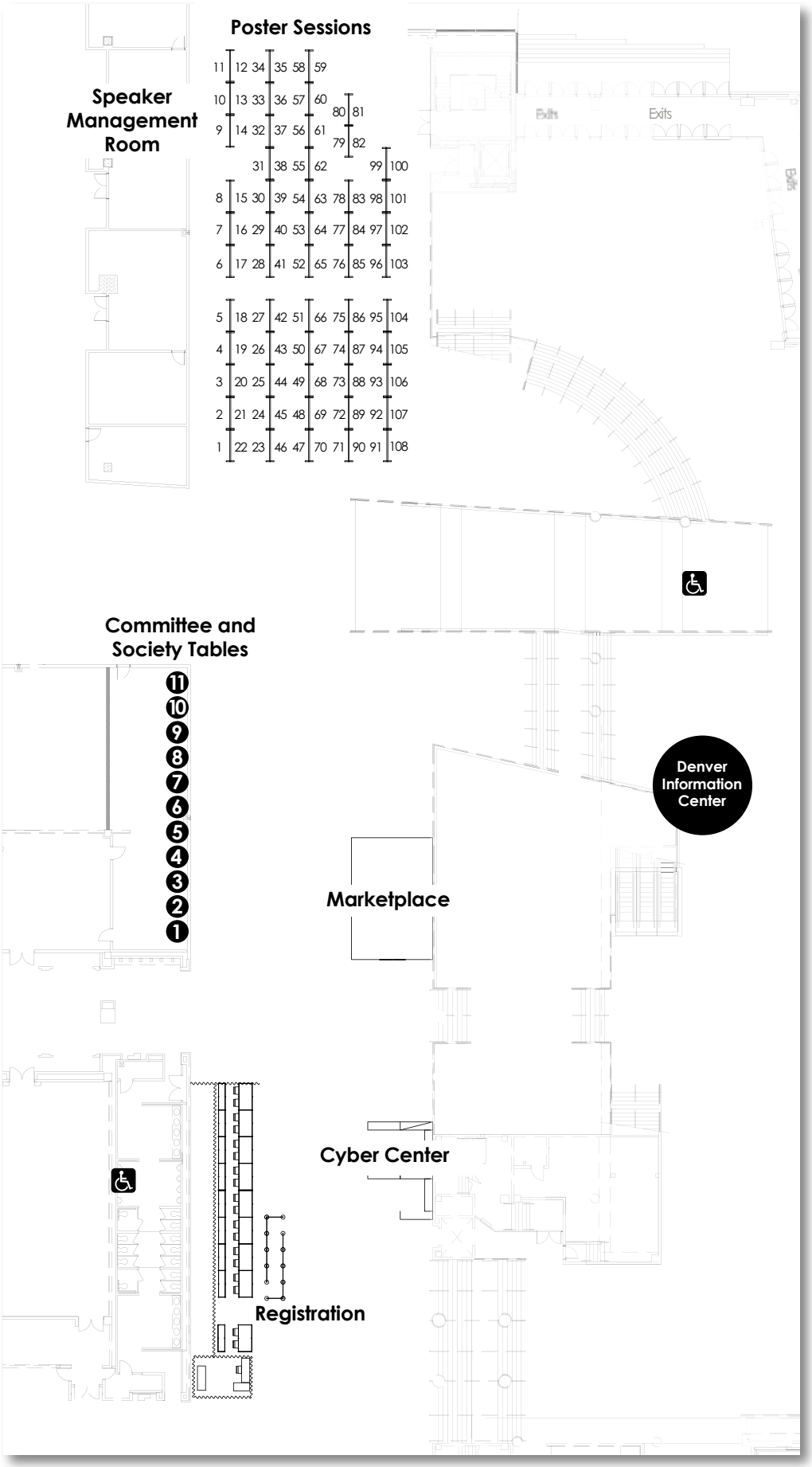
Convention Center

Key

- Stairs
- Handicap Access
- Restrooms
- Concession
- Escalator

Committee and Society Tables

1. ASA Council of Sections
2. ASA Council of Chapters
3. Current Index to Statistics (CIS)
4. Caucus for Women in Statistics
5. Gay and Lesbian Concerns in Statistics
6. Federal Committee on Statistical Methodology (FCSM)
7. Christian Statisticians
8. International Indian Statistical Association (IISA)
9. International Chinese Statistical Association (ICSA)
10. International Statistical Institute (ISI)
11. Statistical Education

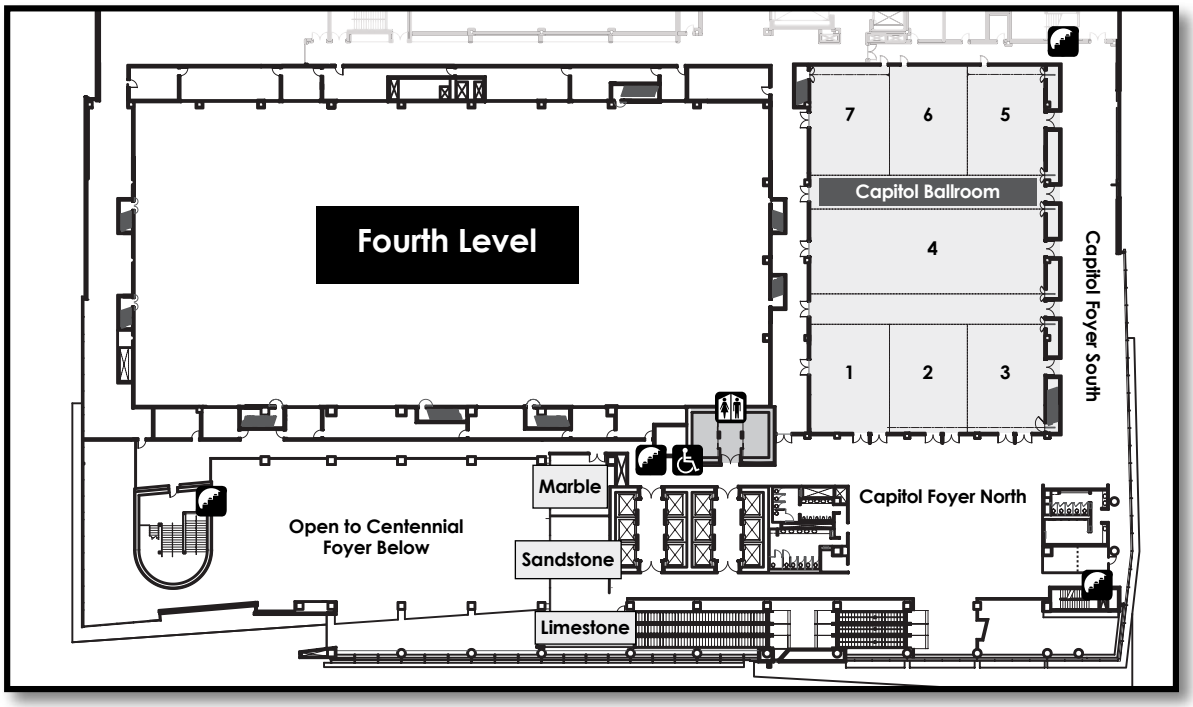


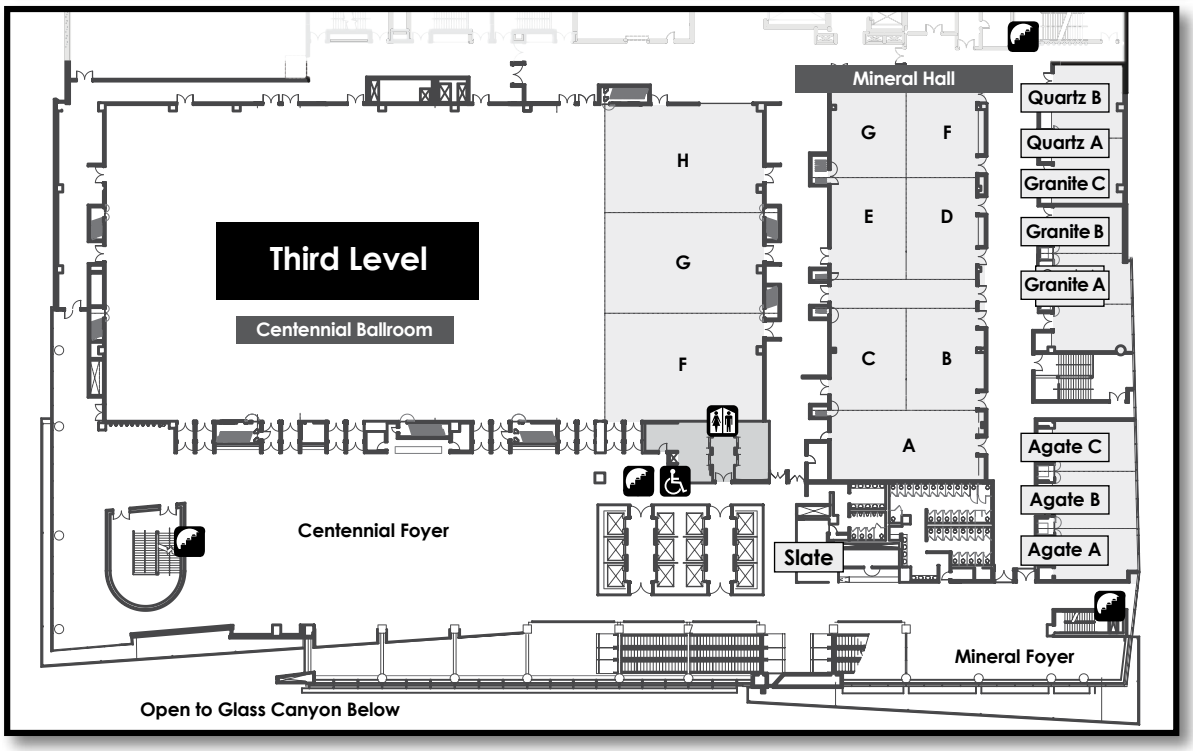
Hotel Floor Plans

Hyatt Regency Denver (HY)

Key

- Stairs
- Handicap Access
- Restrooms
- Concession
- Escalator





What You Need to Know

CC-Colorado Convention Center HY-Hyatt Regency Denver

Emergency Telephone Messages

In case of emergency, messages may be left during registration hours by calling (303) 228-8214. These will be posted at the Cyber Center, located in the registration area.

Convention Housing

Hyatt Regency Denver	(303) 436-1234
Hilton Garden Inn	(303) 603-8000
Crowne Plaza	(303) 573-1450
Marriott City Center	(303) 297-1300
Grand Hyatt Denver	(303) 295-1234
Comfort Inn	(303) 296-0400
Westin Tabor Center	(303) 572-9100
Hampton Inn & Suites	(303) 864-8000
Courtyard Denver Downtown	(303) 571-1114
The Curtis	(303) 571-0300
Warwick Denver	(303) 861-2000
University of Denver	(303) 371-2565

Assistance for Those with Disabilities

Please contact a staff member at the Special Assistance Desk in the registration area of the Colorado Convention Center if you have a disability that may impede your participation.

Child Care

Services may be organized through Jennie Foster Downtown Day Care. Jennie Foster is professionally bonded and trained in first aid and CPR. For more information, visit *www.adowntowndenvernanny.com* or call (303) 297-8282.

The Caucus for Women in Statistics will provide a subsidy toward four hours of babysitting per family for up to 10 families. For details, contact Marcia Ciol at *marciac@u.washington.edu.*

Policies

Electronic Devices

All cell phones, pagers, and other electronic devices should be turned off before attending any session.

Smoking

Smoking is not permitted at any JSM function, unless the event is held outside.

Photographs and Videotaping

Taking photographs or using video equipment during any JSM session or event is prohibited.

Recycling

Please use the paper, plastic, and aluminum containers located throughout the Colorado Convention Center. Also, participating in the towel and linen programs at area hotels makes a significant difference in the amount of energy and water used. You also can change the option from print to not print or use the paper recycling containers available at the Cyber Center. Finally, place the JSM badges and badge holders in one of the designated bins for recycling in the registration area.

JSM Proceedings

Eligibility guidelines and author instructions for JSM 2008 presenters are available at *www.amstat.org/meetings/jsm/2008/index.cfm?fuseaction=proceedings.* The submission site will open on August 15, 2008, and close on October 27, 2008.

JSM 2009

The 2009 Joint Statistical Meetings will be held in Washington, DC, from August 2–6 at the Walter E. Washington Convention Center. Check out the details at Booth #105 in the exhibit hall.

Membership

Information about the ASA, ENAR, WNAR, IMS, and SSC is available at the society booths in the registration area and exhibit hall. Each society provides a variety of publications and activities to anyone interested in applied and or theoretical statistics, and student membership is offered at substantially reduced rates.

Hours of Operation

Registration and ASA Membership/ Special Assistance/Press Desk

CC – A Lobby Foyer

JSM registration includes the Program Book and Abstract Book or CD; access to the exhibit hall; and admission to the Opening Mixer, Student Mixer (students only), and Informal Dance Party.

Saturday	7:00 a.m. – 6:00 p.m.
Sunday	7:00 a.m. – 8:30 p.m.
Monday	7:30 a.m. – 6:00 p.m.
Tuesday – Wednesday	7:30 a.m. – 4:30 p.m.
Thursday	7:30 a.m. – 10:30 a.m.

Speaker Management Room

CC-F2 Lobby Office

Speakers are required to check in 24 hours prior to their presentations to upload their materials or confirm their materials were uploaded correctly. Session chairs also should check in to confirm all speakers have uploaded their materials to the speaker management system.

Saturday	10:00 a.m. – 6:00 p.m.
Sunday	9:00 a.m. – 7:00 p.m.
Monday – Wednesday	7:00 a.m. – 6:00 p.m.

Career Placement Service

CC – Exhibit Hall A

Saturday	9:00 a.m. – 5:00 p.m. (job posting and résumé submission only)
Sunday	1:00 p.m. – 6:00 p.m.
Monday – Tuesday	8:00 a.m. – 6:00 p.m.
Wednesday	8:00 a.m. – 4:30 p.m. (onsite registration closes at noon)

EXPO 2008

CC – Exhibit Hall F

Visit publishers, software companies, and recruiters. See state-of-the-art products designed for the statistical community.

Sunday	1:00 p.m. – 6:00 p.m.
Monday – Tuesday	9:00 a.m. – 6:00 p.m.
Wednesday	9:00 a.m. – 2:00 p.m.

Introductory Overview Lectures

Sunday, August 3, 4:00 p.m. – 5:50 p.m.
CC-607
Session 35 - Interdisciplinary Communications: Functional Data Analysis and Differential Equation Models

Monday, August 4, 8:30 a.m. – 10:20 a.m
CC-605
Session 77 - Missing and Coarse Data

Tuesday, August 5, 8:30 a.m. – 10:20 a.m.
CC-704
Session 207 - Harnessing Bibliographic Data

Wednesday, August 6, 8:30 a.m. – 10:20 a.m.
CC-205
Session 334 - Sample Size and Related Issues

Cyber Center

CC-A Lobby Foyer

There are 20 terminals with internet access available for your emailing needs, as well as three printers. Also, the Colorado Convention Center has wireless internet access throughout the building for $15.95 per day. There will be no internal message center this year, so make sure to take advantage of these internet options.

Saturday	7:00 a.m. – 7:00 p.m.
Sunday	7:00 a.m. – 10:30 p.m.
Monday – Tuesday	7:00 a.m. – 10:00 p.m.
Wednesday	7:00 a.m. – 8:00 p.m.
Thursday	7:00 a.m. – 10:30 a.m.

ASA Marketplace

CC – A Lobby Foyer

The ASA Marketplace is your store for the official JSM 2008 T-shirt and other JSM and ASA souvenirs.

Saturday	12:00 p.m. – 5:00 p.m.
Sunday – Wednesday	9:00 a.m. – 5:00 p.m.
Thursday	7:30 a.m. – 10:00 a.m.

Denver Visitors Information Center

CC – Main Lobby

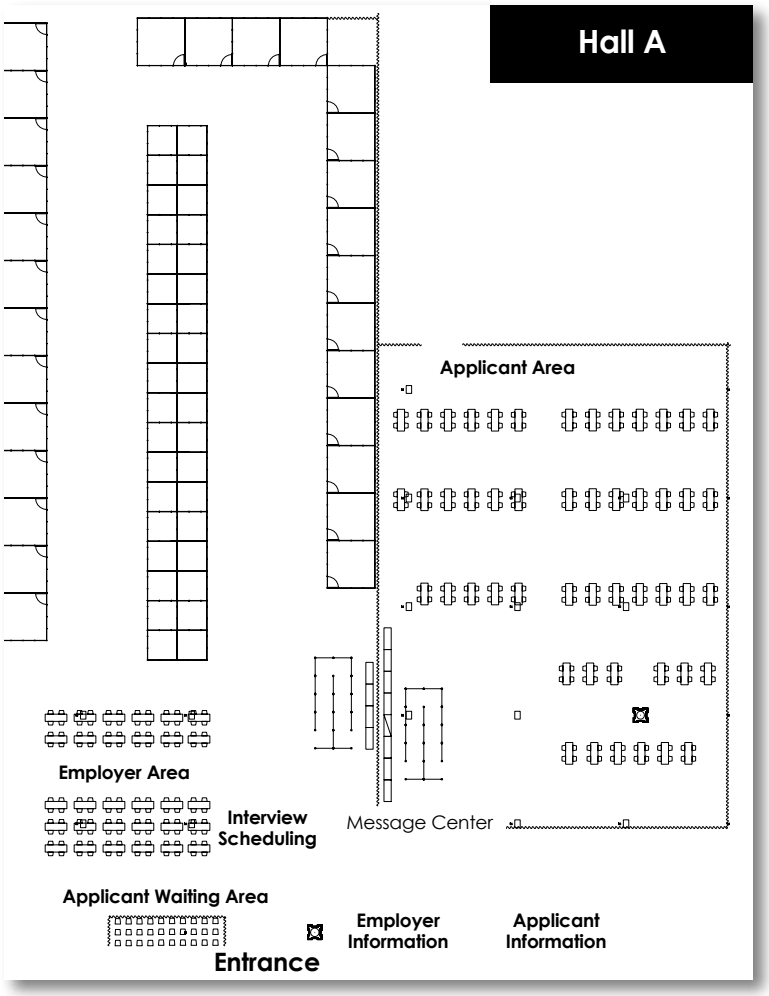
Operated by the Colorado Convention Bureau, this center provides extensive information and referrals for restaurants, tours, and sightseeing. You also can pick up current maps and travel information.

Sunday	9:00 a.m. – 5:00 p.m.
Monday – Thursday	8:00 a.m. – 6:00 p.m.

Career Placement Service

Executive Suite Employers

Abbott
American College of Radiology
Amgen
Bank of America
Capital One
Clinical Trials & Surveys Corp. (C-TASC)
Eli Lilly and Company
Fannie Mae
Food and Drug Administration / Center for Devices and Radiological Health
Food and Drug Administration / Center for Drug Evaluation & Research
Food and Drug Administration / Quantitative Safety and Pharmacoepidemiology Group
Fred Hutchinson Cancer Research Center
Genentech
John Deere Credit
National Security Agency
NORC at the University of Chicago
Novartis
Novartis Oncology
Pacific Northwest National Laboratory
PPD, Inc.
sanofi-aventis
SAS
Takeda Pharmaceuticals



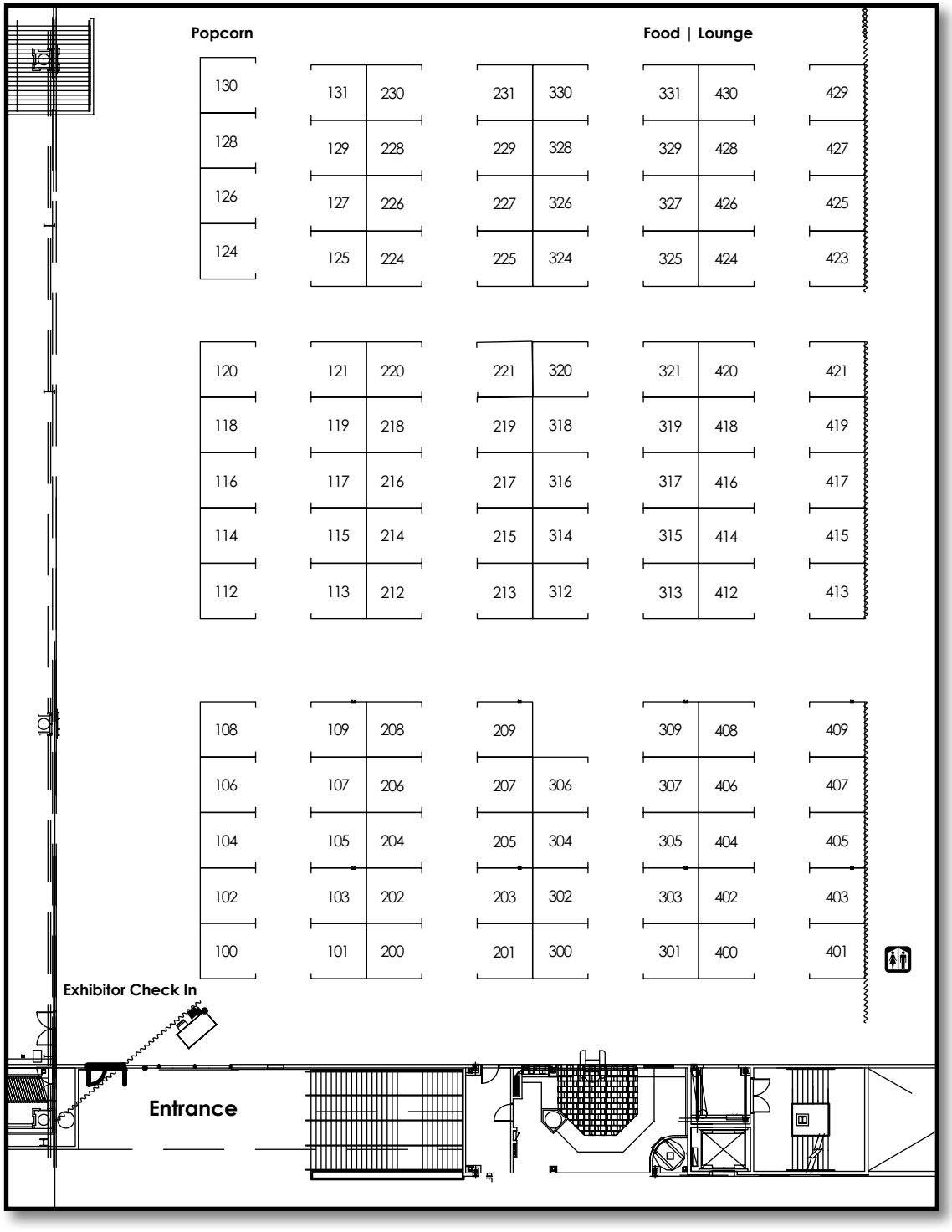
Registered Employers

Alaska Dept. of Fish and Game-Sport Fish
American University
Astellas Pharma US, Inc.
Barclays
Barrow Neurological Institute
Baruch College, City University of New York
Biogen Idec
Boehringer-Ingelheim Pharmaceuticals Inc.
California State University at Fullerton
The Cambridge Group Ltd
Center for Health Equity Research & Promotion
The CNA Corporation
Colby College
Dept. of Labor, Bureau of Labor Statistics
DuPont
The EMMES Corporation
Exponent
GE Global Research
GlaxoSmithKline
Google
Group Health Center for Health Studies
IBM T. J. Watson Research Center
Instituto Tecnológico Autónomo de México (ITAM)
IRS, Statistics of Income Division
Lawrence Livermore National Laboratory
Lubrizol Corporation
Mayo Clinic
Medical College of Wisconsin, Biostatistics
Monsanto Company
Pfizer Global Research & Development
Precision Bioassay
Procter & Gamble
Rush University Medical Center
SciMetrika, LLC
Smith Hanley Associates, LLC
Social Security Administration
STATKING Consulting, Inc.
StatPoint Technologies, Inc.
UCLA, Dept. of Biostatistics
University of Maryland, Baltimore
University of Ottawa
University of Wisconsin-La Crosse
U.S. Census Bureau
USDA Center for Veterinary Biologics
Vanderbilt University Medical Center, Department of Biostatistics
Walt Disney World
West Point, Department of Mathematical Sciences
Westat
Wyeth Pharmaceutical

Expo 2008

Key

- Stairs
- Handicap Access
- Restrooms
- Concession
- Escalator



Who's Who at EXPO 2008

Booth	Exhibitor
(100)	Institute of Mathematical Statistics
(101, 103)	American Statistical Association
(102)	Statistical Society of Canada
(104)	ASA-SIAM
(105)	JSM 2009 Washington, DC
(106)	SIAM
(107, 109)	National Security Agency
(108)	USDA/NASS
(112, 114)	Minitab Inc.
(113)	Kforce Clinical Research
(115, 117)	Oxford University Press
(116)	Salford Systems
(119)	SAGE Publications
(120)	StatPoint Technologies
(121)	Hawkes Learning Systems
(124)	CDC/ATSDR
(125, 224)	RTI International
(126)	Space-Time Research
(128)	Colorado School of Public Health
(130)	National Center for Health Statistics
(131)	National Death Index – NCHS
(200, 202)	JMP, a business unit of SAS
(201, 203, 205)	SAS, SAMS
(204, 206, 208)	SAS Publishing
(207, 209)	SAS Education
(212)	Capital One
(213)	NCSS
(214)	U.S. Census Bureau
(215)	Bureau of Labor Statistics
(216, 218)	Cambridge University Press
(217)	McGraw-Hill/Irwin
(219)	Fannie Mae
(220)	Smith Hanley Associates
(221)	Wolfram Research
(225)	Cambridge Group LTD

Booth	Exhibitor
(227)	The Berkeley Electronic Press
(228, 230)	Elsevier
(231)	MedFocus LLC
(300, 302, 304, 306)	John Wiley & Sons
(301, 400)	SPSS Inc.
(303)	Eli Lilly and Company
(305, 307)	Insightful Corporation
(309)	W.H. Freeman & Company
(312, 314)	Cytel Inc.
(313, 315, 317, 412, 414, 416)	CRC Press-Taylor & Francis Group LLC
(316)	U.S. Dept. of Ed/Institute of Education Sciences
(318, 320)	Pearson
(319)	Aptech Systems Inc.
(321)	Statistical Solutions
(324)	Placemart Personnel Service
(325)	Biostat Inc.
(326, 327, 328, 329, 330, 331)	Springer
(401, 403)	StatSoft
(402, 404)	Brooks/Cole Cengage Learning
(405)	SYSTAT Software Inc.
(406)	Aplia
(408)	MacKichan Software
(409)	IRS/Statistics of Income
(413)	Palisade Corporation
(415, 417)	REvolution Computing
(419)	John Deere Credit
(420)	Johnson & Johnson Family of Companies
(421)	Google
(423)	Allergan Inc.
(424)	AAAS Science & Technology Policy Fellowships
(425, 427, 429)	StataCorp
(426)	PSFSolutions

Who's Who at EXPO 2008

AAAS Science & Technology Policy Fellowships (424)
Washington, DC

Spend a year working in Washington, DC. Since 1973, nearly 2,000 scientists and engineers have contributed their analytical and technical skills to federal policymaking. Fellowships are available in various congressional offices and federal agencies for professionals in all career stages. Applicants must hold a PhD or equivalent. Visit *http://fellowships.aaas.org*.

ASA-SIAM (104)
Alexandria, VA

The ASA-SIAM Series on Statistics and Applied Probability is published jointly by the American Statistical Association and the Society for Industrial and Applied Mathematics. The series consists of a broad spectrum of books on topics in statistics and applied probability. It provides inexpensive, quality publications of interest to the intersecting membership of the two societies.

Allergan Inc. (423)
Irvine, CA

Allergan is a global, technology-driven, multispecialty health care company pursuing therapeutic advances to help patients live life to its fullest. We work to develop an unparalleled level of insight into patients' wants and needs—and into the priorities and concerns of the medical specialists who treat them.

American Statistical Association (101, 103)
Alexandria, VA

Since 1839, the ASA has been the world's leading professional association for statisticians. The ASA serves as a forum for sharing ideas, experiences, innovations, and accomplishments. Members are involved in such areas of statistics as medicine, computer applications, quality management, analytical research, setting standards for statistics, and promoting statistical education.

Aplia (406)
Belmont, CA

Aplia is a web-based, interactive homework system designed to increase student effort and engagement in statistics. Founded by a professor to enhance his own courses, Aplia provides automatically graded homework, detailed feedback, and innovative teaching materials. Aplia prepares students for their courses, engages and motivates them, and ensures regular practice.

Aptech Systems Inc. (319)
Black Diamond, WA

The GAUSS Mathematical and Statistical System is a fast matrix programming language widely used for solving mathematical and statistical problems. GAUSS 9.0 supports multithreaded, computationally intensive tasks and suits the researcher who lacks time to develop programs in C or FORTRAN, but finds statistical or mathematical packages inflexible and limited.

The Berkeley Electronic Press (227)
Berkeley, CA

Founded by professors, The Berkeley Electronic Press represents the new standard in academic journals: fast and high-quality peer review, a liberal guest access policy, and prices your library can easily afford. We publish 40 online-only journals, including seven in statistics, biostatistics, sports statistics, and econometrics. For more information, see *www.bepress.com/journals*.

Biostat Inc. (325)
Englewood, NJ

Biostat offers a computer program for meta-analysis. Stop by Booth 325 for a free trial CD, papers on meta-analysis, and information on our Wednesday morning workshop.

Brooks/Cole Cengage Learning (402, 404)
Belmont, CA

Cengage Learning delivers highly customized learning solutions for colleges, universities, professors, students, reference centers, government agencies, corporations, and professionals around the world. These solutions provide measurable results to customers and are delivered through specialized content, applications, and services that foster academic excellence and professional development.

Bureau of Labor Statistics (215)
Washington, DC

The Bureau of Labor Statistics (BLS) is the principal fact-finding agency for the federal government in the broad field of labor economics and statistics. BLS data are available online at *www.bls.gov* and in various publications.

CDC/ATSDR (124)
Atlanta, GA

The Centers for Disease Control and Prevention is one of 11 operating divisions of the Department of Health and Human Services, which is the principal agency in the United States government for protecting the health and safety of all Americans and providing essential human services.

CRC Press-Taylor & Francis Group LLC (313, 315, 317, 412, 414, 416)
Boca Raton, FL

Taylor & Francis is a premier publisher of statistics books (Chapman & Hall/CRC imprint), journals, and electronic databases. This year, we are offering a 50% discount on select items and up to 30% off our entire display. Stop by to peruse our latest publications and pick up a free journal sample.

Cambridge Group LTD (225)
Westport, CT

The Cambridge Group focuses on careers in biostatistics, clinical data management, clinical systems, SAS programming, and more. Opportunities range from entry through executive levels—both permanent and contract—in the pharmaceutical and biotechnology industries.

Cambridge University Press (216, 218)
New York, NY

Cambridge's new titles in statistics, biostatistics, econometrics, mathematical finance, and more are available at a 20% discount. New books in the Cambridge Series in Statistical and Probabilistic Mathematics include *Statistical Mechanics of Disordered Systems*, by Anton Bovier, and *The Coordinate-Free Approach to Linear Models*, by Michael J. Wichura.

Capital One (212)
Richmond, VA

Capital One Financial Corporation (*www.capitalone.com*) is a Fortune 500 company headquartered in McLean, Virginia, with 742 locations in the United States. A diversified financial services company, Capital One offers credit cards, auto loans, banking services, home loans, health care finance, personal loans, small-business services, and commercial banking products.

Colorado School of Public Health (128)
Denver, CO

The Department of Biostatistics and Informatics at the new Colorado School of Public Health produces leaders in statistical and informatics research and education. We offer programs, services, and expertise in design and analysis methods, informatics, statistical consulting, disease information services, research databases, and more. See our web site at *www.coloradoSPH.org*.

Cytel Inc. (312, 314)
Cambridge, MA

Cytel Inc. is a leading provider of clinical trial consulting services and specialized statistical software (East, StatXact, and LogXact) for the biopharmaceutical, academic, and research institute markets. Cytel's validated trial designs and implementation services reduce development time and costs, while increasing the probability of clinical success.

Eli Lilly and Company (303)
Indianapolis, IN

Eli Lilly and Company is a leading, innovation-driven corporation committed to developing a growing portfolio of best-in-class and first-in-class pharmaceutical products that help people live longer, healthier, more active lives. We are committed to providing answers that matter—through medicines and information—for the world's most urgent medical needs.

Elsevier (228, 230)
New York, NY

Elsevier/Academic Press delivers world-class content to statisticians and mathematicians, from journals and textbooks to corporate and clinical research references. Come browse our new and bestselling books in all areas of statistics and from renowned authors such as Sheldon Ross, Robert Riffenburgh, and C. R. Rao. Conference discounts apply, and sample journals are available.

Fannie Mae (219)
Washington, DC

Fannie Mae is a shareholder-owned company with a public mission. The company has a federal charter and operates to ensure mortgage bankers and other lenders have enough funds to lend to home buyers at low rates. In 2008, we mark our 70th year of service to America's housing market.

Google (421)
Mountainview, CA

Google's innovative search technologies connect millions of people around the world with information every day. Founded in 1998 by Stanford PhD students Larry Page and Sergey Brin, Google today is a top web property in all major global markets. Google's targeted advertising program provides businesses of all sizes with measurable results, while enhancing the overall web experience for users. Google is headquartered in Silicon Valley with offices throughout the Americas, Europe, and Asia. For more information, visit *www.google.com*.

Hawkes Learning Systems (121)
Charleston, SC

Discover the benefits of using interactive software in teaching and learning statistics. Hawkes Learning Systems promotes grade improvement and motivates students to learn by providing tutorials, unlimited practice, helpful feedback from artificial intelligence, and mastery-based homework. Come see a demonstration of our state-of-the-art test generator, online grade book, and student courseware.

IRS/Statistics of Income (409)
Washington, DC

The Statistics of Income (SOI) Division produces data compiled from tax and information returns filed with the Internal Revenue Service. SOI data include financial information on individuals, business taxpayers, tax-exempt organizations, and more. Data are available through publications, electronic databases, Tax Stats (*www.irs.gov/taxstats*), and SOI's Statistical Information Services at (202) 874-0410.

Insightful Corporation (305, 307)
Seattle, WA

Insightful Corporation (NASDAQ:IFUL) is a provider of predictive analytics and reporting solutions that gives companies the knowledge to act. Insightful products S-PLUS, Insightful Miner, and S-PLUS Server allow customers to perform sophisticated statistical data analysis and data mining and create high-quality graphics. For more information, visit *www.insightful.com*.

Institute of Mathematical Statistics (100)
Beachwood, OH

The IMS is an international professional and scholarly society devoted to the development, dissemination, and application of statistics and probability. The institute currently has about 4,500 members in all parts of the world.

JMP, a business unit of SAS (200, 202)
Cary, NC

JMP, a division of SAS Institute, develops JMP software, which brings comprehensive data analysis to the desktop, empowering users to interactively explore, visualize, and understand their data. Interactive. Comprehensive. Highly visual. That just begins to describe JMP statistical discovery software. It's the SAS product that dynamically links statistics with graphics right on your desktop, empowering you to explore data interactively and bring understanding to your world.

JSM 2009 Washington, DC (105)
Alexandria, VA

Visit the booth for Washington, DC—host of JSM 2009—and find out more about "Statistics: From Evidence to Policy." Get information about the conference hotels, registration costs, and Washington, DC.

John Deere Credit (419)
Johnston, IA

Deere & Company, founded in 1837 and now collectively called John Deere, has grown from a one-man blacksmith shop into a worldwide corporation that today does business in more than 160 countries and employs approximately 43,000 people. John Deere consists of three equipment operations—agricultural, commercial, and consumer—and construction and forestry. John Deere Credit is one of John Deere's support operations, providing financing to John Deere customers and dealers.

John Wiley & Sons (300, 302, 304, 306)
Hoboken, NJ

Founded in 1807, John Wiley & Sons Inc. provides must-have content and services to customers worldwide. Its core businesses include scientific, technical, and medical journals; encyclopedias, books, and online products and services; professional and consumer books and subscription services; and educational materials for undergraduate and graduate students and lifelong learners. Wiley's internet site can be accessed at *www.wiley.com*.

Johnson & Johnson Family of Companies (420)
New Brunswick, NJ

Johnson & Johnson, through its operating companies, is the world's most comprehensive and broadly based manufacturer of health care products, as well as a provider of related services for the consumer, pharmaceutical, and medical devices and diagnostics markets. Johnson & Johnson operating companies employ approximately 113,000 men and women in 57 countries.

Kforce Clinical Research (113)
Tampa, FL

Kforce Clinical Research provides full-range outsourcing alternatives and traditional staffing services for the biopharmaceutical industries. Established in 1988, Kforce Clinical Research is a leader in hybrid solutions. Our expertise includes clinical trial monitoring and management, drug safety and surveillance, clinical data management, biostatistics, data entry, and clinical application development.

MacKichan Software (408)
Poulsbo, WA

Scientific WorkPlace 5.5 simplifies writing, sharing, and doing mathematics. A click of a button allows you to typeset in LaTeX. The integrated computer algebra system lets you solve and plot equations; animate 2D and 3D plots; rotate, move, and fly through 3D plots; create 3D implicit plots; and more.

McGraw-Hill/Irwin (217)
New York, NY

McGraw-Hill/Irwin, the leading business and economics publisher, provides today's educators with digital solutions and support. We'll create your course web site, provide current events through the web, place your book on CD-ROM, and deliver from the web. You have access to the power of McGraw-Hill/Irwin for the life of your adoption.

MedFocus LLC (231)
Chicago, IL

MedFocus offers clinical research contract outsourcing and staffing specifically to the pharmaceutical, biotechnology, and medical device industries. MedFocus allows you to maintain consistency with high-quality consulting while managing variability in clinical work demand without headcount issues. For more information, visit *www.medfocus.com*.

Minitab Inc. (112, 114)
State College, PA

Minitab 15 is the leading software for statistics education worldwide. It is accurate, reliable, and easy to use, with powerful graphics abilities that let you create stunning and informative graphs. Minitab integrates into curriculums seamlessly and affordably and is used at more than 4,000 colleges and universities. Free trial version at *www.minitab.com/minitab*.

NCSS (213)
Kaysville, UT

With more than 25 years' experience providing statistical software, NCSS is one of the leaders in this industry. We are displaying the latest releases of NCSS and PASS. Of particular interest is PASS' ability to perform power analysis for mixed models, log-rank tests in nonproportional hazards situations, and microarrays.

National Center for Health Statistics (130)
Hyattsville, MD

The NCHS exhibit will showcase the various NCHS programmatic areas with an emphasis on statistical research and methodology. The exhibit will allow attendees to view and acquire a host of publications, electronic products, and other promotional products.

National Death Index – NCHS (131)
Hyattsville, MD

The National Death Index (NDI) is a central computerized index of death record information on file in the state vital statistics offices. Working with these state offices, NCHS established the NDI as a resource to aid epidemiologists and other health and medical investigators with their mortality ascertainment activities.

National Security Agency (107, 109)
Ft. Meade, MD

The National Security Agency is a federal government agency that provides foreign signals intelligence to decisionmakers and protects U.S. national security information systems.

Oxford University Press (115, 117)
New York, NY

Oxford University Press is the internationally recognized leader in university press publishing. Please visit us to see the latest in stats publishing from Oxford. Featured titles will include *Statistics in the Law* and *Statistical Methods for Estimating Petroleum Resources*.

PSFSolutions (426)
King of Prussia, PA

PSFSolutions provides a full range of consulting and staffing services to pharmaceutical, biotechnology, and medical device companies. With more than 20 years of experience in drug and medical device development, our senior staff can assist you in ensuring your development program is successful.

Palisade Corporation (413)
Ithaca, NY

Palisade Corporation is the maker of the world's leading risk and decision analysis software, all-new @RISK 5.0 and DecisionTools Suite for Microsoft Excel. @RISK 5.0 performs Monte Carlo simulation in your spreadsheets. DecisionTools Suite also includes StatTools—which adds accurate, robust statistics functions to Excel—and NeuralTools neural networks software.

Pearson (318, 320)
Upper Saddle River, NJ

Pearson, a premier college textbook publisher, will display statistics textbooks ranging from the introductory level to more advanced and specialized courses. Our dedicated, focused team of editors and marketers has one goal: make your statistics book a success. To that end, we are pleased to present the most creative, easy-to-use, well-integrated teaching and learning tools available for your courses.

Placemart Personnel Service (324)
Lanoka Harbor, NJ

Placemart Personnel Service specializes in nationwide executive search services in clinical drug and medical product R&D. For more than 40 years, we have been matching jobs and job candidates in biostatistics. Typical positions include directors, managers, project managers, group leaders, biostatisticians, data analysts, and statistical programmers. For additional details, visit *www.placemart.com*.

REvolution Computing (415, 417)
New Haven, CT

REvolution Computing is the leading commercial provider of software and support for the statistical computing language known as "R." We enable statisticians, scientists, and others to derive meaning from large sets of mission-critical data in record time and create predictive models that help answer their most difficult questions. At REvolution Computing, "we do the math."

RTI International (125, 224)
Research Triangle Park, NC

With projects in more than 40 countries and a staff of more than 2,600, RTI International offers research and technical solutions to governments and businesses worldwide in the areas of health and pharmaceuticals, education and training, surveys and statistics, advanced technology, democratic governance, economic and social development, energy, and the environment.

SAGE Publications (119)
Thousand Oaks, CA

SAGE Publications—an independent, international publisher in the social sciences, technology, and medicine—provides journals, books, and electronic media of the highest caliber. Researchers, students, and professionals have relied on our innovative resources for more than 40 years. Please stop by our booth or visit us at *www.sagepub.com*.

SAS Education (207, 209)
Cary, NC

SAS' Higher Education Consulting group can help your university or college incorporate SAS into your curriculum with our programs, services, and events, many of which are offered free of charge. Our Global Certification group helps you put your SAS skills to the test and can add credibility to your résumé.

SAS Publishing (204, 206, 208)
Cary, NC

Visit booth #204 to learn more about saving 20% on orders placed or mailed to us by August 29, new SAS product documentation titles, new SAS Press Series titles and SAS Learning Edition 4.1. SAS Publishing staff is available to answer any questions and assist you with your orders. Enjoy the conference!

SAS, SAMS (201, 203, 205)
Cary, NC

SAS will exhibit its analytical software for statistics, data mining, econometrics, and statistical quality control. Please visit the SAS booth to learn more about SAS 9.2, including the latest in statistical graphics and new software for Bayesian analysis.

SIAM (106)
Philadelphia, PA

Visit the shared ASA-SIAM book booth for a 30% discount on titles in the ASA-SIAM Series on Statistics and Applied Probability and on a wide selection of other SIAM books. Complete our annual survey and receive a gift! Find more information about SIAM books and the ASA-SIAM series at *www.siam.org/books*.

SPSS Inc. (301, 400)
Chicago, IL

SPSS Inc. is a leading global provider of predictive analytics software and solutions. The company's predictive analytics technology improves business processes by giving organizations consistent control over decisions made every day. Incorporating predictive analytics into their daily operations enables organizations to meet business goals and achieve measurable competitive advantage.

SYSTAT Software Inc. (405)
Chicago, IL

SYSTAT Software is a leading developer of specialized scientific software products for statistical analysis, technical graphing, and presentation. Its flagship product, SYSTAT 12, is a desktop statistics package that features advanced statistical models and algorithms, an intuitive user interface, and cutting-edge charts and graphics. Please visit us at *www.systat.com*.

Salford Systems (116)
San Diego, CA

Salford Systems develops advanced statistical and data mining software, including the CART decision tree, MARS nonlinear automated regression, TreeNet boosted decision trees, and Random Forests. Salford Systems strives to make the best academic research easily usable by the practicing data analyst and has recently won several distinguished international honors.

Smith Hanley Associates (220)
New York, NY

Our two divisions—permanent placement and contract staffing—offer targeted recruitment in statistics, biostatistics, SAS programming, data management, market research, health outcomes, and epidemiology. Since 1980, we've provided clients and recruits, dedicated service, experience, and insight into industry trends for positions at all levels. Permanent: *www.smithhanley.com*. Contract: *www.smithhanleyconsulting.com*.

Space-Time Research (126)
Victoria, Australia

Space-Time Research (STR) is the global leader in self-service business intelligence for government. It's EASIER, FASTER, and SAFER SuperSTAR solution allows users to quickly build and manipulate their own reports and easily visualize information in charts and maps while protecting data privacy and facilitating data dissemination. Visit us online at *www.spacetimeresearch.com*.

Springer (326, 327, 328, 329, 330, 331)
New York, NY

Springer is one of the largest international publishers of scientific books (4,000 new books per year). Additionally, it publishes more than 1,200 journals. Springer's statistics book program is world-renowned and has produced many bestselling textbooks, monographs, and reference works. Notable publications include the Springer Series in Statistics, *Statistics for Biology and Health*, and *Statistics and Computing*.

StatPoint Technologies (120)
Herndon, VA

From StatPoint Technologies, the STATGRAPHICS line of statistical analysis software includes STATGRAPHICS Centurion XV.II, available in BiLingual and MultiLingual editions; STATGRAPHICS Mobile, for Windows Mobile 5 handhelds; STATGRAPHICS Online Services; and STATGRAPHICS Six Sigma Wizard. Statistical modeling, quality control, Six Sigma toolbox, SPC, and DOE functionality. Training, statistical consulting offered.

StatSoft (401, 403)
Tulsa, OK

StatSoft is the largest manufacturer of enterprise-wide quality control and improvement software systems in the world. StatSoft's software is used in mission-critical manufacturing applications; in regulated, FDA-controlled industries; and as a foundation for corporate-wide Six Sigma initiatives. STATISTICA products are supported by a network of 24 global offices.

StataCorp (425, 427, 429)
College Station, TX

Stata statistical software is a general purpose system intended for use by medical researchers, biostatisticians, epidemiologists, economists, sociologists, political scientists, geographers, psychologists, social scientists, and other research professionals. It is available for Windows, Macintosh, and UNIX computers and provides full data management, graphics, statistical, and matrix language capabilities.

Statistical Society of Canada (102)
Toronto, ON

The Statistical Society of Canada's mission is to encourage the development and use of statistics and probability in Canada. It is the Canadian equivalent of the American Statistical Association. The Statistical Society of Canada also offers two levels of accreditation: the Professional Statistician (P.Stat.) and the Associate Statistician (A.Stat.).

Statistical Solutions (321)
Saugus, MA

Statistical Solutions specializes in the development of unique statistical software for statisticians, data managers, and clinicians. Our portfolio of products includes nQuery Advisor Sample Size & Power Calculation, Solas for Missing Data Analysis, EquivTest for equivalence and bioequivalence studies, and BMDP2007 statistical software.

U.S. Census Bureau (214)
The Census Bureau's collections include socioeconomic information—2010 Census and American Community Survey—topics such as population, housing, and income; and business and industry statistics. To identify changes or track trends at the local, state, or national levels or to see what's new, please visit Booth 214. *www.census.gov*.

U.S. Dept. of Ed/Institute of Education Sciences (316)
Washington, DC

IES is the research arm of the U.S. Department of Education. Its mission is to provide rigorous evidence on which to ground education practice and policy. This mission is accomplished through the work of its four centers: National Center for Education Statistics, National Center for Education Research, National Center for Education Evaluation and Regional Assistance, and National Center for Special Education Research.

USDA/NASS (108)
Washington, DC

The National Agricultural Statistics Service (NASS) administers the USDA's program for publishing timely agricultural statistics, which includes 500 statistical reports annually. In addition, NASS conducts the U.S. Census of Agriculture, the most comprehensive source of data portraying our nation's agriculture for each county, state, and the United States. The 2007 Census of Agriculture results will be at *www.nass.usda.gov* in 2009.

W.H. Freeman & Company (309)
New York, NY

W.H. Freeman & Company publishes high-quality textbooks and media in statistics. Visit Booth 309 for our bestselling David S. Moore titles, including *Introduction to the Practice of Statistics* (6th ed.) and *The Practice of Statistics in Life Sciences*. Also, learn about StatsPortal, our online teaching and learning solution for statistics, at *www.whfreeman.com/statsportal*.

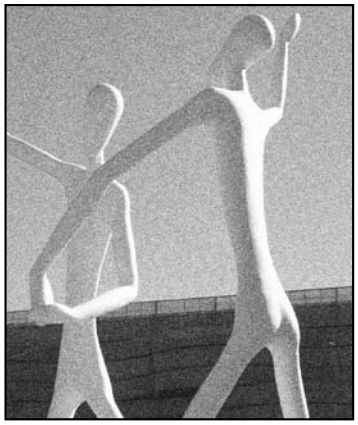
Wolfram Research (221)
Champaign, IL

Wolfram Research is the world's leading developer of computational software for science and technology, offering organization-wide computing solutions. Its flagship product, Mathematica, provides integrated support for both classical statistics and modern, large-scale data analysis and visualization. Visit *www.wolfram.com* for more information.

Continuing Education-at-a-Glance

Time	Course	Instructor(s)	Course Title
Saturday, August 2, 2008			
8:30 a.m.–5:00 p.m.	CE_01C	Oliver Schabenberger/Walter Stroup	Generalized Linear Mixed Models: Theory and Applications
8:30 a.m.–5:00 p.m.	CE_02C	Russell D. Wolfinger/Carl Langefeld	Genetic and Microarray Data Analysis
8:30 a.m.–5:00 p.m.	CE_03C	Alexander N. Donev/Randy Tobias	Optimal Experimental Designs
8:30 a.m.–5:00 p.m.	CE_04C	Frank E. Harrell, Jr.	Regression Modeling Strategies
8:30 a.m.–5:00 p.m.	CE_05C	Scott R. Evans/Lee-Jen Wei/Lu Tian/Lingling Li	Hot Topics in Clinical Trials
8:30 a.m.–5:00 p.m.	CE_06C	Richard De Veaux	Successful Data Mining in Practice
Sunday, August 3, 2008			
8:30 a.m.–5:00 p.m.	CE_01C	Oliver Schabenberger/Walter Stroup	Generalized Linear Mixed Models: Theory and Applications
8:00 a.m.–noon	CE_07C	Raymond Carroll/Nilanjan Chatterjee	Design and Analysis of Epidemiologic Studies of Gene-Environment Interactions
8:30 a.m.–5:00 p.m.	CE_08C	Peter F. Thall/J. Kyle Wathen	Modern Practical Bayesian Clinical Trial Design
8:30 a.m.–5:00 p.m.	CE_09C	Scott C. Schmidler	Statistical Challenges in Proteomics
8:30 a.m.–5:00 p.m.	CE_10C	Doug Zahn	Systematically Improving Your Professional Practice
8:30 a.m.–5:00 p.m.	CE_11C	George Casella	Principles of Statistical Design
1:00 p.m.–5:00 p.m.	CE_12C	Steven K. Thompson	Sampling in Networks
Monday, August 4, 2008			
8:00 a.m.–noon	CE_13C	Narinder Nangia/Martin King/Jane Qian	Evaluating Probability of Success for Internal Decisionmaking in Early Drug Development
8:00 a.m.–noon	CE_14C	Knut M. Wittkowski/Tingting Song	U-Statistics for Scoring Multivariate Data: From Sports to Genetics
8:30 a.m.–5:00 p.m.	CE_15C	Christy Chuang-Stein/Alex Dmitrienko/ Keaven Anderson	Analysis of Clinical Trials: Theory and Applications
8:30 a.m.–5:00 p.m.	CE_16C	Antony Unwin/Heike Hofmann	Graphics of Large Data Sets
8:30 a.m.–5:00 p.m.	CE_17C	Margaret S. Pepe/Holly Janes/Todd Alonzo	Statistical Evaluation of Medical Tests and Biomarkers for Classification
8:30 a.m.–5:00 p.m.	CE_18C	Jennifer A. Hoeting/Geof H. Givens	Computational Statistics: Methods for Monte Carlo Integration and Optimization
1:00 p.m.–5:00 p.m.	CE_19C	Joseph Hilbe	Methods for Identifying and Dealing with Overdispersed Regression Models
1:00 p.m.–5:00 p.m.	CE_20C	Thomas W. O'Gorman	Adaptive Analysis of Data: Tests of Significance and Confidence Intervals
Tuesday, August 5, 2008			
8:00 a.m.–noon	CE_21C	Danyu Lin	Analysis of Multivariate Failure Time Data
8:00 a.m.–noon	CE_22C	Rafe Donahue	Fundamental Statistics Concepts in Presenting Data: Principles for Constructing Better Graphics
8:30 a.m.–5:00 p.m.	CE_23C	Bradley P. Carlin/Thomas A. Louis	Bayesian Methods and Software for Data Analysis
8:30 a.m.–5:00 p.m.	CE_24C	Geert Verbeke/Geert Molenberghs	Models for Discrete Repeated Measures
8:30 a.m.–5:00 p.m.	CE_25C	Linda Young/Ramon Littell	Mixed Models for the Practicing Statistician
8:30 a.m.–5:00 p.m.	CE_26C	Paul Allison	Multiple Imputation of Missing Data
1:00 p.m.–5:00 p.m.	CE_27C	Ingram Olkin	Meta-analysis: Statistical Methods for Combining the Results of Independent Studies
1:00 p.m.–5:00 p.m.	CE_28C	Hongwei Zhao/Heejung Bang	Analysis of Censored Health Outcomes Data: Developments for the Last 10 Years
Wednesday, August 6, 2008			
8:00 a.m.–9:45 a.m.	CE_29T	Michael Borenstein/Hannah R. Rothstein	Meta-analysis: Concepts and Applications
8:00 a.m.–9:45 a.m.	CE_30T	Janet D. Elashoff/Brian Sullivan	Determining Sample Size and Power in Study Planning: nQuery Advisor 7.0
8:00 a.m.–9:45 a.m.	CE_31T	Rick Wicklin	An Introduction to Stat Studio for SAS/STAT Users
8:00 a.m.–9:45 a.m.	CE_32T	Shawn Harahush	From Software to Solutions in Statistics and Risk Analysis
10:00 a.m.–11:45 a.m.	CE_33T	Cyrus Mehta	EastAdapt: A Module for Late Stage Adaptive Trial Design Within the East 5 Software System
10:00 a.m.–11:45 a.m.	CE_34T	Jeffrey Pitblado	Survey Data Analysis with Stata
10:00 a.m.–11:45 a.m.	CE_35T	Weijei Cai	Nonparametric Regression Modeling in SAS Software
10:00 a.m.–11:45 a.m.	CE_36T	Mikhail Golovnya	Introduction to CART: Data Mining with Decision Trees
1:00 p.m.–2:45 p.m.	CE_37T	Yannis Jemiai/Pralay Senchuadhuri	New Software for the Design, Analysis, and Reporting of Bioequivalence and Clinical Pharmacology Trials
1:00 p.m.–2:45 p.m.	CE_38T	Angela Pitts/G. Gordon Brown	New Procedures and Features for Clustered and Survey Data Analysis in SUDAAN Release 10
1:00 p.m.–2:45 p.m.	CE_39T	Fang Chen	Introduction to Bayesian Analysis Using SAS Software
1:00 p.m.–2:45 p.m.	CE_40T	Mikhail Golovnya	Introduction to MARS: Predictive Modeling with Nonlinear Automated Regression Tools
3:00 p.m.–4:45 p.m.	CE_41T	Anthiyur Kannappan/ Pralay Senchuadhuri	Exact Methods Module for East 5: Design, Simulate, Analyze, and Monitor Binomial Endpoint Trials by Exact Inference Methods
3:00 p.m.–4:45 p.m.	CE_42T	Rajesh Seluker	Structural Analysis of Time Series Using the SAS/ETS UCM Procedure
3:00 p.m.–4:45 p.m.	CE_43T	Mikhail Golovnya	Advances in Data Mining: Jerome Friedman's TreeNet/MART and Leo Breiman's Random Forests

JSM 08
DENVER



You are invited to the **First-Time Attendee**

Orientation and Reception

Hyatt Regency Denver, Capitol Ballroom 1–7
Sunday, August 3, 6:00 p.m. – 7:30 p.m.

Speaker: Mary Gray, American University

COMMUNICATING STATISTICS: SPEAKING OUT AND REACHING OUT
JSM
DENVER, COLORADO
AUGUST 3–7, 2008

Open to All First-Timers

Learn how to get the most out of your first JSM experience, meet new people, and network.

This reception is sponsored by the ASA, ENAR, IMS, SSC, WNAR, and the Caucus for Women in Statistics

JSM 2008

IMS

Member Social

When?
Monday, August 4
5:30–7:00 p.m.

Where?
HY-Mineral Hall C

All IMS members are welcome

This is an opportunity to see old friends, network with colleagues and relax in an intimate setting. Appetizers and drinks will be served.

If you wish to join the IMS, but haven't, please come by the reception and we will have applications available, or you can join online at www.imstat.org

IMS members socializing in Salt Lake City

JSM 2008

IMS

Welcome Reception

When?
Tuesday, August 5
5:30–6:30 p.m.

Where?
HY-Granite A

New Members, New Graduates and Students

All members who have joined the IMS during the past two years, all IMS New Graduate members and all IMS student members are encouraged to attend. Appetizers and an open bar will be available.

If you wish to join the IMS, but haven't, please come by the reception and we will have applications available, or you can join online at www.imstat.org

A few of the participants at last year's Welcome Reception at JSM in Salt Lake City

IMS membership is FREE for students!

Techical Sessions-at-a-Glance

Room	Location of Meeting Room	Floor	JSM Activity
101	Colorado Convention Center	1st	Technical Sessions
102	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
103	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
104	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
105	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
106	Colorado Convention Center	1st	Technical Sessions
107	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
108	Colorado Convention Center	1st	Technical Sessions
109	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
110	Colorado Convention Center	1st	Technical Sessions
111	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
112	Colorado Convention Center	1st	Technical Sessions
113	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
201	Colorado Convention Center	1st	CE; Technical Sessions; Committee/Business Meetings
202	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
203	Colorado Convention Center	1st	CE; Technical Sessions; Committee/Business Meetings
204	Colorado Convention Center	1st	CE; Technical Sessions; Committee/Business Meetings
205	Colorado Convention Center	1st	CE; Technical Sessions; Committee/Business Meetings
206	Colorado Convention Center	1st	Technical Sessions; Committee/Business Meetings
207	Colorado Convention Center	1st	CE; Technical Sessions; Committee/Business Meetings
208	Colorado Convention Center	1st	Coffee Roundtables; Committee/Business Meetings
210	Colorado Convention Center	1st	CE; Technical Sessions
212	Colorado Convention Center	1st	CE; Technical Sessions
601	Colorado Convention Center	1st	Technical Sessions
602	Colorado Convention Center	1st	Technical Sessions
603	Colorado Convention Center	1st	Technical Sessions
604	Colorado Convention Center	1st	Technical Sessions
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701	Colorado Convention Center	1st	Technical Sessions
702	Colorado Convention Center	1st	Technical Sessions
703	Colorado Convention Center	1st	Technical Sessions
704	Colorado Convention Center	1st	Technical Sessions
705	Colorado Convention Center	1st	Technical Sessions
706	Colorado Convention Center	1st	Technical Sessions
707	Colorado Convention Center	1st	Technical Sessions
708	Colorado Convention Center	1st	Technical Sessions
709	Colorado Convention Center	1st	Technical Sessions
710	Colorado Convention Center	1st	Technical Sessions

Room	Location of Meeting Room	Floor	JSM Activity
711	Colorado Convention Center	1st	Technical Sessions
712	Colorado Convention Center	1st	Technical Sessions
A Lobby	Colorado Convention Center	1st	Registration, Cyber Center, Marketplace, Committee Tables
Four Seasons Ballroom	Colorado Convention Center	Lower Level	Plenary/Keynote Sessions; Opening Mixer
F Lobby	Colorado Convention Center	1st	Poster Sessions
Hall A	Colorado Convention Center	2nd	Career Placement Service
Hall F	Colorado Convention Center	2nd	JSM EXPO, Society Booths
Lobby F1-F2 Offices	Colorado Convention Center	1st	Speaker Management Room
Agate A	Hyatt Regency Denver	3rd	Committee/Business Meetings
Agate B	Hyatt Regency Denver	3rd	Committee/Business Meetings
Agate C	Hyatt Regency Denver	3rd	Committee/Business Meetings
Capitol Ballroom 1	Hyatt Regency Denver	4th	Committee/Business Meetings; CTW
Capitol Ballroom 2	Hyatt Regency Denver	4th	Committee/Business Meetings; CTW
Capitol Ballroom 3	Hyatt Regency Denver	4th	Committee/Business Meetings; CTW
Capitol Ballroom 4	Hyatt Regency Denver	4th	Committee/Business Meetings; Roundtables with Lunch
Capitol Ballroom 5	Hyatt Regency Denver	4th	Committee/Business Meetings; Roundtables with Lunch
Capitol Ballroom 6	Hyatt Regency Denver	4th	Committee/Business Meetings; Speaker with Lunch
Capitol Ballroom 7	Hyatt Regency Denver	4th	Committee/Business Meetings; CTW
Centennial Ballroom F	Hyatt Regency Denver	3rd	Committee/Business Meetings
Centennial Ballroom G	Hyatt Regency Denver	3rd	Committee/Business Meetings
Centennial Ballroom H	Hyatt Regency Denver	3rd	Committee/Business Meetings
Granite A	Hyatt Regency Denver	3rd	Committee/Business Meetings
Granite B	Hyatt Regency Denver	3rd	Committee/Business Meetings
Granite C	Hyatt Regency Denver	3rd	Committee/Business Meetings
Limestone	Hyatt Regency Denver	4th	Committee/Business Meetings
Marble	Hyatt Regency Denver	4th	Committee/Business Meetings
Mineral Hall A	Hyatt Regency Denver	3rd	Committee/Business Meetings
Mineral Hall B	Hyatt Regency Denver	3rd	Committee/Business Meetings
Mineral Hall C	Hyatt Regency Denver	3rd	Committee/Business Meetings
Mineral Hall D	Hyatt Regency Denver	3rd	Committee/Business Meetings
Mineral Hall E	Hyatt Regency Denver	3rd	Committee/Business Meetings
Mineral Hall F	Hyatt Regency Denver	3rd	Committee/Business Meetings
Mineral Hall G	Hyatt Regency Denver	3rd	Committee/Business Meetings
Monarch Suite	Hyatt Regency Denver	See errata	Committee/Business Meetings
Quartz A	Hyatt Regency Denver	3rd	Committee/Business Meetings
Quartz B	Hyatt Regency Denver	3rd	Committee/Business Meetings
Sandstone	Hyatt Regency Denver	4th	Committee/Business Meetings

SUNDAY, AUGUST 3

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

Sponsor	2:00 p.m.	4:00 p.m.
American Statistical Association		**35 CC-607**
Business & Economic Statistics Section	15 CC-104	**38 CC-110** 65 CC-112
Biometrics Section	13 CC-607 31 CC-605 33 CC-710	**40 CC-702** 64 CC-602 66 CC-704
Biopharmaceutical Section	14 CC-708 34 CC-610-612	49 CC-604 67 CC-601 68 CC-706
Committee on Applied Statisticians		48 CC-608
Section on Statistical Consulting	12 CC-702	
Committee on Outreach Education		**45 CC-108**
ASA Colorado-Wyoming Chapter	**8 CC-101**	
Section on Statistical Computing	**1 CC-709** **6 CC-705** 28 CC-711	54 CC-708 61 CC-711
Section on Statisticians in Defense and National Security	**4 CC-102**	
Section on Statistical Education	**10 CC-106** 21 CC-108	55 CC-106 60 CC-701
Eastern North American Region of the International Biometric Society	32 CC-608	**35 CC-607** **36 CC-603**
Section on Statistics and the Environment	**3 CC-113**	59 CC-109
Section on Statistics in Epidemiology	19 CC-602 25 CC-604 26 CC-606	58 CC-606
Section on Government Statistics	**11 CC-103**	52 CC-107
Section on Statistical Graphics		**42 CC-605**
Section on Health Policy Statistics	29 CC-111	50 CC-111
Institute of Mathematical Statistics	**9 CC-703** 27 CC-701	**35 CC-607** **43 CC-610-612**
Journal of Computational and Graphical Statistical Science	**5 CC-603**	
Memorial		**44 CC-703**
Section on Statistics and Marketing		47 CC-202
Mu Sigma Rho		**46 CC-103**
Section on Nonparametric Statistics	17 CC-707	53 CC-710 63 CC-712
Section on Quality & Productivity		**41 CC-709**
Section on Risk Analysis	18 CC-706	
Section on Bayesian Statistical Sciences	16 CC-110 30 CC-112	**37 CC-102** 51 CC-104
Social Statistics Section	23 CC-109	69 CC-113
Section on Physical and Engineering Sciences	**2 CC-601** 22 CC-704	62 CC-707
Section on Survey Research Methods	20 CC-105 24 CC-107	**39 CC-101** 56 CC-705 57 CC-105
Statistical Society of Canada		**35 CC-607**
Western North American Region of the International Biometric Society	**7 CC-712**	**35 CC-607**

MONDAY, AUGUST 4

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.
American Statistical Association	**77 CC-605**		**164 CC-605**	**200 CC-Four Seasons Ballroom**
Business & Economic Statistics Section	**79 CC-110** 106 CC-112	129 CC-105 144 CC-107	196 CC-108 **199 CC-F Lobby**	
Biometrics Section	89 CC-712 107 CC-606 108 CC-610-612	128 CC-610-612 134 CC-606 145 CC-604 146 CC-602	**166 CC-607** 185 CC-704 195 CC-608 197 CC-712 **199 CC-F Lobby**	
Biopharmaceutical Section	**77 CC-605** 90 CC-608 109 CC-607 110 CC-711	**121 CC-605** 147 CC-601 148 CC-607	177 CC-603 198 CC-610-612 **199 CC-F Lobby**	
Committee on Applied Statisticians	**87 CC-202**			
Section on Statistical Consulting	**113 CC-F Lobby**	125 CC-707	189 CC-602 **199 CC-F Lobby**	
Council of Chapters		**124 CC-202**		
Section on Statistical Computing	101 CC-105	139 CC-108	**171 CC-601** 190 CC-701 **199 CC-F Lobby**	
Committee on Statistics and Disability			**173 CC-202**	
Section on Statisticians in Defense and National Security	**81 CC-102**		182 CC-706	
Section on Statistical Education	96 CC-106 100 CC-108 **112 CC-F Lobby** **113 CC-F Lobby**	133 CC-106 138 CC-101	**175 CC-106** 181 CC-104	
Eastern North American Region of the Intl. Biometric Society	**77 CC-605** **85 CC-603**	143 CC-608	**164 CC-605** **172 CC-708**	**200 CC-Four Seasons Ballroom**
Section on Statistics and the Environment	99 CC-701	**116 CC-710** 137 CC-708	183 CC-113	
Section on Statistics in Epidemiology	**77 CC-605** **78 CC-710** 111 CC-604 **113 CC-F Lobby**	136 CC-712	176 CC-606 188 CC-604 **199 CC-F Lobby**	
Section on Government Statistics	92 CC-602	**123 CC-704**	192 CC-101 **199 CC-F Lobby**	
Section on Statistical Graphics	**86 CC-103**		**199 CC-F Lobby**	

MONDAY, AUGUST 4

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.
Section on Health Policy Statistics	104 CC-706	**118 CC-706**	179 CC-111 **199 CC-F Lobby**	
Institute of Mathematical Statistics	**77 CC-605** 91 CC-109 105 CC-107	**120 CC-113**	**164 CC-605** 194 CC-711 **199 CC-F Lobby**	**200 CC-Four Seasons Ballroom**
International Society of Bayesian Analysis		**122 CC-102**		
JASA, Theory and Methods		**114 CC-703**		
Memorial	**80 CC-703**			
Section on Statistics and Marketing		132 CC-109	**168 CC-102** **199 CC-F Lobby**	
Section on Nonparametric Statistics	93 CC-111 103 CC-113	131 CC-110 141 CC-112	**165 CC-702**	
Committee on Scientific and Public Affairs			**164 CC-605**	
Section on Quality and Productivity	102 CC-705 **113 CC-F Lobby**		**169 CC-707**	
Section on Risk Analysis		**119 CC-705**	180 CC-709 **199 CC-F Lobby**	
Section on Bayesian Statistical Sciences	**83 CC-104** 95 CC-101 **113 CC-F Lobby**	130 CC-104 142 CC-103	178 CC-110 193 CC-112 **199 CC-F Lobby**	
Section on Statistics in Sports			**170 CC-703**	
Social Statistics Section	94 CC-708	135 CC-701	**164 CC-605** **174 CC-109** 199 CC-F Lobby	
Section on Physical and Engineering Sciences	88 CC-707 **113 CC-F Lobby**	**115 CC-709** 140 CC-711	191 CC-705 **199 CC-F Lobby**	
Section on Survey Research Methods	**77 CC-605** **82 CC-704** 97 CC-702 98 CC-601	127 CC-702 **149 CC-F Lobby**	**164 CC-605** **167 CC-107** 186 CC-103 187 CC-105	
Statistical Society of Canada	**77 CC-605** **84 CC-709**		**164 CC-605**	**200 CC-Four Seasons Ballroom**
Section on Teaching of Statistics in the Health Sciences	**77 CC-605** **113 CC-F Lobby**	126 CC-111		
Western North American Region of the Intl. Biometric Society	**77 CC-605**	**117 CC-603**	**164 CC-605** 184 CC-710 **199 CC-F Lobby**	**200 CC-Four Seasons Ballroom**

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

TUESDAY, AUGUST 5

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.	8:00 p.m.
American Statistical Association	**207 CC-704** **208 CC-111**	**243 CC-111**		**326 CC-Four Seasons Ballroom**	**327 CC-Four Seasons Ballroom**
Business & Economic Statistics Section	221 CC-110 238 CC-112	273 CC-112 **279 CC-F Lobby**	310 CC-101 **294 CC-103**		
Biometrics Section	220 CC-606 237 CC-608 239 CC-604 **242 CC-F Lobby**	**245 CC-603** 255 CC-601 266 CC-606 274 CC-602 275 CC-604 **278 CC-F Lobby** **279 CC-F Lobby**	301 CC-604 322 CC-606 323 CC-608 **325 CC-F Lobby**	**326 CC-Four Seasons Ballroom**	**327 CC-Four Seasons Ballroom**
Biopharmaceutical Section	**215 CC-706** 240 CC-601 **242 CC-F Lobby**	258 CC-706 276 CC-704 **279 CC-F Lobby**	302 CC-702 324 CC-601 **325 CC-F Lobby**		
Section on Statistical Consulting	224 CC-710	**252 CC-705**	**325 CC-F Lobby**		
Council of Chapters		**247 CC-110**			
Current Index to Statistics	**207 CC-704**				
Section on Statistical Computing	223 CC-105 241 CC-101 **242 CC-F Lobby**	**250 CC-105** 277 CC-101	304 CC-110 317 CC-112 **325 CC-F Lobby**		
Section on Statisticians in Defense and National Security			305 CC-709		
Deming Lectureship Committee (DEM)				**326 CC-Four Seasons Ballroom**	
Section on Statistical Education	**209 CC-102** 227 CC-109	263 CC-109 269 CC-106	309 CC-109 316 CC-105		
Eastern North American Region of the Intl. Biometric Society	**207 CC-704** **208 CC-111** 236 CC-701 **242 CC-F Lobby**	**243 CC-111** **248 CC-702** **279 CC-F Lobby**	**298 CC-704**	**326 CC-Four Seasons Ballroom**	**327 CC-Four Seasons Ballroom**
Section on Statistics and the Environment	232 CC-707	**244 CC-708**	307 CC-712 325 CC-F Lobby		
Section on Statistics in Epidemiology	225 CC-603 231 CC-602 **242 CC-F Lobby**	267 CC-608 **279 CC-F Lobby**	**291 CC-603** 315 CC-602 **325 CC-F Lobby**		
Section on Government Statistics	234 CC-703	**249 CC-709**	300 CC-706		
Section on Statistical Graphics	**218 CC-107**	261 CC-103			
Section on Health Policy Statistics	233 CC-705 **242 CC-F Lobby**	257 CC-710 **279 CC-F Lobby**	**295 CC-605** **325 CC-F Lobby**		
International Indian Statistical Association	**210 CC-607**				
Institute of Mathematical Statistics	**207 CC-704** **208 CC-111** **211 CC-103**	**243 CC-111** **253 CC-108** **279 CC-F Lobby**	321 CC-108	**326 CC-Four Seasons Ballroom**	**327 CC-Four Seasons Ballroom**

TUESDAY, AUGUST 5

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.	8:00 p.m.
Journal of Business & Economic Statistics	**219 CC-206**				
Memorial			**299 CC-707**		
Section on Statistics and Marketing		268 CC-202 **279 CC-F Lobby**	306 CC-113		
Section on Nonparametric Statistics	**216 CC-113**	260 CC-107 271 CC-113	303 CC-104 320 CC-106		
Committee on Privacy and Confidentiality		**246 CC-707**			
Committee on Scientific and Public Affairs	**217 CC-605**				
Section on Quality and Productivity			**293 CC-102**		
Section on Risk Analysis		254 CC-703	318 CC-206 **325 CC-F Lobby**		
Statistical and Applied Mathematical Sciences Institute			**296 CC-705**		
Section on Bayesian Statistical Sciences	222 CC-108 235 CC-106	259 CC-102 272 CC-104 **279 CC-F Lobby**	**297 CC-107** 308 CC-111		
Section on Statistics in Sports	230 CC-104				
ASA Interest Group on Statistical Learning and Data Mining		**251 CC-206**			
Social Statistics Section	**212 CC-712**	262 CC-712	312 CC-711 **325 CC-F Lobby**		
Section on Physical and Engineering Sciences	**213 CC-708**	270 CC-701	319 CC-202 **325 CC-F Lobby**		
Section on Survey Research Methods	226 CC-711 229 CC-709	256 CC-605 264 CC-711 265 CC-607	**292 CC-708** 313 CC-607 314 CC-710		
Statistical Society of Canada	**207 CC-704** **208 CC-111**	**243 CC-111**		**326 CC-Four Seasons Ballroom**	**327 CC-Four Seasons Ballroom**
Technometrics			**290 CC-703**		
Section on Teaching of Statistics in the Health Sciences	228 CC-202				
Western North American Region of the Intl. Biometric Society	**207 CC-704** **208 CC-111** **214 CC-702** **242 CC-F Lobby**	**243 CC-111**	311 CC-701	**326 CC-Four Seasons Ballroom**	**327 CC-Four Seasons Ballroom**

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

WEDNESDAY, AUGUST 6

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.
American Statistical Association	**333 CC-207** **334 CC-205**			**454 CC-Four Seasons Ballroom**
Business & Economic Statistics Section	364 CC-210 367 CC-212	**377 CC-113** **405 CC-F Lobby**	451 CC-708	
Biometrics Section	348 CC-106 363 CC-202 365 CC-108 369 CC-F Lobby	**379 CC-102** 385 CC-101 392 CC-202 401 CC-204 403 CC-206 **405 CC-F Lobby**	430 CC-105 449 CC-101 450 CC-204 **453 CC-F Lobby**	**454 CC-Four Seasons Ballroom**
Biopharmaceutical Section	**334 CC-205** 366 CC-201 347 CC-104 **341 CC-102**	384 CC-104 404 CC-201 **405 CC-F Lobby**	431 CC-102 452 CC-104 **453 CC-F Lobby**	
Committee on Gay and Lesbian Concerns in Statistics	**343 CC-711**			
Section on Statistical Consulting	**339 CC-103**	388 CC-705		
Section on Statistical Computing	357 CC-701 369 CC-F Lobby	**370 CC-708** 397 CC-706 **405 CC-F Lobby**	435 CC-108 445 CC-212	
Committee of Presidents of Statistical Societies				**454 CC-Four Seasons Ballroom**
Section on Statisticians in Defense and National Security		**405 CC-F Lobby**	**421 CC-111**	
Section on Statistical Education	**338 CC-203** 351 CC-112 **369 CC-F Lobby**	390 CC-711 396 CC-712	436 CC-601 444 CC-701	
Eastern North American Region of the International Biometric Society	**333 CC-207** **334 CC-205** **342 CC-110**	391 CC-105 **405 CC-F Lobby**	**427 CC-201**	**454 CC-Four Seasons Ballroom**
Section on Statistics & the Environment	346 CC-706 **368 CC-F Lobby**	**373 CC-207** **405 CC-F Lobby**	442 CC-711 **453 CC-F Lobby**	
Section on Statistics in Epidemiology	350 CC-204 356 CC-206	389 CC-203 394 CC-107 395 CC-109 **405 CC-F Lobby**	**419 CC-103** 441 CC-206	
General Methodology		402 CC-210		
Section on Government Statistics	**334 CC-205** 344 CC-712		433 CC-703	
Section on Statistical Graphics		**405 CC-F Lobby**	**425 CC-205**	
Section on Health Policy Statistics	**340 CC-708**	383 CC-106		
International Association for Statistical Education		**371 CC-601**		

WEDNESDAY, AUGUST 6

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.
Institute of Mathematical Statistics	**333 CC-207** **334 CC-205** **336 CC-703** **369 CC-F Lobby**	400 CC-710 **405 CC-F Lobby**	**426 CC-207**	**454 CC-Four Seasons Ballroom**
JASA, Applications and Case Studies			**418 CC-109**	
Memorial	**335 CC-709**			
Section on Statistics and Marketing	352 CC-113	**405 CC-F Lobby**	443 CC-710	
Noether Award Committee		**372 CC-702**		
Section on Nonparametric Statistics	360 CC-705 361 CC-707 **369 CC-F Lobby**	387 CC-704 **405 CC-F Lobby**	434 CC-110 447 CC-112	
Section on Quality and Productivity	359 CC-105 **369 CC-F Lobby**	**405 CC-F Lobby**	**453 CC-F Lobby**	
Section on Risk Analysis	358 CC-101	**378 CC-703**	429 CC-106 **453 CC-F Lobby**	
Section on Bayesian Statistical Sciences	345 CC-111 362 CC-109	386 CC-709 399 CC-707	**424 CC-702** 432 CC-704 448 CC-706 **453 CC-F Lobby**	
Section on Statistics in Sports	**333 CC-207**		**453 CC-F Lobby**	
Social Statistics Section	**334 CC-205** 353 CC-710	**374 CC-108**	438 CC-712	
SPAIG Committee		382 CC-212		
Section on Physical and Engineering Sciences	349 CC-107 **369 CC-F Lobby**	398 CC-701	**420 CC-203** 446 CC-210	
Section on Survey Research Methods	**334 CC-205** **337 CC-702** 354 CC-601 355 CC-704	381 CC-110 393 CC-112	437 CC-709 439 CC-705 440 CC-707	
Statistical Society of Canada	**333 CC-207** **334 CC-205**	**375 CC-111**		**454 CC-Four Seasons Ballroom**
The American Statistician		**380 CC-205**		
Section on Teaching of Statistics in the Health Sciences	**334 CC-205**		**422 CC-113**	
Western North American Region of the Intl. Biometric Society	**333 CC-207** **334 CC-205**	**376 CC-103** **405 CC-F Lobby**	**428 CC-202**	**454 CC-Four Seasons Ballroom**
Committee on Women in Statistics			**423 CC-107**	

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

THURSDAY, AUGUST 7

Technical Sessions Key

15
Session Number

CC
Colorado Convention Center

104
Room Number

Listings in **bold** are invited sessions

Sponsor	8:30 a.m.	10:30 a.m.
Advisory Committee on Teacher Enhancement	**464 CC-108**	
American Geophysical Union		**490 CC-710**
Business & Economic Statistics Section	484 CC-107	502 CC-107 519 CC-105
Biometrics Section	**455 CC-112** 485 CC-113 486 CC-106	500 CC-707 509 CC-709 512 CC-711 520 CC-703 521 CC-705
Biopharmaceutical Section	487 CC-103 488 CC-102	**494 CC-207** 501 CC-706 522 CC-205
Statistics in Biopharmaceutical Research	**462 CC-703**	
Section on Statistical Consulting	**463 CC-705**	
Section on Statistical Computing	480 CC-709	**493 CC-204** 514 CC-206
Section on Statisticians in Defense and National Security	477 CC-702	
Section on Statistical Education	465 CC-111 479 CC-109	**499 CC-108** 507 CC-110
Eastern North American Region of the International Biometric Society	**457 CC-104**	**495 CC-708**
Section on Statistics and the Environment	**459 CC-206** 476 CC-210	505 CC-113
Section on Statistics in Epidemiology	472 CC-105 475 CC-101	**492 CC-702** 513 CC-701
Section on Government Statistics	468 CC-202	518 CC-112
Section on Statistical Graphics	478 CC-711	
Section on Health Policy Statistics	473 CC-110	**496 CC-106**
Institute of Mathematical Statistics	**461 CC-710** 483 CC-712	**497 CC-203**
Section on Statistics and Marketing	471 CC-704	
Section on Nonparametric Statistics	**458 CC-701**	504 CC-202 517 CC-201
Section on Quality and Productivity		515 CC-212
Section on Risk Analysis	470 CC-707	
Section on Bayesian Statistical Sciences	467 CC-212 482 CC-204	**489 CC-111** 503 CC-109
Social Statistics Section	**460 CC-205**	508 CC-104
Section on Physical and Engineering Sciences	469 CC-706 481 CC-708	516 CC-210
Section on Survey Research Methods	**456 CC-203** 466 CC-207 474 CC-201	506 CC-102 510 CC-103 511 CC-101
Statistical Society of Canada		**491 CC-712**
Western North American Region of the International Biometric Society		**498 CC-704**

Descriptions

Session Tag Descriptions

THEME ▲
Theme sessions are directly related to the 2008 JSM theme, "Speaking Out and Reaching Out." These sessions highlight presentations on the role being played by statistical sciences in the protection and development of people around the globe. Theme sessions are designed to expand the frontiers of statistical thought, emphasize new directions, and promote interdisciplinary collaboration.

APPLIED ●
Applied sessions center around presentations on real applications. Because they are grounded in applications across the many areas of science and engineering, they may involve interdisciplinary work and include presentations by nonstatisticians. Applied sessions vary in scope, ranging from presentations on state-of-the-art statistical methodology applied to real-world problems to those that are tutorial in nature.

THURSDAY, JULY 31

Committee/Business Meetings & Other Activities

7:00 p.m.–9:00 p.m. HY-Granite B-C
ASA Board of Directors Executive Committee Working Dinner (closed)
Chair(s): Peter A. Lachenbruch, Oregon State University

Late-Breaking Sessions

Monday, August 4, 2:00 p.m. – 3:50 p.m.
CC-605
Session 164 – Late-Breaking Session I: The Accuracy of Election Polls

Wednesday, August 6, 8:30 a.m. – 10:20 a.m.
CC-207
Session 333- Late-Breaking Session II: What Can Statistical Methods Tell Us About Steroid Use and Its Effects Among Major League Baseball Players?

FRIDAY, AUGUST 1

Committee/Business Meetings & Other Activities

7:30 a.m.–8:30 a.m. HY-Granite A
ASA Board of Directors Breakfast (closed)
Chair(s): Peter A. Lachenbruch, Oregon State University

8:30 a.m.–5:30 p.m. HY-Mineral Hall F-G
Workshop for Chairs of Programs in Statistics and Biostatistics (closed)
Chair(s): Douglas Simpson, University of Illinois at Urbana Champaign

8:30 a.m.–6:00 p.m. HY-Quartz A-B
ASA Board of Directors Meeting (closed)
Chair(s): Peter A. Lachenbruch, Oregon State University

12:00 p.m.–1:00 p.m. HY-Mineral Hall F-G
Workshop for Chairs of Programs in Statistics and Biostatistics Lunch (closed)
Chair(s): Douglas Simpson, University of Illinois at Urbana Champaign

12:30 p.m.–1:30 p.m. HY-Granite A
ASA Board of Directors Lunch (closed)
Chair(s): Peter A. Lachenbruch, Oregon State University

6:30 p.m.–7:30 p.m. HY-Monarch Suite
JSM Staff and ASA Board of Directors Reception
Chair(s): Ron Wasserstein, The American Statistical Association

7:00 p.m.–9:00 p.m. HY-Mineral Hall F-G
Workshop for Chairs of Programs in Statistics and Biostatistics Dinner (closed)
Chair(s): Douglas Simpson, University of Illinois at Urbana Champaign

SATURDAY, AUGUST 2

Committee/Business Meetings & Other Activities

7:00 a.m.–6:00 p.m. CC-A Lobby
JSM Main Registration

7:00 a.m.–6:00 p.m. CC-A Lobby
ASA Membership/Special Assistance/Press Desk

7:00 a.m.–7:00 p.m. CC-A Lobby
Cyber Center

7:30 a.m.–8:30 a.m. HY-Granite A
ASA Board of Directors Breakfast (closed)
Organizer(s): Peter A. Lachenbruch, Oregon State University

8:00 a.m.–4:00 p.m. HY-Agate C
Section on Statistical Education Small Group Strategic Planning (closed)
Chair(s): Linda J. Young, University of Florida

8:00 a.m.–5:00 p.m. CC-Exhibit Hall F
Exhibitor Move In and Lounge

8:30 a.m.–5:30 p.m. HY-Mineral Hall F-G
Workshop for Chairs of Programs in Statistics and Biostatistics (closed)
Chair(s): Douglas Simpson, University of Illinois at Urbana Champaign

8:30 a.m.–6:00 p.m. HY-Quartz A-B
ASA Board of Directors Meeting (closed)
Chair(s): Peter A. Lachenbruch, Oregon State University

9:00 a.m.–5:00 p.m. CC-Exhibit Hall A
Career Placement Service (job posting and resume submission only)

10:00 a.m.–6:00 p.m. CC-F2 Lobby Office
Speaker Management Room

11:30 a.m.–12:30 p.m. HY-Mineral Hall A
Association of General Clinical Research Center Statisticians Annual Meeting Lunch (closed)
Organizer(s): James J. Grady, The University of Texas Medical Branch

12:00 p.m.–1:00 p.m. HY-Granite A
ASA Board of Directors Lunch (closed)
Chair(s): Peter A. Lachenbruch, Oregon State University

12:00 p.m.–5:00 p.m. CC-A Lobby
ASA Marketplace

12:30 p.m.–5:30 p.m. HY-Mineral Hall B-C
Association of General Clinical Research Center Statisticians Annual Meeting (closed)
Organizer(s): James J. Grady, The University of Texas Medical Branch

3:00 p.m.–6:00 p.m. HY-Mineral Hall A
NISS/SAMSI Affiliates Meeting (closed)
Organizer(s): Alan Karr, National Institute of Statistical Sciences

6:30 p.m.–9:30 p.m. HY-Agate C
Section on Statistical Education Strategic Planning (closed)
Chair(s): Linda J. Young, University of Florida

Continuing Education (Fee Events)

CE_01C
Generalized Linear Mixed Models: Theory and Applications
8:30 a.m.–5:00 p.m. CC-201
ASA
Instructor(s): Oliver Schabenberger, SAS Institute Inc.; Walter Stroup, University of Nebraska-Lincoln

CE_02C
Genetic and Microarray Data Analysis
8:30 a.m.–5:00 p.m. CC-203
ASA
Instructor(s): Russ Wolfinger, SAS Institute Inc.; Carl D. Langefeld, Wake Forest University Health Sciences

CE_03C
Optimal Experimental Designs
8:30 a.m.–5:00 p.m. CC-204
ASA, Section on Physical and Engineering Sciences
Instructor(s): Alexander N. Donev, University of Manchester; Randy Tobias, SAS Institute Inc.

CE_04C
Regression Modeling Strategies
8:30 a.m.–5:00 p.m. CC-205
ASA
Instructor(s): Frank E. Harrell, Jr., Vanderbilt University

CE_05C
Hot Topics in Clinical Trials
8:30 a.m.–5:00 p.m. CC-210-212
ASA, Section on Teaching Statistics in the Health Sciences, ASA, Boston Chapter
Instructor(s): Scott R. Evans, Harvard University; Lee-Jen Wei, Harvard University; Lu Tian, Northwestern University; Lingling Li, Harvard Medical School

CE_06C
Successful Data Mining in Practice
8:30 a.m.–5:00 p.m. CC-207
ASA
Instructor(s): Richard D. De Veaux, Williams College

SUNDAY, AUGUST 3

Tours

TR01 - Rocky Mountain National Park/ Grand Lakes Tour
8:00 a.m.–5:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

TR02 - Celestial Seasonings and Town of Boulder Tour
9:00 a.m.–3:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

TR03 - Mile High Historical Tour
2:00 p.m.–6:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

Committee/Business Meetings & Other Activities

7:00 a.m.–8:30 a.m. HY-Mineral Hall A
Association of General Clinical Research Center Statisticians Annual Meeting Breakfast (closed)
Organizer(s): James J. Grady, The University of Texas Medical Branch

7:00 a.m.–8:30 p.m. CC-A Lobby
JSM Main Registration

7:00 a.m.–8:30 p.m. CC-A Lobby
ASA Membership/Special Assistance/Press Desk

7:00 a.m.–10:30 p.m. CC-A Lobby
Cyber Center

7:30 a.m.–9:00 a.m. HY-Agate A
Committee on Publications (closed)
Chair(s): Edward J. Wegman, George Mason University

7:30 a.m.–9:30 a.m. CC-208
Committee on Women in Statistics Meeting (closed)
Chair(s): Mari Palta, University of Wisconsin-Madison

8:00 a.m.–11:00 a.m. CC-Exhibit Hall F
Exhibitor Move In

8:00 a.m.–12:00 p.m. HY-Mineral Hall B-C
Association of General Clinical Research Center Statisticians Annual Meeting (closed)
Organizer(s): James J. Grady, The University of Texas Medical Branch

8:00 a.m.–12:00 p.m. CC-206
Advisory Committee on Teacher Enhancement Business Meeting
Chair(s): Deborah Rumsey, The Ohio State University

9:00 a.m.–5:00 p.m. CC-A Lobby
ASA Marketplace

9:00 a.m.–5:00 p.m. CC-Main Lobby
Denver Visitors Information Center

9:00 a.m.–5:00 p.m. HY-Quartz A-B
Writing Workshop for Junior Researchers-Tutorial (closed)
Chair(s): Keith Crank, The American Statistical Association

9:00 a.m.–7:00 p.m. CC-F2 Lobby Office
Speaker Management Room

9:30 a.m.–11:30 a.m. CC-208
Caucus for Women in Statistics Executive Committee Meeting (closed)
Organizer(s): Marcia Ciol, University of Washington

10:00 a.m.–1:00 p.m. HY-Agate B
Council of Sections Governing Board Meeting
Chair(s): Linda Gage, California Department of Finance

11:30 a.m.–2:30 p.m. HY-Agate C
Committee on Committees (closed)
Chair(s): Susan Devlin, The Artemis Group

11:30 a.m.–2:00 p.m. HY-Mineral Hall D-E
Statistica Sinica Editorial Board Meeting (closed)
Organizer(s): Jing-Shiang Hwang, Academia Sinica

12:00 p.m.–1:30 p.m. HY-Agate A
***Journal of Statistics Education* Editorial Board Meeting (closed)**
Chair(s): William Notz, The Ohio State University

12:00 p.m.–1:30 p.m. CC-208
Amgen, Inc. (closed)
Organizer(s): Chander Varma, Amgen, Inc.

12:00 p.m.–1:30 p.m. HY-Mineral Hall A
Association of General Clinical Research Center Statisticians Annual Meeting Lunch (closed)
Organizer(s): James J. Grady, The University of Texas Medical Branch

1:00 p.m.–6:00 p.m. CC-Exhibit Hall F
EXPO 2008

1:00 p.m.–6:00 p.m. CC-Exhibit Hall F
American Statistical Association Booth #101

1:00 p.m.–6:00 p.m. CC-Exhibit Hall A
Career Placement Service (full placement service open)

1:30 p.m.–4:00 p.m. HY-Granite A-C
Council of Sections Annual Business Meeting
Chair(s): Linda Gage, California Department of Finance

4:00 p.m.–5:00 p.m. HY-Mineral Hall A
CDC/ATSDR Statistical Advisory Group Business Meeting (closed)
Organizer(s): Henry Rolka, Centers for Disease Control and Prevention

4:00 p.m.–5:50 p.m. CC-607
Introductory Overview Lecture: Interdisciplinary Communications: Functional Data Analysis and Differential Equation Models
Organizer(s): Hulin Wu, University of Rochester
Chair(s): Giles Hooker, Cornell University

4:00 p.m.–6:00 p.m. HY-Mineral Hall B-C
Career Development Seminar: Educating Our Customers—What Every Statistician Should Know About Teaching Statistics to Nonstatisticians
Chair(s): Janet Myhre, Mathematical Analysis Research Corp.
Instructor(s): Richard D. DeVeaux, Williams College

4:00 p.m.–6:00 p.m. HY-Agate B
2008–2009 Committee Chairs Meeting
Chair(s): Susan Devlin, The Artemis Group

4:30 p.m.–8:00 p.m. CC-206
ENAR Executive Committee Meeting (closed)
Organizer(s): Kathy Hoskins, ENAR

5:00 p.m.–8:00 p.m. HY-Mineral Hall F
International Chinese Statistical Association Board Meeting (closed)
Organizer(s): Ming-Hui Chen, University of Connecticut

5:30 p.m.–7:00 p.m. HY-Agate A
Section on Quality and Productivity Executive Committee Meeting (closed)
Chair(s): Connie Borror, Arizona State University West

5:30 p.m.–7:00 p.m. CC-208
Committee on Scientific Freedom and Human Rights Meeting
Chair(s): Susan Hinkins, National Opinion Research Center

6:00 p.m.–7:30 p.m. HY-Capitol Ballroom 1-7
JSM First-Timer Orientation and Reception
Chair(s): Marcia Ciol, University of Washington
Speaker(s): Mary Gray, American University

6:30 p.m.–8:30 p.m. Off Property
Section on Statistical Consulting Executive Committee Business Meeting (closed)
Chair(s): Brenda Gaydos, Eli Lilly and Company

6:30 p.m.–8:30 p.m. HY-Mineral Hall A
Purdue University Friends and Alumni Reception
Organizer(s): Sandy Howarth, Purdue University

6:30 p.m.–9:00 p.m. HY-Agate C
Biometrics Section Executive Committee Meeting (closed)
Chair(s): Jeremy M.G. Taylor, The University of Michigan

7:00 p.m.–8:00 p.m. HY-Quartz A-B
Advisory Committee on Continuing Education Presenter Social (closed)
Chair(s): Eileen King, The Procter & Gamble Co

7:00 p.m.–8:30 p.m. HY-Granite A-C
Google Reception (by invitation only)
Organizer(s): Kate Macevicz, Google, Inc.

7:00 p.m.–9:00 p.m. CC-102
Isolated Statisticians Meeting
Organizer(s): Shonda Kuiper, Grinnell College

8:00 p.m.–10:30 p.m. CC-Four Seasons Ballroom
JSM Opening Mixer

Continuing Education (Fee Events)

CE_01C
Generalized Linear Mixed Models: Theory and Applications
8:30 a.m.–5:00 p.m. CC-201
ASA
Instructor(s): Oliver Schabenberger, SAS Institute Inc.; Walter Stroup, University of Nebraska-Lincoln

CE_07C
Design and Analysis of Epidemiologic Studies of Gene-Environment Interactions
8:00 a.m.–12:00 p.m. CC-207
ASA, Section on Statistics in Epidemiology
Instructor(s): Raymond Carroll, Texas A&M University; Nilanjan Chatterjee, National Cancer Institute

CE_08C
Modern Practical Bayesian Clinical Trial Design
8:30 a.m.–5:00 p.m. CC-203
ASA, Section on Bayesian Statistical Science
Instructor(s): Peter F. Thall, The University of Texas M.D. Anderson Cancer Center; J. Kyle Wathen, The University of Texas M.D. Anderson Cancer Center

CE_09C
Statistical Challenges in Proteomics
8:30 a.m.–5:00 p.m. CC-204
ASA, Biometrics Section
Instructor(s): Scott C. Schmidler, Duke University

CE_10C
Systematically Improving Your Professional Practice
8:30 a.m.–5:00 p.m. CC-205
ASA, Committee on Career Development
Instructor(s): Doug Zahn, Zahn and Associates

CE_11C
Principles of Statistical Design
8:30 a.m.–5:00 p.m. CC-210-212
ASA
Instructor(s): George Casella, University of Florida

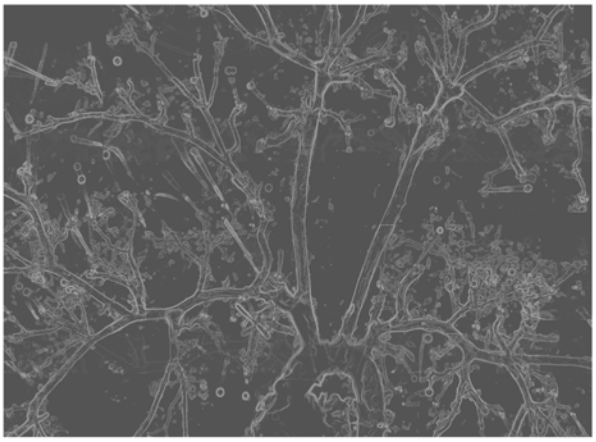
CE_12C
Sampling in Networks
1:00 p.m.–5:00 p.m. CC-207
ASA, Section on Survey Research Methods
Instructor(s): Steven K. Thompson, Simon Fraser University

Invited Sessions 2:00 p.m.–3:50 p.m.

1 **CC-709**
Designing Courses on Statistical Computing—Invited
Section on Statistical Computing, Section on Statistical Education, WNAR
Organizer(s): David Banks, Duke University
Chair(s): Thomas Lumley, University of Washington

2:05 p.m. **Computing in the Nonintroductory Statistics Classes—✱**Deborah Nolan, University of California, Berkeley
2:30 p.m. **Computational Graphics—✱**Leland Wilkinson, Northwestern University
2:55 p.m. **Computing in the Graduate Curriculum—✱**Duncan Temple Lang, University of California, Davis
3:20 p.m. Disc: Roger D. Peng, Johns Hopkins Bloomberg School of Public Health
3:40 p.m. **Floor Discussion**

Greg, Avastin® Patient



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Non-Clinical Senior Biostatistician
This position will review all project protocols, author protocol statistical analysis sections and generate study randomization. The incumbent will also develop study analysis plans as a team member and lead this effort for selected studies. A Ph.D. in Statistics/ Biostatistics with a minimum of two years of clinical trials experience is required.

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Clinical Senior Statistical Scientist
This position will provide statistics leadership for clinical development projects and will be directly responsible for the statistical integrity, adequacy and accuracy of the clinical studies in the project. A Ph.D. in Statistics/Biostatistics with a minimum of six years of clinical trials experience is required.

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2 CC-601

● Recent Advances in Computer Experiments: New Methods with Diverse Applications—Invited

Section on Physical and Engineering Sciences, Section on Quality and Productivity

Organizer(s): Zhiguang (Peter) Qian, University of Wisconsin-Madison

Chair(s): Zhiguang (Peter) Qian, University of Wisconsin-Madison

2:05 p.m. **Gaussian Process Models for Computer Experiments with Qualitative and Quantitative Factors—Q**C.F. Jeff Wu, Georgia Institute of Technology; Zhiguang (Peter) Qian, University of Wisconsin-Madison; Huaiqing Wu, Iowa State University

2:30 p.m. **A Bayesian Approach for the Identification of Pollution Source Directions—Q**C. Shane Reese, Brigham Young University

2:55 p.m. **Calibration and Ensemble Prediction for Multiple Computer Models and Data Sources—Q**Brian Williams, Los Alamos National Laboratory; Thomas J. Santner, The Ohio State University; Max Morris, Iowa State University

3:20 p.m. **Design and Analysis of Computer Experiments in High Dimensions—Q**Derek Bingham, Simon Fraser University

3:45 p.m. **Floor Discussion**

3 CC-113

● Statistical Issues for Biodiversity Assessments—Invited

Section on Statistics and the Environment

Organizer(s): Ronald E. McRoberts, U.S. Forest Service

Chair(s): Estelle Russek-Cohen, U.S. Food and Drug Administration

2:05 p.m. **Predicting Seasonal Changes in Species Composition and Richness While Accounting for Imperfect Detectability—Q**Robert M. Dorazio, U.S. Geological Survey/University of Florida; Marc Kery, Swiss Ornithological Institute; J. Andrew Royle, U.S. Geological Survey

2:30 p.m. **Modeling Mixtures of Three States of a Count Process: A Zero-State and Two Poisson Count States—Q**Mary C. Christman, University of Florida

2:55 p.m. **A Hierarchical Spatial Model for Predicting Forest Biodiversity Across Large Domains—Q**Andrew O. Finley, Michigan State University; Sudipto Banerjee, The University of Minnesota; Ronald E. McRoberts, U.S. Forest Service

3:20 p.m. **Predicting and Mapping Forest Species Compostion and Structural Attributes—✱**Ronald E. McRoberts, U.S. Forest Service

3:45 p.m. **Floor Discussion**

4 CC-102

▲ Statistics in Defense and National Security: Past, Present, and Future—Invited

Section on Statisticians in Defense and National Security, Social Statistics Section, Chance

Organizer(s): Wendy Martinez, Office of Naval Research

Chair(s): Wendy Martinez, Office of Naval Research

2:05 p.m. **Statistics and National Defense Until 1960—✱**Fritz Scheuren, The University of Chicago

2:35 p.m. **Statistics in Defense and National Security: You Need More Than Statistics; You Need the Right Statistics—✱**Nancy L. Spruill, Office of the Secretary of Defense; Ernest A. Seglie, Office of the Secretary of Defense; Alyson G. Wilson, Los Alamos National Laboratory

3:05 p.m. **Statistics in Defense and National Security: Past, Present, and an Eye to the Future—✱**James R. Thompson, Rice University

3:35 p.m. **Floor Discussion**

5 CC-603

● Recent Bayesian Modeling and Computation Advances Published in *JCGS*—Invited

JCGS-Journal of Computational and Graphical Statistics, Section on Bayesian Statistical Science

Organizer(s): David A. van Dyk, University of California, Irvine

Chair(s): David A. van Dyk, University of California, Irvine

2:05 p.m. **Bayesian Model-Based Clustering Procedures—✱**John W. Lau, University of the Witwatersrand; Peter J. Green, University of Bristol

2:35 p.m. **Calibrating Environmental Engineering Models—✱**David Ruppert, Cornell University

3:05 p.m. **Improved Estimation of Normalizing Constants from MCMC Output—✱**Perry de Valpine, University of California, Berkeley

3:35 p.m. **Floor Discussion**

6 CC-705

● Advances in Functional Data Analysis—Invited

Section on Statistical Computing, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, IMS

Organizer(s): Giles Hooker, Cornell University

Chair(s): James Booth, Cornell University

2:05 p.m. **Functional Regression in a Marketing Context—✱**Gareth M. James, University of Southern California

2:30 p.m. **Forecasting with Functional Data in E-commerce—✱**Wolfgang Jank, University of Maryland, College Park; Natasha Foutz, University of Virginia; Gareth M. James, University of Southern California

2:55 p.m. **Modeling Sparse Generalized Longitudinal Observations with Latent Gaussian Processes—✱**Fang Yao, University of Toronto; Hans G. Müller, University of California, Davis; Peter G. Hall, The University of Melbourne

3:20 p.m. **Structural Tests in Regression on Functional Variables—✱**Laurent Delsol, Institut de Mathèmatiques de Toulouse

3:45 p.m. **Floor Discussion**

7 CC-712

● Bridging Clinical Trials—Invited

WNAR, Biopharmaceutical Section, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Yi Tsong, U.S. Food and Drug Administration

Chair(s): Yi Tsong, U.S. Food and Drug Administration

2:05 p.m. **A Bayesian Approach for Local Bridging Evaluation and Sample Size Determination in a Multiregional Trial—**Yi-Hau Chen, Institute of Statistical Science, Academia Sinica; Ya-Chi Wu, Center for Drug Evaluation, Taiwan; ✱Mey Wang, Center for Drug Evaluation, Taiwan

2:30 p.m. **Statistical Issues in Multiregional Clinical Trials—✱**Yoko Tanaka, Eli Lilly and Company

2:55 p.m. **Some Considerations in Design and Analysis of Multiregional Clinical Trials—✱**Yoichi Ii, Pfizer Japan, Inc

3:20 p.m. Disc: Janet Wittes, Statistics Collaborative, Inc.

3:40 p.m. **Floor Discussion**

8 CC-101

● ▲ Statistics in the Colorado News—Invited

ASA, Colorado-Wyoming Chapter, WNAR

Organizer(s): Matthew Pocernich, National Center for Atmospheric Research

Chair(s): Matthew Pocernich, National Center for Atmospheric Research

2:05 p.m. **A Modeling Framework for Evaluation and Comparison of Mp-/Id-Nat Trigger Strategies for West Nile Virus Screening—✱**Brad Biggerstaff, Centers for Disease Control and Prevention; Lyle R. Petersen, Centers for Disease Control and Prevention

2:30 p.m. **Nanostatistics: Numeracy for Trace-Level Environmental Contaminants—✱**Dennis Helsel, Practical Stats

2:55 p.m. **Graduation Rates and Dropout Rates in Denver Public Schools—✱**Alan Davis, University of Colorado Denver

3:20 p.m. Disc: John Pape, Colorado Department of Public Health and Environment

3:40 p.m. **Floor Discussion**

9 CC-703

▲ Multiplicities in Statistical Analysis—Invited

IMS, Biopharmaceutical Section, Section on Bayesian Statistical Science

Organizer(s): Peter Mueller, The University of Texas M.D. Anderson Cancer Center

Chair(s): Peter Mueller, The University of Texas M.D. Anderson Cancer Center

2:05 p.m. **Bayesian Adjustment for Multiplicity—✱**James Berger, Duke University/SAMSI; James G. Scott, Duke University

2:35 p.m. **Bayesian Model Robustness: Novel Approaches That Avoid Multiplicities—✱**Kenneth Rice, University of Washington

3:05 p.m. **Bayesian and Frequentist Multiple Testing in Cancer Genome Sequencing—✱**Giovanni Parmigiani, Johns Hopkins University; Simina Boca, Johns Hopkins Bloomberg School of Public Health

3:35 p.m. **Floor Discussion**

Invited Panels 2:00 p.m.–3:50 p.m.

10 CC-106

▲ Training TAs To Teach in Graduate School and Beyond—Invited

Section on Statistical Education, Section on Teaching Statistics in the Health Sciences

Organizer(s): Jackie Miller, The Ohio State University

Chair(s): Jackie Miller, The Ohio State University

Panelists: ✱Jessica Utts, University of California, Irvine

✱Candace Berrett, The Ohio State University

✱Roger Woodard, North Carolina State University

✱Deborah Rumsey, The Ohio State University

✱W. Robert Stephenson, Iowa State University

3:45 p.m. **Floor Discussion**

11 CC-103

Survey Respondent Incentives: Research and Practice—Invited

Section on Government Statistics, Social Statistics Section, Section on Survey Research Methods

Organizer(s): Brian Harris-Kojetin, U.S. Office of Management and Budget

Chair(s): Ed Spar, Council of Professional Associations on Federal Statistics

Panelists: ✱Robert Groves, The University of Michigan

✱Brian Harris-Kojetin, U.S. Office of Management and Budget

✱Richard Kulka, Abt Associates, Inc.

✱Clyde Tucker, Bureau of Labor Statistics

✱Geraldine Mooney, Mathematica Policy Research, Inc.

3:45 p.m. **Floor Discussion**

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

12 CC-702

● ▲ Generalized Linear Mixed Models with Applications in Biometry—Topic-Contributed

Section on Statistical Consulting, WNAR, Biopharmaceutical Section

Organizer(s): Jun Zhu, University of Wisconsin-Madison

Chair(s): Jun Zhu, University of Wisconsin-Madison

2:05 p.m. **Modeling Mosquito Abundance in Thailand Using GLMMs—✱**Linda J. Young, University of Florida; Robert H. Zimmerman, University of Florida

2:25 p.m. **Analysis of Hatch Data in Poultry Science: Moving from the Arcsine Square Root Transformation to Generalized Linear Mixed Modeling with SAS PROC GLIMMIX—✱**Kevin S. McCarter, Louisiana State University; Yan Qi, Louisiana State University

2:45 p.m. **Modeling the Regeneration of Grass in Golfing Divots Using GLMMS—✱**Bruce Craig, Purdue University

3:05 p.m. **Spatial-Temporal Generalized Linear Mixed Models—✱**Yanbing Zheng, University of Kentucky; Jun Zhu, University of Wisconsin-Madison; Brian Aukema, Canadian Forest Service/University of Northern British Columbia

3:25 p.m. **Generalized Linear Mixed Models and Resource Selection Analyses—✱**Kenneth W. Horton, Air Force Academy; J. Richard Alldredge, Washington State University

3:45 p.m. **Floor Discussion**

13 CC-607

● Model-Based Inference and Gene Expression Applications—Topic-Contributed

Biometrics Section, Biopharmaceutical Section, WNAR

Organizer(s): David Bickel, Ottawa Institute of Systems Biology

Chair(s): David Bickel, Ottawa Institute of Systems Biology

2:05 p.m. **Modeling the Distribution of P-Values in High-Dimensional Testing Applications—✱**Gary L. Gadbury, Kansas State University

2:25 p.m. **Criterion-Based Model Selection and Model Selection Philosophy—✱**Kenneth P. Burnham, U.S. Geological Survey/CSU

2:45 p.m. **Toward a Characterization of Gene Expression Variation in Tumors—✱**Joseph Lucas, Duke Institute for Genome Science and Policy

3:05 p.m. **MCMC Inference for a Model with Sampling Bias: An Illustration Using SAGE Data—✱**Russell L. Zaretzki, The University of Tennessee, Knoxville; Mike Gilchrist, The University of Tennessee, Knoxville; William M. Briggs, Methodist Hospital; Artin Armagan, The University of Tennessee, Knoxville

3:25 p.m. Disc: Robert H. Podolsky, Medical College of Georgia

3:45 p.m. **Floor Discussion**

14 CC-708

Study Design Issues in Medical Device Clinical Trials—Topic-Contributed

Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): Lilly Yue, U.S. Food and Drug Administration; John C. Evans, Boston Scientific Corporation

Chair(s): Yao Huang, U.S. Food and Drug Administration

2:05 p.m. **Using Propensity Scoring Methods in Medical Device Studies That Include Both FDA Approval and CMS Reimbursement Endpoints—✱**Dennis King, STATKING Consulting, Inc.

2:25 p.m. **Simulated Sample Size Required for a Geographical Region Relative to a Global Study in a Medical Device Trial—✱**Jian Huang, Boston Scientific Corporation; Haiying Lin, Boston Scientific Corporation; Yukiko Imai, Boston Scientific Corporation

2:45 p.m. **Statistical Issues in Adaptive Design Trial—✱**Yonghong Gao, U.S. Food and Drug Administration

3:05 p.m. **Adaptive Group-Sequential Design and Analysis for Correlated Binary Data on Repeated Venous Accessions—✱**John C. Evans, Boston Scientific Corporation; Brian P. Johnson, Boston Scientific Corporation; So Jung Imm, Boston Scientific Corporation

3:25 p.m. **Sample Size Simulation for a Post-Market Surveillance Study—✱**Hongyan Qiao, Medtronic, Inc.

3:45 p.m. **Floor Discussion**

15 CC-104

Time Series I: Seasonal Adjustment—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Tucker S. McElroy, U.S. Census Bureau

Chair(s): Duncan J. Elliott, The Office for National Statistics, UK

2:05 p.m. **Seasonal Adjustment in a Mass Production Environment—✱**Gary C. Brown, The Office for National Statistics, UK; Duncan J. Elliott, The Office for National Statistics, UK

2:25 p.m. **Modeling of BLS and Census Bureau Seasonal Time Series with Frequency-Specific Generalized Airline Models—✱**David Findley, U.S. Census Bureau; Thomas Evans, Bureau of Labor Statistics; Jean Palate, National Bank of Belgium; Richard Tiller, Bureau of Labor Statistics

2:45 p.m. **Using Besov Spaces and Empirical Mode Decomposition for Seasonal Extraction in Nonstationary Time Series—**Christopher Blakely, Statistical Research Division; ✱Christopher Blakely, Statistical Research Division

3:05 p.m. **European Guidelines on Seasonal Adjustment—✱**Gian Luigi Mazzi, European Commission; Rosa Ruggeri Cannata, European Commission; Cristina Calizzani, European Commission

3:25 p.m. **The Application of X-13A-S on Monetary and Financial Data—✱**Fida Hussain, Bank of England

3:45 p.m. **Floor Discussion**

16 CC-110

Student Paper Competition: Bayesian Methods for Bioinformatics and Binary Data—Topic-Contributed

Section on Bayesian Statistical Science, Section on Teaching Statistics in the Health Sciences, WNAR

Organizer(s): David A. van Dyk, University of California, Irvine

Chair(s): Michael Daniels, University of Florida

2:05 p.m. **Bayesian Model Search for Genetic Association Studies—✱**Melanie A. Wilson, Duke University; Edwin S. Iversen, Duke University; Merlise Clyde, Duke University; Scott C. Schmidler, Duke University; Joellen M. Schildkraut, Duke University

2:25 p.m. **Bayesian QTL Mapping for Multiple Traits—✱**Samprit Banerjee, The University of Alabama at Birmingham; Nengjun Yi, The University of Alabama at Birmingham

2:45 p.m. **Bayesian Analysis of Longitudinal Binary Data Using Multivariate Bridge and Other Random Effects Models—✱**Souparno Ghosh, Texas A&M University; Bani K. Mallick, Texas A&M University; Stuart R. Lipsitz, Harvard Medical School; Debajyoti Sinha, Florida State University

3:05 p.m. **A Robust Bayesian Approach in Binary Data for Clinical Trials—✱**Jairo A. Fuquene, University of Puerto Rico; Luis R. Pericchi, University of Puerto Rico

3:25 p.m. **Reconstructing Tumor-Wise Protein Expression in Tissue Microarray Studies Using a Bayesian Cell Mixture Model—✱**Ronglai Shen, Memorial Sloan-Kettering Cancer Center; Jeremy M.G. Taylor, The University of Michigan; Debashis Ghosh, The Pennsylvania State University

3:45 p.m. **Floor Discussion**

17 CC-707

▲ New Developments in Rank-Based Nonparametric Methods—Topic-Contributed

Section on Nonparametric Statistics

Organizer(s): Lan Wang, The University of Minnesota

Chair(s): Lan Wang, The University of Minnesota

2:05 p.m. **Confidence Intervals for a Finite Population Median Based on the Sign Test—✱**Suzanne Dubnicka, Kansas State University

2:25 p.m. **Asymptotic Properties of Rank Likelihoods for Copula Models—✱**Xiaoyue Niu, University of Washington; Peter Hoff, University of Washington

2:45 p.m. **A Robust Rank-Based Procedure for Incomplete Longitudinal Data—✱**Robin Mogg, Merck Research Laboratories; Devan V. Mehrotra, Merck Research Laboratories; Yang Liu, Florida State University

3:05 p.m. **Comparisons of Rank-Based Estimators for GEE Models—✱**Joseph McKean, Western Michigan University; Ash Abebe, Auburn University; John Kloke, Pomona College

3:25 p.m. **Rank-Based Estimation for GARCH Models—✱**Beth Andrews, Northwestern University

3:45 p.m. **Floor Discussion**

18 CC-706

Risk Analysis for Industry and the Environment—Topic-Contributed

Section on Risk Analysis, Section on Quality and Productivity

Organizer(s): Richard L. Smith, The University of North Carolina at Chapel Hill

Chair(s): Elizabeth C. Shamseldin, The University of North Carolina at Chapel Hill

2:05 p.m. **Quantifying Local Creation and Regional Transport Using a Hierarchical Space-Time Model of Ozone as a Function of Observed NOx, a Latent Voc Process, Emissions, and Meteorology—✱**Amy J. Nail, North Carolina State University; John F. Monahan, North Carolina State University; Jacqueline Hughes-Oliver, North Carolina State University

2:25 p.m. **An Analysis of the Potential Impact of Various Ozone Regulatory Standards—✱**Rosalba Ignaccolo, Universita' degli Studi di Torino/SAMSI; Yongku Kim, Statistical and Applied Mathematical Sciences Institute; Bahjat Qaqish, The University of North Carolina at Chapel Hill; Michela Cameletti, Universitá degli Studi di Bergamo/SAMSI; Richard L. Smith, The University of North Carolina at Chapel Hill

2:45 p.m. **Multivariate Generalized Linear ARMA Processes: An Application to Hurricane Activity—✱**Evangelos Evangelou, The University of North Carolina at Chapel Hill; Richard L. Smith, The University of North Carolina at Chapel Hill

3:05 p.m. **Probabilistic Risk Analysis for ICT Industry—✱**Jose A. Rubio, Universidad Rey Juan Carlos; David Rios Insua, Universidad Rey Juan Carlos

3:25 p.m. **Seismic Risk Analysis—✱**Mircea Grigoriu, Cornell University

3:45 p.m. **Floor Discussion**

19 CC-602

● Methodological Challenges Encountered at the U.S. Centers for Disease Control and Prevention in the Division of HIV/AIDS Prevention—Topic-Contributed

Section on Statistics in Epidemiology, Section on Government Statistics, Social Statistics Section, WNAR, Biometrics Section

Organizer(s): Felicia Hardnett, Centers for Disease Control and Prevention

Chair(s): Craig Borkowf, Centers for Disease Control and Prevention

2:05 p.m. **On Validating a Stepwise Variable Selection Algorithm with Another Stepwise Variable Selection Algorithm—✱**Ryan E. Wiegand, Centers for Disease Control and Prevention

2:25 p.m. **Identifying and Interviewing Persons with a Recent HIV Diagnosis Not Yet Receiving Medical Care—✱**Christopher H. Johnson, Centers for Disease Control and Prevention

2:45 p.m. **An Improved Procedure for Accounting for Reporting Delay—✱**Ruiguang Song, Centers for Disease Control and Prevention

3:05 p.m. **Use of Population-Based Data Bases To Estimate HIV/AIDS-Relative Survival—✱**Xinjian Zhang, Centers for Disease Control and Prevention; Ruiguang Song, Centers for Disease Control and Prevention; Kathleen McDavid Harrison, Centers for Disease Control and Prevention; Gengsheng (Jeff) Qin, Georgia State University

3:25 p.m. Disc: Carol Y. Lin, Centers for Disease Control and Prevention

3:45 p.m. **Floor Discussion**

20 CC-105

● Data-Driven Methods on Survey Data—Topic-Contributed

Section on Survey Research Methods, Section on Nonparametric Statistics, Section on Government Statistics, SSC, Social Statistics Section

Organizer(s): Daniell Toth, Bureau of Labor Statistics

Chair(s): Sylvia Dohrmann, Westat, Inc.

2:05 p.m. **Building Regression Trees on Survey Data—✱**Daniell Toth, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

2:25 p.m. **Tree-Based Methods To Model Dependent Data—✱**Guillermo Mendez, Arizona State University

2:45 p.m. **Nonparametric Density Estimation from Censored Data—✱**Meghan S. O'Malley, Bureau of Labor Statistics

3:05 p.m. **Can†Survey Bootstrap Replicates Be Used for Cross-Validation?—**Geoff Rowe, Statistics Canada; ✱David Binder, Statistics Canada

3:25 p.m. Disc: Stephen Miller, Bureau of Labor Statistics

3:45 p.m. **Floor Discussion**

Topic-Contributed Panel 2:00 p.m.–3:50 p.m.

21 CC-108

▲ An Overview of K–16 Poster and Project Competitions—Topic-Contributed

Section on Statistical Education

Organizer(s): Neal Rogness, Grand Valley State University

Chair(s): John Gabrosek, Grand Valley State University

Panelists: ✱Carl Lee, Central Michigan University

✱Jerry Moreno, John Carroll University

✱Megan Mocko, University of Florida

✱Neal Rogness, Grand Valley State University

3:45 p.m. **Floor Discussion**

Contributed Sessions 2:00 p.m.–3:50 p.m.

22 CC-704

● Statistical Methods for Networked and Streaming Data—Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity, IMS

Chair(s): Lewis Shoemaker, Millersville University of Pennsylvania

2:05 p.m. **Statistical Network Comparison—✱**Wei Liu, U.S. Food and Drug Administration; Wolfgang Polonik, University of California, Davis

2:20 p.m. **Time Series Synchronization and Detection Using the Hamming Distance—**Carolyn B. Morgan, Hampton University; ✱Morris H. Morgan, Hampton University; Clemontina Alexander, Hampton University

2:35 p.m. **Anomaly Detection in Internet Traffic Data—✱**Nathaniel Beagley, Pacific Northwest National Laboratoty; Paul Whitney, Pacific Northwest National Laboratory; Christian Posse, Pacific Northwest National Laboratory; Amanda White, Pacific Northwest National Laboratory

2:50 p.m. **Analyzing Diffusion Tensor Imaging Data—✱**Meagan Clement, Rho, Inc.; David Couper, The University of North Carolina at Chapel Hill; Steve Marron, The University of North Carolina at Chapel Hill; Keith E. Muller, University of Florida; Hongtu Zhu, The University of North Carolina at Chapel Hill

3:05 p.m. **Recurrent Event Data Under Competing Risks—✱**Ananda Sen, The University of Michigan

3:20 p.m. **Using Labeled Data To Evaluate Change Detectors in a Multivariate Streaming Environment—**Werner Stuetzle, University of Washington; Donald B. Percival, University of Washington; ✱Caren Marzban, University of Washington; Albert Kim, University of Washington

3:35 p.m. **Floor Discussion**

23 CC-109

● Linear Modeling Methods for Education Statistics and Other Social Statistics—Contributed

Social Statistics Section, Section on Survey Research Methods

Chair(s): Jana Asher

2:05 p.m. **Effect of Spanish Two-Way Immersion Program on Kindergarten Students' Attitudes: A Study of Treatment and Control Schools—✱**Claudia B. Navarro Villarroel, Iowa State University; Mack Shelley, Iowa State University; Marcia Rosenbusch, Iowa State University; Holly Kaptain, Iowa State University

2:20 p.m. **Matching Four Groups of Postsecondary Education Institutions Using Propensity Scores—✱**Amang S. Sukasih, Mathematica Policy Research, Inc.; Kirsten Barrett, Mathematica Policy Research, Inc.; Wendy Mansfield, Mathematica Policy Research, Inc.

2:35 p.m. **Methods for Analyzing Agreement on Ordinal Ratings Between Self- and Peer-Evaluations in a Medical School Student Survey—✱**Oliver Cass, Hennepin County Medical Center; Ye-Ying Cen, Hennepin County Medical Center

2:50 p.m. **Modeling of Probability of Infant Survival (Survival Rates)—✱**Beau Jones, University of Central Arkansas; Evgenia Rubinshtein, University of Central Arkansas

3:05 p.m. **Deal with Zero Response When It Is Important Measure but Noisy—✱**Gideon D. Bahn, Loyola University Chicago; Raymond Massenburg, University of Illinois at Chicago

3:20 p.m. **An Examination of the Relationships Between University Student Retention and High-School Coursework Among At-Risk Students Using Regression Analysis—✱**Chong Ho Yu, Arizona State University; Angel Jannasch-Pennell, Arizona State University; Samuel Digangi, Arizona State University; Charles Kaprolet, Arizona State University

3:35 p.m. **Floor Discussion**

24 CC-107

Psychometrics and Latent Class Analysis—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): David Williamson, Centers for Disease Control and Prevention

2:05 p.m. **Measuring Nonresponse Bias from Response Propensities Obtained from Respondents' Answers on Their Survey Participation Behavior—✱**William Kalsbeek, Unversity of North Carolina; Robert Agans, The University of North Carolina at Chapel Hill

2:20 p.m. **Reducing Error in Psychological Research: Averaging Data To Determine Factor Structure of the QMPR—✱**Shea Gibbons, Brigham Young University; Robert Bubb, Brigham Young University; Bruce L. Brown, Brigham Young University

2:35 p.m. **Comparison of Students' Scores Between Public and Private Schools: Analysis of PISA Data—✱**Victoria Landsman, The Hebrew University of Jerusalem; Danny Pfeffermann, Hebrew University & University of Southampon

2:50 p.m. **Issues Matter: Social Attributes, Predispositions, and Issues Affect Voting Choice—✱**Robert B. Smith, Cytel Inc.

3:05 p.m. **A Brief History of Survey Classification Error Models—✱**Marcus Berzofsky, RTI International; Paul P. Biemer, RTI International/UNC-CH; William Kalsbeek, Unversity of North Carolina

3:20 p.m. **Floor Discussion**

25 **CC-604**

● Spatial Variation and Risk Factors for Disease—Contributed

Section on Statistics in Epidemiology, Section on Statistics and the Environment, Section on Risk Analysis, Biometrics Section

Chair(s): Sowmya R. Rao, MGH Biostatistics Center/The Institute for Health Policy

2:05 p.m. **Risky Behavior: A Multivariate Statistical Analysis of the United States Based on Health Risk Factors—✱**Ashley M. Swandby, Miami University; Christina McIntosh, Miami University; Alicia Smith, Miami University

2:20 p.m. **Is It Race/Ethnicity, or Is It Socioeconomic Status? Disparities in the Prevalence of Diabetes in the Boston Area Community Health (BACH) Survey—✱**Carol L. Link, New England Research Institutes; John B. McKinlay, New England Research Institutes

2:35 p.m. **Estimation for Age-Period-Cohort Models: With Application to Mesothelioma Data in Alberta—✱**Bei Jiang, University of Alberta; K. C. Carriere, University of Alberta

2:50 p.m. **A Model for Spatio-Temporally Clustered Disease Rates—✱**Ronald Gangnon, University of Wisconsin-Madison

3:05 p.m. **Geocoding Accuracy: Effects of Geographic Features and Spatial Autocorrelation—✱**Jie Li, The University of Iowa; Dale Zimmerman, The University of Iowa

3:20 p.m. **A Comprehensive Multilevel Model of Infant Mortality: A Case Study in Shelby County, Tennessee—✱**Sudip Chatterjee, The University of Memphis

3:35 p.m. **A Generalized Linear Models Approach to Spatial Scan Statistics for Covariate Adjustment—✱**Inkyung Jung, The University of Texas Health Science Center at San Antonio

26 CC-606

● Applications of Survival Time Models—Contributed

Section on Statistics in Epidemiology, Section on Quality and Productivity, Biometrics Section

Chair(s): Rebecca Scherzer, VAMC

2:05 p.m. **Joint Modeling of Survival and Multinomial Data with Applications to Prostate Cancer Stage-Grade Specific Incidence—✱**Chen Hu, The University of Michigan; Alexander Tsodikov, The University of Michigan

2:20 p.m. **Time to Recurrence of Shingles (Herpes Zoster) Infection—✱**Peter C. Wollan, Olmsted Medical Center; Patricia Saddier, Merck & Co., Inc.; Barbara P. Yawn, Olmsted Medical Center

2:35 p.m. **Assessment Predictive Power of Prognostic Models for Melanoma Survival Data—✱**Shouluan Ding, The University of Alabama at Birmingham; Seng-jaw Soong, The University of Alabama at Birmingham

2:50 p.m. **Estimating Prostate Cancer Survival Under a Misattribution of the Cause of Death—✱**Jinkyung Ha, The University of Michigan; Alexander Tsodikov, The University of Michigan

3:05 p.m. **A Nonparametric Approach for Comparing Survival Distributions with Propensity Score Adjustment—✱**Nandita Mitra, University of Pennsylvania; Katrina Armstrong, University of Pennsylvania; Glenn Heller, Memorial Sloan-Kettering Cancer Center; Venkatraman E. Seshan, Columbia University

3:20 p.m. **Evaluation of Prediction in Models of Composite Endpoints and Their Components—✱**Robert Glynn, Brigham & Women's Hospital; Bernard Rosner, Channing Laboratory

3:35 p.m. **Floor Discussion**

27 CC-701

Topics in Statistical Testing—Contributed

IMS, Section on Nonparametric Statistics

Chair(s): Anand N. Vidyashankar, Cornell University

2:05 p.m. **Hazard-Based, Data-Driven, Goodness-of-Fit Tests—✱**Ma. Zenia Agustin, Southern Illinois University Edwardsville

2:20 p.m. **EDF Goodness-of-Fit Tests for Testing the Distributional Assumptions in ANOVA—✱**Dhanuja Kasturiratna, Northern Kentucky University; Truc T. Nguyen, Bowling Green State University; Arjun K. Gupta, Bowling Green State University

2:35 p.m. **Goodness-of-Fit Tests for Multivariate Normality—✱**Ming Zhou, Iowa State University

2:50 p.m. **Asymptotic Expansion of the Null Distributions of Test Statistics for Profile Analysis Under General Conditions—✱**Solomon W. Harrar, University of Montana; Jin Xu, East China Normal University

3:05 p.m. **Conditioning on the Tail: A Rationale for Using Traditional Two-Tailed Tests and Confidence Intervals—**Paul W. Vos, East Carolina University; ✱Suzanne Hudson, East Carolina University

3:20 p.m. **Moderate Deviations for Two Sample T-Statistics—✱**Hongyuan Cao, The University of North Carolina at Chapel Hill

3:35 p.m. **Concomitants of Order Statistics for Bivariate Pseudo Inverse Rayleigh Distribution—✱**Muhammad Q. Shahbaz, COMSATS Institute of Information Technology; Munir Ahmad, NCBA&E

28 CC-711

Monte Carlo Methods—Contributed

Section on Statistical Computing, IMS

Chair(s): Tsung-Chi Cheng, National Cheng-Chi University

2:05 p.m. **Automated Markov Chain Monte Carlo Based on the Ratio of Uniforms Transformation—✱**Chris Groendyke, The Pennsylvania State University

2:20 p.m. **The Monte Carlo Fisher Scoring Method—✱**Yong Wang, The University of Auckland

2:35 p.m. **On the Assessment of Monte Carlo Error in Statistical Experiments—✱**Elizabeth Koehler, Vanderbilt University; Sebastien Haneuse, Group Health Center for Health Studies; Elizabeth R. Brown, University of Washington

2:50 p.m. **Application of a New Multivariate Resampling Method To Improve Statistical Performance of Multiple Regression with Small Samples—✱**Haiyan Bai, University of Central Florida; Wei Pan, University of Cincinnati

3:05 p.m. **Phylogenetic Consensus Tree Construction Using Stochastic Approximation Monte Carlo—✱**Sooyoung Cheon, University of Virginia

3:20 p.m. **Public Hurricane Loss Evaluation Models: Predicting Losses of Residential Structures in the State of Florida—**Shahid Hamid, Florida International University; ✱B.M. Golam Kibria, Florida International University; Sneh Gulati, Florida International University; Mark Powell, National Oceanic and Atmospheric Administration; Bachir Annane, CIMAS, Rosenstiel School/ University of Miami; Steve Cocke, Florida State University; Jean-Paul Pinelli, Florida Institute of Technology; Shu-Ching Chen, Florida International University

3:35 p.m. **Floor Discussion**

29 CC-111

Applications in Health Promotion—Contributed

Section on Health Policy Statistics,
Section on Statistics in Epidemiology

Chair(s): Bob Gerzoff, Centers for Disease Control and Prevention

2:05 p.m. **Multilevel Analysis for Child Nutrition and Health: Pick a Better Snack in Iowa—✱**Mack Shelley, Iowa State University; Doris Montgomery, Iowa Department of Public Health; Xia Chen, Iowa Department of Public Health

2:20 p.m. **Simpson's Paradox in Real Life: The Center for Medicare Services Composite Quality Score—✱**Carlos F. Alzola, Data Insights; Sam Ogunbo, Maryland Hospital Association; Nikolas Matthes, Maryland Hospital Association

2:35 p.m. **Analysis of Health and Safety Data: Near Misses and Injury-Illness Rates—✱**Rama Sastry, U.S. Department of Energy

2:50 p.m. **Evaluating the Sizes of Differences Between Group Rates in Settings of Different Overall Prevalence—✱**James P. Scanlan, Attorney at Law

3:05 p.m. **Analysis of National Survey Data on Public Concerns About Avian Influenza for Preparedness Planning—✱**William E. Pollard, Centers for Disease Control and Prevention

3:20 p.m. **Patient Teenagers: Virginity Pledges as a Marker for Lower Sexual Activity—✱**Janet Rosenbaum, University of Illinois at Chicago

3:35 p.m. **Estimation of Net Present Value of Total Health Care Costs—✱**Lin Liu, Eli Lilly and Company; Joseph C. Gardiner, Michigan State University; Zhehui Luo, RTI International; Charles Given, Michigan State University

30 CC-112

● ▲ Bayesian Models and Methods for Spatial and Temporal Data—Contributed

Section on Bayesian Statistical Science,
Section on Statistical Computing

Chair(s): James G. Scott, Duke University

2:05 p.m. **Change of Spatiotemporal Scale in Dynamic Models—✱**Yongku Kim, Statistical and Applied Mathematical Sciences Institute; Mark Berliner, The Ohio State University

2:20 p.m. **A Stochastic Neighborhood Conditional Auto-Regressive Model for Spatial Data—✱**Gentry White, North Carolina State University; Sujit Ghosh, North Carolina State University

2:35 p.m. **Combining Complex Climate Models with Massive Observational Data for Predicting Climate Change—✱**K. Sham Bhat, The Pennsylvania State University; Murali Haran, The Pennsylvania State University; Klaus Keller, The Pennsylvania State University; Joshua Dorin, The Pennsylvania State University

2:50 p.m. **Zero-Inflated Bayesian Spatial Models with Repeated Measurements—✱**Jing Zhang, University of Missouri-Columbia; Chong Z. He, University of Missouri-Columbia

3:05 p.m. **Gaussian Multiscale Spatio-Temporal Models—✱**Marco A.R. Ferreira, University of Missouri-Columbia; Scott Holan, University of Missouri-Columbia; Adelmo Bertolde, Federal University of Espirito Santo

3:20 p.m. **Bayesian Estimation of GARCH Models—✱**Daniel Wan Hussin, University Bamberg

3:35 p.m. **A Bayesian Model for Multivariate Functional Data—✱**Ori Rosen, The University of Texas at El Paso; Wesley Thompson, University of Pittsburgh

31 CC-605

Statistical Methods for Clinical Trials I—Contributed

Biometrics Section, Biopharmaceutical Section

Chair(s): Brian Reich, North Carolina State University

2:05 p.m. **Approaches to Handling Data when Trial Conduct Deviates from the Prespecified Simon's Two-Stage Design—✱**Yujun Wu, sanofi-aventis; Weichung Shih, University of Medicine and Dentistry of New Jersey

2:20 p.m. **Approximately Optimal Continuous Stopping Boundaries in a One-Sided Standard Sequential Test—✱**Lan Nygren, Rider University

2:35 p.m. **Sample Size Calculations in Logistic Regression: Re-Revisited—✱**Marepalli B. Rao, University of Cincinnati; Mohammed K. Alam, Forest Research Institute

2:50 p.m. **Comparison of Power Between Randomized Discontinuation Design (RDD) and Upfront Randomization Design (RD) on Progression-Free Survival—✱**Pingfu Fu, Case Western Reserve University; Afshin Dowlati, Case Western Reserve University; Mark Schluchter, Case Western Reserve University

3:05 p.m. **Semiparametric Regression Analysis for Short-Term and Long-Term Covariate Effect with Survival Data—✱**Rajeshwari Sundaram, National Institutes of Health; Song Yang, National Heart, Lung, and Blood Institute

3:20 p.m. **Sample Size Calculation for Selecting a Predictive Marker for a Survival Endpoint—✱**Camelia Sima, Memorial Sloan-Kettering Cancer Center; Alexia Iasonos, Memorial Sloan-Kettering Cancer Center; Mithat Gonen, Memorial Sloan-Kettering Cancer Center

3:35 p.m. **Multivariate Control Chart for Environmental Monitoring—✱**Harry Yang, MedImmune, Inc.; Lanju Zhang, MedImmune, Inc.; Iksung Cho, MedImmune, Inc.

32 CC-608

● Methods in Statistical Genomics—Contributed

ENAR, WNAR, Biometrics Section

Chair(s): Kellie Archer, Virginia Commonwealth University

2:05 p.m. **Incorporating Gene Networks into Statistical Tests for Genomic Data via a Spatially Correlated Mixture Model—✱**Peng Wei, The University of Minnesota; Wei Pan, The University of Minnesota

2:20 p.m. **Reassessing Shrinkage Estimation in Microarray Experiments Having Within-Array Replicate Spots—**Lan Xiao, Michigan State University; ✱Robert Tempelman, Michigan State University

2:35 p.m. **Bayesian Approach for the Identification of DNA Copy Number Changes in aCGH Data—✱**Jie Chen, University of Missouri-Kansas City; Ayten Yigiter, University of Missouri-Kansas City; Kuang-Chao Chang, Fu Jen Catholic University

2:50 p.m. **A Run-Based Procedure To Identify Time-Lagged Gene Clusters in Microarray Experiments—✱**Sunil Mathur, University of Mississippi

3:05 p.m. **A Flexible Semiparametric Test To Detect Associations Between Quantitative Traits and Candidate Genes in Structured Populations with Censored Data—✱**Meijuan Li, The University of Minnesota

3:20 p.m. **Testing for Gene-Environment Interaction: A New Modeling Approach—✱**Bin Huang, Cincinnati Children's Hospital Medical Center; Altaye Mekibib, Cincinnati Children's Hospital Medical Center; Siva Sivaganisan, University Cincinnati

3:35 p.m. **Power Consideration for Incomplete Data Sets in Genetic Studies—✱**Hemant K. Tiwari, The University of Alabama at Birmingham; Miguel Padilla, Old Dominion University; Howard Wiener, The University of Alabama at Birmingham; Jerome Reiter, Duke University

33 CC-710

Likelihood-Based Methodology—Contributed

Biometrics Section, Section on Nonparametric Statistics, IMS

Chair(s): David Todem, Michigan State University

2:05 p.m. **Analyzing Incomplete Data Subject to a Threshold Using Empirical Likelihood Methods: An Application to a Pneumonia Risk Study in an ICU Setting—✱**Jihnhee Yu, University at Buffalo; Albert Vexler, National Institute of Child Health and Human Development; Lili Tian, University at Buffalo

2:20 p.m. **Empirical Likelihood Inference for Censored Median Regression Model via Nonparametric Kernel Estimation—✱**Yichuan Zhao, Georgia State University; Feiming Chen, Spectra Marketing Systems

2:35 p.m. **A Simulation Study Comparing Likelihood and Nonlikelihood Approaches in Analyzing Overdispersed Count Data—✱**Stanley Xu, Kaiser Permanente Colorado; Gary K. Grunwald, University of Colorado; Richard Jones, University of Colorado

2:50 p.m. **Empirical Likelihood Test for Equality of Means of Populations Containing Many Zeros—✱**Le Kang, State University of New York at Buffalo; Albert Vexler, The State University of New York at Buffalo; Lili Tian, University at Buffalo; Germaine B. Louis, National Institute of Child Health and Human Development

3:05 p.m. **Summarizing Likelihood Functions as Functions—✱**Michael B. Brimacombe, New Jersey Medical School

3:20 p.m. **Conventional Inference via a Holistic Approach—✱**Michael P. Jones, Macquarie University

3:35 p.m. **Testing the Homogeneity of the Means of Several Groups of Count Data in the Presence of Unequal Dispersions—✱**Krishna Saha, Central Connecticut State University

34 CC-610-612

● ▲ Issues Related to the Design of Clinical Trials—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Feng (Faith) Gao, GlaxoSmithKline

2:05 p.m. **Optimal Ray Design for Drug Combinations—✱**Yuehui Wu, GlaxoSmithKline; John J. Peterson, GlaxoSmithKline Pharmaceuticals

2:20 p.m. **Optimal Designs for Toxicity Function with a Downturn—✱**Seung Won Hyun, University of Missouri-Columbia; Nancy Flournoy, University of Missouri-Columbia

2:35 p.m. **Orthogonal Experimental Designs Can Disentangle Confounding in Database Studies—✱**Charlie H. Goldsmith, McMaster University; Lehana Thabane, McMaster University; Gary Foster, St. Joseph's Healthcare Hamilton; Eleanor M. Pullenayegum, St. Joseph's Healthcare

2:50 p.m. **Optimization of Design Features in Clinical Trials with a Sensitive Subgroup—✱**Yan D. Zhao, Eli Lilly and Company; Alex Dmitrienko, Eli Lilly and Company; Roy Tamura, Eli Lilly and Company

3:05 p.m. **Strengthening the Understanding of the Relationship Between Survival Designs and Test Statistics—✱**Jitendra Ganju, Amgen, Inc.; Guoguang (Julie) Ma, Amgen, Inc.

3:20 p.m. **Design and Interim Monitoring of a St. Jude Clinical Trial Based on the Gompertz Distribution—✱**Arzu Onar, St. Jude Children's Research Hospital; James M. Boyett, St. Jude Children's Research Hospital; Robert P. Sanders, St. Jude Children's Research Hospital; Amar Gajjar, St. Jude Children's Research Hospital

3:35 p.m. **Noninferiority Trial Designs for Binomial Rate Differences and Odds Ratios—✱**Joan Hilton, University of California, San Francisco

Special Presentation 4:00 p.m.–5:50 p.m.

35 CC-607

Introductory Overview Lecture: Interdisciplinary Communications: Functional Data Analysis and Differential Equation Models—Other

ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Hulin Wu, University of Rochester

Chair(s): Giles Hooker, Cornell University

4:05 p.m. **From Functional Data Analysis to Differential Equation Models, with Applications—✱**James O. Ramsay, McGill University

4:55 p.m. **Statistical Methods for Inverse Problems of Differential Equations, with Biomedical Applications—✱**Hulin Wu, University of Rochester

5:45 p.m. **Floor Discussion**

Invited Sessions 4:00 p.m.–5:50 p.m.

36 **CC-603**

● Analyzing Genetic Data from Health Surveys: Opportunities and Challenges—Invited

ENAR, Biopharmaceutical Section, WNAR, Section on Health Policy Statistics, Section on Statistics in Epidemiology, Biometrics Section

Organizer(s): Hormuzd A. Katki, National Cancer Institute
Chair(s): Barry I. Graubard, National Cancer Institute

4:05 p.m. **Genetic Research in the National Health and Nutrition Examination Surveys—**✱Christopher Sanders, National Center for Health Statistics

4:30 p.m. **Estimating Family Relationships Using DNA Fingerprints Within the NHANES-III Household Survey—**✱Hormuzd A. Katki, National Cancer Institute

4:55 p.m. **Testing for Hardy-Weinberg Equilibrium and for Disequilibrium Across Population Strata in Complex Survey Sample—**✱Yan Li, National Cancer Institute

5:20 p.m. Disc: Bruce Weir, University of Washington

5:40 p.m. **Floor Discussion**

37 **CC-102**

● ▲ Spatio-Temporal Dynamic Models—Invited

Section on Bayesian Statistical Science, Section on Statisticians in Defense and National Security, Section on Physical and Engineering Sciences, Section on Statistics and the Environment

Organizer(s): Christopher Wikle, University of Missouri-Columbia
Chair(s): Christopher Wikle, University of Missouri-Columbia

4:05 p.m. **Space-Time Random-Effects Models—**✱Noel Cressie, The Ohio State University; Lei (Emily) Kang, The Ohio State University

4:35 p.m. **Combining Computer Model Output and Observational Data: Forecasting Climatic and Weather-Related Processes—✱**Mark Berliner, The Ohio State University

5:05 p.m. **Tracking Space Junk—✱**Dave Higdon, Los Alamos National Laboratory; Earl Lawrence, Los Alamos National Laboratory

5:35 p.m. **Floor Discussion**

38 CC-110

● Semiparametric Modeling of Nonlinear and Nonstationary Time Series—Invited

Business and Economics Statistics Section, IMS

Organizer(s): Lijian Yang, Michigan State University
Chair(s): Lijian Yang, Michigan State University

4:05 p.m. **Consistent Nonparametric Tests on Parametric Smooth Coefficient Models—✱**Yiguo Sun, University of Guelph; Zongwu Cai, The University of North Carolina, Charlotte; Qi Li, Texas A&M University

4:35 p.m. **Spline-Backfitted Kernel Smoothing of Additive Coefficient Model—✱**Rong Liu, Michigan State University; Lijian Yang, Michigan State University

5:05 p.m. **Empirical Likelihood-Based Inference for Nonlinear Diffusions—✱**Ke-Li Xu, University of Alberta

5:35 p.m. **Floor Discussion**

39 CC-101

● Post-Imputation Variance Estimation—Invited

Section on Survey Research Methods, Section on Nonparametric Statistics, Section on Government Statistics, Social Statistics Section

Organizer(s): David R. Judkins, Westat, Inc.
Chair(s): Tom Belin, University of California, Los Angeles

4:05 p.m. **Multiple Semiparametric Imputation—✱**David R. Judkins, Westat, Inc.; Andrea R. Piesse, Westat, Inc.; Tom Krenzke, Westat, Inc.

4:30 p.m. **Multiply Imputing Potential Outcomes To Estimate Individual Causal Effects—✱**Susanne Rässler, Otto-Friedrich University Bamberg; Donald B. Rubin, Harvard University

4:55 p.m. **Fractional Imputation Using a Parametric Imputation Model—✱**Jae-kwang Kim, Yonsei University; Wayne Fuller, Iowa State University

5:20 p.m. Disc: Joseph L. Schafer, The Pennsylvania State University

5:40 p.m. **Floor Discussion**

40 CC-702

● ▲ Statistical Methods for Multivariate Dental Data—Invited

Biometrics Section, Biopharmaceutical Section

Organizer(s): Thomas M. Braun, The University of Michigan
Chair(s): Thomas M. Braun, The University of Michigan

4:05 p.m. **Bayesian Modeling of Multivariate Spatial Binary Data: Applications to Dental Epidemiology—✱**Brian Reich, North Carolina State University; Dipankar Bandyopadhyay, Medical University of South Carolina; Elizabeth Slate, Medical University of South Carolina

4:30 p.m. **Bayesian Generalized Latent Variable Models for Spatial Correlated Binary Data with Applications to Dental Outcomes—✱**David Todem, Michigan State University; Yanwei Zhang, Michigan State University; KyungMann Kim, University of Wisconsin-Madison; Emmanuel Lesaffre, Erasmus University

4:55 p.m. **Analysis of Nested Observations Over Teeth and Time: A Combined Estimating Equations Approach—✱**Julie A. Stoner, University of Oklahoma Health Sciences Center; Brian G. Leroux, University of Washington

5:20 p.m. **Flexible Accelerated Failure Time Frailty Models for Multivariate Interval-Censored Data with an Application in Caries Research—✱**Emmanuel Lesaffre, Erasmus University; Arnost Komarek, Charles University in Prague

5:45 p.m. **Floor Discussion**

41 CC-709

● ▲ Communicating with Nonstatisticians—Invited

Section on Quality and Productivity, Section on Physical and Engineering Sciences, Section on Bayesian Statistical Science, Social Statistics Section, Section on Government Statistics, Section on Health Policy Statistics

Organizer(s): Sarah Boslaugh, BJC HealthCare

Chair(s): Sarah Boslaugh, BJC HealthCare

4:05 p.m. **Statistics and Due Process: Two Statistically Significant Issues in Law—✱**Mark G. Haug, The University of Kansas School of Business

4:35 p.m. **Providing Biostatistical Support to an Understaffed and Underfunded Region—✱**Liam O'Brien, Colby College

5:05 p.m. **Communicating Statistics to Engineers and Managers—✱**Gerald Hahn, GE Corporate Research and Development (retired)

5:35 p.m. **Floor Discussion**

42 CC-605

● ▲ Visualizing Large Data Sets—Invited

Section on Statistical Graphics, Section on Nonparametric Statistics, Section on Statisticians in Defense and National Security, Section on Physical and Engineering Sciences, Section on Government Statistics

Organizer(s): Heike Hofmann, Iowa State University

Chair(s): Heike Hofmann, Iowa State University

4:05 p.m. **Visualization and Analysis of Streaming Data—✱**Simon Urbanek, AT&T Labs - Research

4:35 p.m. **Ensembles of Models for Understanding Large Data—✱**Hadley Wickham, Iowa State University

5:05 p.m. **Scagnostics and Related Techniques for Automodeling-Based Visualization—**Leland Wilkinson, Northwestern University; ✱Graham Wills, SPSS, Inc

5:35 p.m. **Floor Discussion**

43 CC-610-612

● ▲ New Statistical Methods for Genomewide Association Studies—Invited

IMS, Biopharmaceutical Section, WNAR, Section on Statistics in Epidemiology

Organizer(s): Danyu Lin, The University of North Carolina at Chapel Hill

Chair(s): Danyu Lin, The University of North Carolina at Chapel Hill

4:05 p.m. **Opportunities and Challenges of Whole-Genome Association Studies—✱**David Siegmund, Stanford University

4:35 p.m. **Extensions of Conditional Likelihood Bias Adjustment for Disease Association Risk Estimates in Whole-Genome Scans—✱**Fred Wright, The University of North Carolina at Chapel Hill; Arpita Ghosh, The University of North Carolina at Chapel Hill; Fei Zou, The University of North Carolina at Chapel Hill

5:05 p.m. **On the Analysis of Copy-Number Variations in Genome-Wide Association Studies: A Translation of the Family-Based Association Test—✱**Christoph Lange, Harvard School of Public Health

5:35 p.m. **Floor Discussion**

44 CC-703

Memorial Session for Randy Sitter—Invited

Memorial, Section on Nonparametric Statistics, Section on Survey Research Methods, Section on Physical and Engineering Sciences, Section on Quality and Productivity, Committee on ASA Archives and Historical Materials

Organizer(s): Derek Bingham, Simon Fraser University

Chair(s): Derek Bingham, Simon Fraser University

4:05 p.m. **Randy Sitter's Contributions to Resampling Methods in Sample Surveys—✱**J. N. K. Rao, Carleton University

4:35 p.m. **A Statistical Approach to Quantifying the Elastic Deformation of Nanomaterials—✱**C.F. Jeff Wu, Georgia Institute of Technology

5:05 p.m. **Using Empirical Likelihood Methods To Obtain Range Restricted—✱**Jiahua Chen, The University of British Columbia; J. N. K. Rao, Carleton University; Randy Sitter, Simon Fraser University

5:35 p.m. **Floor Discussion**

Invited Panels 4:00 p.m.–5:50 p.m.

45 CC-108

▲ Training Community Collaborators To Understand and Effectively Use Health-Related Data—Invited

Committee on Outreach Education,
Section on Statistics in Epidemiology,
Section on Teaching Statistics in the Health Sciences

Organizer(s): Wendy Martinez, Office of Naval Research
Chair(s): Jodi Lapidus, Oregon Health & Science University

Panelists: ✱Francine Romero, Southwest Tribal Epidemiology Center

✱Kapuaola Gellert, Na Pu'wuai Native Hawaiian Health Care System

✱Walter T. Ambrosius, Wake Forest University School of Medicine

5:35 p.m. **Floor Discussion**

46 CC-103

● ▲ The Impact of AP Statistics on Our Profession: Past, Present, and Future—Invited

Mu Sigma Rho, Section on Statistical Education

Organizer(s): Christine Franklin, The University of Georgia
Chair(s): Brad Hartlaub, Kenyon College

Panelists: ✱Christine Franklin, The University of Georgia

✱Richard Scheaffer, University of Florida

✱Roxy Peck, California Polytechnic State University

✱Katherine Tranbarger, Amherst College

✱David Thiel, Clark County School District

5:45 p.m. **Floor Discussion**

Topic-Contributed Sessions 4:00 p.m.–5:50 p.m.

47 CC-202

● ▲ Clustering in Marketing Research: International Experience—Topic-Contributed

Section on Statistics and Marketing, Social Statistics Section

Organizer(s): Stan Lipovetsky, GfK Custom Research North America
Chair(s): Derek R. Allen, GfK Custom Research North America

4:05 p.m. **Robust Model-Based Method for Cluster Analysis: Theory and Practice—✱**Ewa M. Nowakowska, GfK Polonia; Agnieszka Fronczyk, GfK Polonia; Krzysztof Z. Puszczak, GfK Polonia

4:25 p.m. **A New Approach for International Market Segmentation—✱**Shon Magnan, GfK Custom Research North America

4:45 p.m. **Outlier Detection in Segmentation Studies—✱**Norbert Wirth, Advanced Analytics Europe, MarketTools

5:05 p.m. **Customer Profiling in Mixed Models: Data Modeling with Cluster Analysis Results—✱**Erin McClintic Tanenbaum, Claritas, A Nielsen Company

5:25 p.m. **Bayesian Networks in Segmentation for Marketing Research—✱**Benoit Hubert, GfK

5:45 p.m. **Floor Discussion**

48 CC-608

● ▲ Recent Developments in Method and Application in High-Dimensional 'Omics' Data—Topic-Contributed

Committee on Applied Statisticians

Organizer(s): Lei Zhu, GlaxoSmithKline
Chair(s): Huixia Wang, North Carolina State University

4:05 p.m. **Shrinkage Approach to Gene-Set Analysis: SAGA—✱**Daniel C. Parks, GlaxoSmithKline R&D; Xiwu Lin, GlaxoSmithKline R&D; Kwan Lee, GlaxoSmithKline

4:25 p.m. **Estimation Equation Based Causality Analysis with Application to Microarray Time Series Data—✱**Jianhua Hu, The University of Texas M.D. Anderson Cancer Center; Feifang Hu, University of Virginia

4:45 p.m. **Non-Negative Matrix Factorization of Microarray Data—✱**Katja S. Remlinger, GlaxoSmithKline R&D; S. Stanley Young, National Institute of Statistical Sciences; Paul Fogel, Consultant; Kejun (Jack) Liu, OmicSoft

5:05 p.m. **Segmentation of Treatment Effect via Analyzing Genetic Marker Profiles—✱**Peter Hu, Merck & Co., Inc.

5:25 p.m. **Analysis of Multiple Cancer GEO Microarray Data Sets—✱**George Luta, Georgetown University; Paul Fogel, Consultant; Kejun (Jack) Liu, OmicSoft; S. Stanley Young, National Institute of Statistical Sciences

5:45 p.m. **Floor Discussion**

49 CC-604

● Statistics in Ophthalmology Clinical Trials—Topic-Contributed

Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): TC Lu Hollington, U.S. Food and Drug Administration; Philip T. Lavin, Averion Inc.

Chair(s): Kyunghee K. Song, U.S. Food and Drug Administration

4:05 p.m. **Are Visual Acuity Measurements Independent of Test Distance? Statistical Analysis in Search for an Answer—✱**Li Ming Dong, State University of New York at Stony Brook

4:25 p.m. **Statistical Analysis of Visual Field and Visual Field Loss Data in Ophthalmic Research—✱**Fei Yu, University of California, Los Angeles; Anne L. Coleman, University of California, Los Angeles

4:45 p.m. **Accounting for Correlation in Regression Analyses of Longitudinal Data from Paired Eyes—✱**Gui-shuang Ying, University of Pennsylvania; Maureen Maguire, University of Pennsylvania

5:05 p.m. **Statistical Considerations in Ophthalmic Device Trials—✱**Hollington T.C. Lu, U.S. Food and Drug Administration

5:25 p.m. Disc: LuoHua Jiang, University of Colorado Health Center

5:45 p.m. **Floor Discussion**

50 CC-111

● Statistical Methods in Public Health: Applications, Research, and Education—Topic-Contributed

Section on Health Policy Statistics, Section on Government Statistics, Section on Survey Research Methods, Social Statistics Section

Organizer(s): Karen Kafadar, University of Colorado at Denver and Health Sciences Center

Chair(s): Kathe Bjork, University of Colorado at Denver and Health Sciences Center

4:05 p.m. **Evaluating the Uncertainty in HIV/AIDS Infection Models—✱**Huaiyu Ma, GE Global Research; Roger W. Hoerl, GE Global Research

4:25 p.m. **Recent Background and Influences on the Direction of Research in Public Health Biosurveillance—✱**Henry Rolka, Centers for Disease Control and Prevention

4:45 p.m. **Statistical Considerations in Large-Scale Screening Programs: Impacts on the Public—✱**Sonya Heltshe, Rocky Mountain Denver Poison Center; Karen Kafadar, University of Colorado at Denver and Health Sciences Center; Philip Prorok, National Cancer Institute

5:05 p.m. **Assessing the Effects of Air Pollution on Human Health—✱**Rebecca Klemm, Klemm Analysis, Inc.; Donna Stroup, Data for Solutions, Inc.

5:25 p.m. Disc: Denise Roe, The University of Arizona

5:45 p.m. **Floor Discussion**

51 CC-104

Semiparametric Bayesian Methods—Topic-Contributed

Section on Bayesian Statistical Science, Section on Nonparametric Statistics

Organizer(s): Sanjib Basu, Northern Illinois University

Chair(s): Feng Liang, University of Illinois at Urbana-Champaign

4:05 p.m. **Toward Fully Nonparametric Bayesian Regression—✱**Siddhartha Chib, Washington University in St. Louis; Edward Greenberg, Washington University in St. Louis

4:25 p.m. **Bayesian Estimation of ROC Curve Based on Ranks—✱**Subhahsis Ghoshal, North Carolina State University; Jiezhun Gu, Duke Cliinical Research Institute

4:45 p.m. **Modeling Heteroscedasticity in the Single-Index Model with the Dirichlet Process—**✱George Karabatsos, University of Illinois at Chicago

5:05 p.m. **Modeling with Double Dirichlet Process Mixtures—**✱Sanjib Basu, Northern Illinois University; Siddhartha Chib, Washington University in St. Louis

5:25 p.m. **Parametric and Semiparametric Hypotheses in the Linear Model—**✱Steven N. MacEachern, The Ohio State University; Subharup Guha, University of Missouri-Columbia

5:45 p.m. **Floor Discussion**

52 CC-107

Current Statistical Topics Involving Individual Income Tax Statistics—Topic-Contributed

Section on Government Statistics,
Section on Survey Research Methods,
Section on Quality and Productivity, Social Statistics Section

Organizer(s): Michael E. Weber, Statistics of Income, IRS

Chair(s): Barry Johnson, Statistics of Income, IRS

4:05 p.m. **Statistics from Individual Income Tax Returns: Populations, Samples, and Processing of Individual Income Tax Returns at Statistics of Income—**✱Michael E. Weber, Statistics of Income, IRS; David P. Paris, Statistics of Income, IRS; Peter J. Sailer, Consultant

4:25 p.m. **SOI/IRS Sales of Capital Assets Sample Redesign for Tax Year 2007—**Yan K. Liu, Statistics of Income, IRS; ✱Michael Strudler, Statistics of Income, IRS; Jana Scali, Statistics of Income, IRS; Janette Wilson, Statistics of Income, IRS

4:45 p.m. **Attrition in the Tax Years 1999–2005 Individual Income Tax Return Panel—**✱Victoria Bryant, Statistics of Income, IRS

5:05 p.m. **Methodological Limitations in Producing Subnational Tabulations of Unincorporated Business Activity That Partnerships and Sole Proprietorships Report on Returns—**✱Joseph Koshansky, Internal Revenue Service

5:25 p.m. Disc: Robin Fisher, U.S. Department of Treasury

5:45 p.m. **Floor Discussion**

53 CC-710

Recent Methodological Developments in Analysis of Large Data Sets—Topic-Contributed

Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Statistical Computing

Organizer(s): Lingsong Zhang, Harvard University; Jae Keun Yoo, University of Louisville

Chair(s): Jae Keun Yoo, University of Louisville

4:05 p.m. **Model-Free Variable Selection via Adaptive LASSO—**✱Liqiang Ni, University of Central Florida

4:25 p.m. **Central Mean Subspace in Time Series—**✱Jin-Hong Park, College of Charleston

4:45 p.m. **On Parametric and Semiparametric Approaches to Differential Gene Expression Detection and Sample Size Calculation for Microarray Study—**✱Baolin Wu, The University of Minnesota; Dan Nettleton, Iowa State University

5:05 p.m. **A Nonparametric Significance Test of No Trend for Functional Data—**Jeongyoun Ahn, The University of Georgia; ✱Cheolwoo Park, The University of Georgia; Woncheol Jang, The University of Georgia

5:25 p.m. **Sparse Distance-Weighted Discrimination—**✱Lingsong Zhang, Harvard University; Xihong Lin, Harvard University

5:45 p.m. **Floor Discussion**

54 CC-708

Multivariate Outlier Detection: Applications and Methodology—Topic-Contributed

Section on Statistical Computing, Section on Physical and Engineering Sciences

Organizer(s): Karen Kafadar, University of Colorado at Denver and Health Sciences Center

Chair(s): Michael W. Trosset, Indiana University

4:05 p.m. **Multivariate Outlier Detection by Partial Mixture Fits—**✱David W. Scott, Rice University

4:25 p.m. **Statistical Methods for Detecting Computer Attacks from Streaming Internet Data—**✱Ginger Davis, University of Virginia; Karen Kafadar, University of Colorado at Denver and Health Sciences Center; David Marchette, Naval Surface Warfare Center

4:45 p.m. **High-Energy Physics: Massive Data Analysis in Action—**✱Karen Kafadar, University of Colorado at Denver and Health Sciences Center; Robert Jacobsen, University of California, Berkeley

5:05 p.m. **Multivariate Analysis in Planetary Science: Understanding the Atmospheres of Jupiter and Saturn—✱**Amy Braverman, Jet Propulsion Laboratory; Irina A. Kukuyeva, University of California, Los Angeles; Padma Yanamandra-Fisher, Jet Propulsion Laboratory; Jan Deleeuw, University of California, Los Angeles; Amy Simon-Miller, NASA Goddard Space Flight Center

5:25 p.m. **Monitoring the Golden Gate Bridge Using Wireless Sensor Networks—✱**Guilherme V. Rocha, University of California, Berkeley

5:45 p.m. **Floor Discussion**

Topic-Contributed Panel 4:00 p.m.–5:50 p.m.

55 CC-106

● ▲ Clickers in the Statistics Classroom—Topic-Contributed

Section on Statistical Education, Section on Teaching Statistics in the Health Sciences

Organizer(s): Herle McGowan, The University of Michigan

Chair(s): Brenda Gunderson, The University of Michigan

Panelists: ✱Mark Berenson, Montclair State University

✱Deborah V. Dawson, The University of Iowa

✱Herle McGowan, The University of Michigan

✱Robert Terry, University of Oklahoma

5:45 p.m. **Floor Discussion**

Contributed Sessions 4:00 p.m.–5:50 p.m.

56 CC-705

● Improving Survey Quality Reinterviews, Paradata, and Comprehension—Contributed

Section on Survey Research Methods, Section on Government Statistics, Section on Quality and Productivity

Chair(s): David Morganstein, Westat, Inc.

4:05 p.m. **Reinterview Revisited—✱**Dhirendra N. Ghosh, Synectics for Management Decisions Inc.

4:20 p.m. **Sample Designs for Evaluating the Quality of Data Collection—✱**Cherie Alf, Iowa State University; Sarah Nusser, Iowa State University; Veronica Lessard, U.S. Department of Agriculture

4:35 p.m. **Simulation Modeling of Field Operations in Surveys—✱**Bor-Chung Chen, Federal Railroad Administration

4:50 p.m. **Using Paradata to Actively Manage Data Collection—✱**FranÁois Laflamme, Statistics Canada; Mike Maydan, Statistics Canada; Andrew Miller, Statistics Canada

5:05 p.m. **A Microlevel Latent Class Model for Measurement Error in the Consumer Expenditure Interview Survey—✱**Brian J. Meekins, Bureau of Labor Statistics; Clyde Tucker, Bureau of Labor Statistics; Paul P. Biemer, RTI International/UNC-CH

5:20 p.m. **How To Prioritize Recontacts—✱**Dan Hedlin, Statistics Sweden

5:35 p.m. **Floor Discussion**

57 CC-105

Sample Redesign—Contributed

Section on Survey Research Methods, Social Statistics Section, Section on Government Statistics

Chair(s): Trena M. Ezzati-Rice, Agency for Healthcare Research and Quality

4:05 p.m. **Sample Refreshment, Optimal Allocation, and Other Issues in the Redesign of Panel Surveys—✱**Paul P. Biemer, RTI International/UNC-CH; Margaret Byron, Rho, Inc.; Sara Wheeless, RTI International; Celia Eicheldinger, RTI International

4:20 p.m. **American Community Survey (ACS) Sample Design Issues and Challenges—✱**Steven Hefter, U.S. Census Bureau

4:35 p.m. **Redesigning the American Community Survey (ACS): Computer-Assisted Personal Interview Sample—✱**Edward C. Castro Jr., U.S. Census Bureau; Steven Hefter, U.S. Census Bureau

4:50 p.m. **Sample Allocation and Relative Standard Error Calculation for National Hospital Discharge Survey Redesign—✱**Iris Shimizu, National Center for Health Statistics; Rong Cai, National Center for Health Statistics

5:05 p.m. **Assessing Oversampling of Older Persons in a National Health Survey—✱**Karen E. Davis, National Center for Health Statistics; Chris Moriarity, National Center for Health Statistics

5:20 p.m. **Implementation of Controlled Selection in the National Compensation Survey Redesign—✱**Lawrence R. Ernst, Bureau of Labor Statistics; Christopher J. Guciardo, Bureau of Labor Statistics; Yoel Izsak, National Agricultural Statistics Service; Jonathan J. Lisic, Bureau of Labor Statistics; Chester H. Ponikowski, Bureau of Labor Statistics

5:35 p.m. **Floor Discussion**

58 CC-606

● Models for Longitudinal Data—Contributed

Section on Statistics in Epidemiology, Biopharmaceutical Section, WNAR, Section on Survey Research Methods, Biometrics Section

Chair(s): B. Rey de Castro, Westat, Inc.

4:05 p.m. **Testing for Qualitative Interaction of Multiple Sources of Informative Dropout in Longitudinal Data—✱**Sara B. Crawford, Valparaiso University; John J. Hanfelt, Emory University

4:20 p.m. **Overdispersed Continuous-Time Models with Epidemiological Applications—✱**Carles Breto, Universidad Carlos III de Madrid; Edward L. Ionides, The University of Michigan; Aaron A. King, The University of Michigan

4:35 p.m. **Multilevel Modeling Technique and Bootstrap Variance Estimation in Longitudinal and Cross-Sectional Complex Survey Data Sets—✱**Alomgir Hossain, University of Saskatchewan; Punam Pahwa, University of Saskatchewan; Bruce Reeder, University of Saskachewan; Bonnie Janzen, University of Saskatchewan

4:50 p.m. **Correction of Bias from Nonrandom Missing Longitudinal Data—✱**Cuiling Wang, Albert Einstein College of Medicine; Charlie B. Hall, Albert Einstein College of Medicine

5:05 p.m. **Modeling Change in Longitudinal Studies: Use Age Only or Initial Age and Time?—✱**Christopher H. Morrell, Loyola College in Maryland; Larry J. Brant, National Institute on Aging; Luigi Ferrucci, National Institute on Aging

5:20 p.m. **Comparison of Generalized Estimating Equations and Quadratic Inference Functions in Longitudinal Analysis of Data from the NLSCY Database—✱**Adefowope O. Odueyungbo, McMaster University; Dillon Browne, University of Guelph; Norri Akhtar-Danesh, McMaster University; Lehana Thabane, McMaster University

5:35 p.m. **Floor Discussion**

59 CC-109

Spatial and Space-Time Models and Applications—Contributed

Section on Statistics and the Environment, WNAR

Chair(s): Mark C. Greenwood, Montana State University, Bozeman

4:05 p.m. **Spatio-Temporal Modeling of Intra-Urban Variations in Air Pollution Concentrations—✱**Adam A. Szpiro, University of Washington; Paul D. Sampson, University of Washington; Lianne Sheppard, University of Washington; Darren Wilton, University of Washington; Tim Larson, University of Washington; Thomas Lumley, University of Washington; Sara D. Adar, University of Washington

4:20 p.m. **A Bayesian Spatial Model To Downscale Outputs from Numerical Models—✱**Veronica J. Berrocal, U.S. Environmental Protection Agency; Alan Gelfand, Duke University

4:35 p.m. **A Multivariate Spatial Model for Prediction of Storm Outages—✱**Hongfei Li, IBM T. J. Watson Research Center; Jonathan Hosking, IBM T. J. Watson Research Center

4:50 p.m. **An Investigation for the Trend of Global Warming Based on the Global Seawater Oxygen-18 Database from NASA—✱**Qiqi Deng, The University of Minnesota; Snigdhansu Chatterjee, The University of Minnesota

5:05 p.m. **Probabilistic Assessment of Regional Climate Change by Ensemble Dressing—✱**Christian Schoelzel, Meteorological Institute at the University of Bonn; Andreas Hense, Meteorological Institute at the University of Bonn

5:20 p.m. **Infill Asymptotic Properties of Tapered Maximum Likelihood Estimators—✱**Juan Du, Michigan State University; Hao Zhang, Purdue University; V. S. Mandrekar, Michigan State University

5:35 p.m. **Floor Discussion**

60 CC-701

● Student Success in K–12 and Beyond—Contributed

Section on Statistical Education

Chair(s): Sam Behseta, California State University, Bakersfield

4:05 p.m. **Is NCLB Inflating Trends at Proficiency? A Cross-State Analysis of Trends Across Cut Scores—Q**Katherine Furgol, The University of Iowa

4:20 p.m. **Data Analysis and Probability: An Examination of Criterion-Referenced Test Scores—✱**Calli Holaway-Johnson, University of Arkansas; Charles Stegman, University of Arkansas; Sean Mulvenon, University of Arkansas

4:35 p.m. **Improving Statistics Self-Efficacy: Learning from Errors and Feedback—✱**T. Simin Hall, The University of North Carolina, Greensboro

4:50 p.m. **The Relationship Between Learner-Centered Practices and Adolescent Achievement: A Latent Profile Analysis—✱**Michelle Vanchu-Orosco, University of Denver; Barbara L. McCombs, University of Denver Research Institute; Steven A. Culpepper, Metropolitan State College of Denver

5:05 p.m. **Who Gets Better Grades in the Statistics Course?—✱**Jen-Ting Wang, SUNY-Oneonta; Shu-Yi Tu, The University of Michigan, Flint

5:20 p.m. **Predicting Success in College Math Courses—✱**Casey Gearheart, Roanoke College

5:35 p.m. **A Causal Relationship Model of Factors Affecting Professional Competency Development of Computer Sciences Students—✱**Wilailuk Seritrakul, Bangkok University

61 CC-711

Statistical Software—Contributed

Section on Statistical Computing, Section on Survey Research Methods

Chair(s): Margaret D. Carroll, National Center for Health Statistics

4:05 p.m. **Probabilistic and Fuzzy Matching as Applied to Record Linkage and Computerized Coding—✱**Michael J. Wenzowski, Statistics Canada

4:20 p.m. **Rank and Set Restrictions for Homogeneity Analysis in R—✱**Patrick Mair, Wirtschaftsuniversität Wien; Jan de Leeuw, University of California, Los Angeles

4:35 p.m. **Sensitivity Analysis for Observational Studies: The ObsSens Package for R—✱**Gregory L. Snow, Intermountain Healthcare

4:50 p.m. **SAFAL: Statistical Analysis Functions Automating Language—✱**Babubhai V. Shah, SAFAL Institute Inc.

5:05 p.m. **An Open Source Library for the Estimation and Evaluation of ACD Models—✱**Guillaume Weisang, Bentley College

5:20 p.m. **Algorithmic Errors in the Estimation of Tobit II Models and the Corresponding Failure To Recognize Selection Bias—**Thomas Zuehlke, Florida State University; ✱Anthony Kassekert, Florida State University

5:35 p.m. **GLUMIP 2.0: SAS/IML Software for Planning Internal Pilots—✱**John A. Kairalla, University of Florida; Christopher S. Coffey, The University of Alabama at Birmingham; Keith E. Muller, University of Florida

62 CC-707

● ▲ Statistics in the Physical Sciences—Contributed

Section on Physical and Engineering Sciences

Chair(s): Tena I. Katsaounis, The Ohio State University

4:05 p.m. **Statistical Learning Methods for Neutron Transmission Tomography of Fuel Cells—✱**Kevin J. Coakley, National Institute of Standards and Technology; Daniel S. Hussey, National Institute of Standards and Technology; Dominic F. Vecchia, National Institute of Standards and Technology

4:20 p.m. **Determining Dispersion Effects in Cultured Fish—✱**Tess Astatkie, Nova Scotia Agricultural College; Jim Duston, Nova Scotia Agricultural College

4:35 p.m. **Regression Analysis Investigation of the Link Between Hurricane Frequency and Climate Change—✱**Roshanak Nateghi, Johns Hopkins University; Steven Quiring, Texas A&M University; Seth D. Guikema, Johns Hopkins University

4:50 p.m. **Modeling Spike Train Transformations in Brain Region—✱**Dong Song, University of Southern California; Rosa H.M. Chan, University of Southern California; Vasilis Z. Marmarelis, University of Southern California; Robert E. Hampson, Wake Forest University; Sam A. Deadwyler, Wake Forest University; Theodore W. Berger, University of Southern California

5:05 p.m. **Spam Email Detection and Classification: A Bayes/Empirical Bayes Approach—✱**Cheng C. Chen, Texas A&M University; Thomas Chen, Southern Methodist University; Rajat Sethi, Texas A&M Health Science Center

5:20 p.m. **Estimating the Skewness and Kurtosis of Nonlinear Time Series: Analysis of Turbulent Flows with Coherent Structures—✱**Alexander Gluhovsky, Purdue University

5:35 p.m. **A Comparative Study of Mechanistic and Statistical Modeling of Water Quality Parameters in Hillsborough Bay, Florida—✱**Keith E. Hackett, University of South Florida; Chris P. Tsokos, University of South Florida

63 CC-712

● ▲ Semiparametric Inference Under Partially Linear, Single-Index, and Related Models—Contributed

Section on Nonparametric Statistics, IMS

Chair(s): Abu Minhajuddin, The University of Texas Southwestern Medical Center

4:05 p.m. **Partial Linear Regression Model Checking with Berkson Measurement Errors**—✱Weixing Song, Kansas State University

4:20 p.m. **On Estimation of Censored Single-Index Models**—✱Zhulin He, University of Calgary; Xuewen Lu, University of Calgary

4:35 p.m. **Bandwidth Selection and Goodness-of-Fit Tests for Single-Index Models**—✱Wei Lin, The Ohio State University

4:50 p.m. **Penalized Quadratic Inference Functions for Single-Index Models with Longitudinal Data**—✱Yang Bai, The University of Hong Kong

5:05 p.m. **Testing for Linearity of the Nonparametric Component of a Partially Linear Model**—✱Chin-Shang Li, University of California, Davis

5:20 p.m. **Floor Discussion**

64 CC-602

Modeling of Brain Imaging and Related Data—Contributed

Biometrics Section, Section on Nonparametric Statistics, Biopharmaceutical Section, WNAR

Chair(s): Russell L. Zaretzki, The University of Tennessee, Knoxville

4:05 p.m. **Wavelet Estimation and fMRI Applications**—✱Zibonele A. Valdez-Jasso, The University of Texas at Dallas; Sam Efromovich, The University of Texas at Dallas

4:20 p.m. **Thresholding Complex Magnetic Resonance Images Using Magnitude and Phase**—✱Daniel B. Rowe, Medical College of Wisconsin

4:35 p.m. **Estimating Distributions of Onset Times and Durations from Multisubject fMRI Studies**—✱Lucy F. Robinson, Columbia University; Martin Lindquist, Columbia University

4:50 p.m. **A Social Network Probability Map of the Brain**—✱Lynne Seymour, The University of Georgia

5:05 p.m. **Identifying Active Regions of the Brain via Social Networks Modeling in Single Subjects**—Lynne Seymour, The University of Georgia; ✱Ana M. Bargo, The University of Georgia; Abhyuday Mandal, The University of Georgia

5:20 p.m. **Adapting FDR Thresholding Procedures to Neuroimaging—✱**Lynn E. Eberly, The University of Minnesota; Brian S. Caffo, Johns Hopkins University

5:35 p.m. **Floor Discussion**

65 CC-112

Credit; Bootstrap—Contributed

Business and Economics Statistics Section

Chair(s): Yi Wang, New York University

4:05 p.m. **Predicting Credit Card Attrition Curves with Survival Models—✱**Alfred Furth, South Dakota State University

4:20 p.m. **Modeling the Dynamic of Consumer Credit Utilization—✱**Jie Chen, Bank of America, N.A.; Agus Sudjianto, Bank of America, N.A.; Runze Li, The Pennsylvania State University; Richard Liu, Bank of America, N.A.

4:35 p.m. **Frequency Domain Bootstrap Test for Time Series Linearity—✱**Jane L. Harvill, Baylor University

4:50 p.m. **Generating Random Integer Sequences for Marketing and Risk Analytics—✱**Michial Thompson, Strounine Thompson Technology Group

5:05 p.m. **Pricing Interest Rate Options in a LIBOR Market Model—✱**Ting-Pin Wu, National Taipei University; Shih-Kuei Lin, National University of Kaohsiung

5:20 p.m. **On the Term Structure of Credit Risk Spreads Under Levy Processes—✱**Budhi A. Surya, Bank of America, N.A.

5:35 p.m. **Floor Discussion**

66 CC-704

Statistical Methods for Genome-Wide Association Studies—Contributed

Biometrics Section, Section on Statistics in Epidemiology

Chair(s): Gary L. Gadbury, Kansas State University

4:05 p.m. **Genotyping and Inflated Type I Error Rate in Genome-Wide Association Case/Control Studies—✱**Joshua N. Sampson, Yale University; Hongyu Zhao, Yale University School of Medicine

4:20 p.m. **Power of Model Selection Methods for High-Dimensional, Genome-Wide Association Data—✱**Zheyang Wu, Yale University School of Medicine; Hongyu Zhao, Yale University School of Medicine

4:35 p.m. **Bayesian Inference of Epistatic Interactions with Applications to HIV Drug Resistance—✱**Jing Maria Zhang, Harvard University; Jun S. Liu, Harvard University

4:50 p.m. **Dimensionality Reduction for Genetic Background Estimation in Whole-Genome Association Studies—✱**Jasmin Divers, Wake Forest University Health Sciences; Jennifer B. Erway, Wake Forest University; Matthew L. Stiegert, Wake Forest University Health Sciences; Carl D. Langefeld, Wake Forest University Health Sciences

5:05 p.m. **Determining Heritability Using Second-Level Testing for Genome-Wide Association Studies—✱**Jae Brodsky, University of California, Los Angeles

5:20 p.m. **A Score Statistic for Testing for Genetic Association Given Linkage—✱**Jeanine Houwing-Duistermaat, LUMC; Hae-Won Uh, LUMC; Rick van Minkelen, LUMC; Marieke de Visser, LUMC

5:35 p.m. **What's the Best Statistic for a Simple Test of Genetic Association in a Case-Control Study?—✱**Chia-Ling Kuo, University of Pittsburgh; Eleanor Feingold, University of Pittsburgh

67 CC-601

● ▲ Adaptive Design in Clinical Trials—Contributed

Biopharmaceutical Section, WNAR, Biometrics Section

Chair(s): Keaven Anderson, Merck & Co., Inc.

4:05 p.m. **Adaptive Randomization: The Preferred Randomization in Multicenter Clinical Trials—✱**Bob Zhong, Centocor, Inc.; Lilianne Kim, Centocor, Inc.; Youyi Shu, Centocor, Inc.; Yong-Cheng Wang, Biogen Idec, Inc.

4:20 p.m. **A Hybrid Adaptive Design for Phase 2 Clinical Trials—✱**Richard J. McNally, Pharmion Corporation

4:35 p.m. **An Integrated Algorithm for Adaptive Design: Sample Size Re-Estimation, Interim Treatment Selection, and Futility—Method and Computing Package—✱**Yi He, sanofi-aventis; Zhenming Shun, sanofi-aventis; Martin Roessner, sanofi-aventis

4:50 p.m. **Hypothesis Testing in Adaptive Design for Drop-the-Losers—✱**Gang Li, Johnson & Johnson Pharmaceutical R&D, LLC; Yining Wang, Johnson & Johnson Pharmaceutical R&D, LLC; Peter Ouyang, Johnson & Johnson Pharmaceutical R&D, LLC; Gorden Lan, Johnson & Johnson Pharmaceutical R&D, LLC.

5:05 p.m. **Comparison of the Weighted and Unweighted Z-Statistics Used in a Two-Stage Adaptive Clinical Trial After Sample Size Change—✱**John Ouyang, Otsuka Pharmaceutical Development & Commercialization, Inc.; Peter H. Zhang, Otsuka Pharmaceutical Development & Commercialization, Inc.

5:20 p.m. **Seamless Phase II/III Clinical Trials Using the Likelihood Approach—✱**Guijun Yang, Tianjin University of Finance and Economics; Samuel S. Wu, University of Florida; Mark C.K. Yang, University of Florida; Anqi Sun, University of Florida

5:35 p.m. **Adaptive Designs for Dose-Ranging Phase I/II Trials—✱**Naum M. Khutoryansky, Novo Nordisk Inc

68 CC-706

● ▲ Issues Related to the Analysis of Longitudinal Data—Contributed

Biopharmaceutical Section, Section on Statistics in Epidemiology, Section on Survey Research Methods, WNAR, Biometrics Section

Chair(s): Haiyuan Zhu, Merck Research Laboratories

4:05 p.m. **Likelihood-Based, Mixed-Effects Model Repeated Measures (MMRM) Analysis for Acute Phase Clinical Trial for the Treatment of Major Depressive Disorder—✱**Baldeo K. Taneja, EPIX Pharmaceuticals, Inc.; Thomas Kinghorn, MDS Biostatistics; John Reinhard, Brain Insights, LLC; Andrew Uprichard, EPIX Pharmaceuticals, Inc.

4:20 p.m. **Longitudinal Data Analysis: Repeated Measures Analysis Versus Random Coefficient Models—✱**Radhi Abdulnabi, Ovation Pharmaceuticals, Inc.

4:35 p.m. **Mixture Model for Individual and Combined Data Using Estimating Equations—✱**Pali Sen, University of North Florida; Jacy Crosby, University of North Florida

4:50 p.m. **A Comparison of Methods for Pretest/Post-Test Trials with Small Samples—✱**Xiao Sun, Merck & Co., Inc.; Robin Mogg, Merck Research Laboratories; Devan V. Mehrotra, Merck Research Laboratories

5:05 p.m. **MMRM Analyses with and Without Titration Visits—✱**Phillip Dinh, U.S. Food and Drug Administration; Peiling Yang, U.S. Food and Drug Administration

5:20 p.m. **Modeling Phase-Dependent Effects and Volatile Longitudinal Responses via Geometric Brownian Motion Process—✱**Li Zhu, University of California, Davis; Fushing Hsieh, University of California, Davis; Eric Chi, Amgen, Inc.; Juan Li, Amgen, Inc.

5:35 p.m. **Sensitivity Analyses for Data in Presence of Missing Not at Random: A Case Study—✱**Yanning Liu, Johnson & Johnson Pharmaceutical R&D, LLC

69 CC-113

● Confirmatory Factor Analysis and Principal Components Analysis—Contributed

Social Statistics Section, Section on Nonparametric Statistics, Section on Government Statistics

Chair(s): Ben Earnhart, The University of Iowa

4:05 p.m. **Principal Component Analysis for Symbolic Data—✱**Jennifer Le-Rademacher, The University of Georgia; Lynn Billard, The University of Georgia

4:20 p.m. **On Principal Components and Regression: A Statistical Explanation of a Natural Phenomenon—✱**Andreas A. Artemiou, The Pennsylvania State University; Bing Li, The Pennsylvania State University

4:35 p.m. **The Effects of Toeplitz Structure on the Structural Integrity of Confirmatory Factor Analysis—✱**Bruce L. Brown, Brigham Young University; Jeffrey R. Wheeler, Pentara Corp; Tyson T. Phalp, Myriad Genetics; Petr Blahus, Charles University in Prague

4:50 p.m. **Are Husband And Wives' Hostility and Support Distinct Factors?—✱**Frederick O. Lorenz, Iowa State University; Janet N. Melby, Iowa State University; Rand D. Conger, University of California, Davis

5:05 p.m. **Comparison of Methods To Generate Eigenvalues for Parallel Analysis—✱**Kellie Keeling, University of Denver; Robert Pavur, University of North Texas

5:20 p.m. **Multigroup Confirmatory Factor Analysis: Parameter Bias and Noninvariant Referents—✱**Holmes Finch, Ball State University; Brian F. French, Purdue University

5:35 p.m. **Floor Discussion**

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Sponsored Talks:

Carrie Grimes
Bayesian Design And Bayesian Methods For Poisson Data
08/06/08
8:30am–10:20am

Daryl Pregibon
Statistical Challenges In Online Advertising And Search
08/05/08
10:30am–12:20pm

Diane Lambert
Statistics Dept Chair Workshop

Hal Varian
Statistical Issues For Internet Marketing And Price Optimization
08/04/08
2:00pm–3:50pm

Natalie Glance
Analysis Of Massive Online Social Networks
08/04/08
2:00pm–3:50pm

Rajan Patel
Intelligent Brain Statistics
08/05/08
2:00pm–3:50pm

Tim Hesterberg
Least Angle Regression
08/06/08
2:00pm–3:50pm

William Heavlin
Diagnostics And Goodness Of Fit
08/04/08
10:30am–12:20pm

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Monday, August 4, 5–7 pm
Lundi, 4 août, 17–19 h

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HYATT REGENCY
DENVER
IN QUARTZ 4

▲Theme Session ● Applied Session ✱ Presenter **CC**-Colorado Convention Center **HY**-Hyatt Regency Denver

MONDAY, AUGUST 4

Tours

TR04 - Mile High Historical Tour
9:00 a.m.–1:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

TR05 - Coors Brewery Tour
9:30 a.m.–12:30 a.m. CC-South Shuttle Bus Drop Off/14th & California

Colorado Rockies Baseball Tickets
7:05 p.m. Coors Field

Committee/Business Meetings & Other Activities

7:00 a.m.–8:00 a.m. HY-Capitol Ballroom 6
Caucus for Women in Statistics Breakfast Roundtables
Organizer(s): Marcia Ciol, University of Washington

7:00 a.m.–8:00 a.m. HY-Agate A
Section on Health Policy Statistics Executive Committee Meeting (closed)
Chair(s): A. James O'Malley, Harvard Medical School

7:00 a.m.–8:30 a.m. HY-Capitol Ballroom 1
Section on Statistical Graphics Executive Committee Business Meeting (closed)
Chair(s): Dan Rope, SPSS, Inc

7:00 a.m.–8:30 a.m. CC-206
Section on Government Statistics Executive Board Meeting (closed)
Chair(s): Carol House, U.S. Department of Agriculture

7:00 a.m.–8:30 a.m. HY-Limestone
Business and Economics Statistics Section Executive Committee Meeting (closed)
Chair(s): Sastry Pantula, North Carolina State University

7:00 a.m.–8:30 a.m. HY-Capitol Ballroom 3
Section on Statistical Education Executive Committee Meeting (closed)
Chair(s): Linda J. Young, University of Florida

7:00 a.m.–8:30 a.m. HY-Granite B
Committee on ASA Archives and Historical Materials Meeting (closed)
Chair(s): Carol Lancaster, Medical University of South Carolina

7:00 a.m.–8:30 a.m. HY-Capitol Ballroom 7
ASA-MAA Joint on Undergraduate Statistics Committee Meeting
Chair(s): Robin Lock, St. Lawrence University

7:00 a.m.–8:30 a.m. HY-Capitol Ballroom 2
Committee on Applied Statisticians Business Meeting
Chair(s): Mani Lakshminarayanan, Merck & Co., Inc.

7:00 a.m.–8:30 a.m. HY-Agate C
Survey Review Committee Annual Meeting
Chair(s): Virginia M. Lesser, Oregon State University

7:00 a.m.–8:30 a.m. HY-Mineral Hall C
Committee on Membership Retention and Recruitment Business Meeting (closed)
Chair(s): Dayanand N. Naik, Old Dominion University

7:00 a.m.–8:30 a.m. HY-Mineral Hall E
SPAIG Committee Meeting (closed)
Chair(s): Jai Choi, Medical College of Georgia

7:00 a.m.–8:30 a.m. HY-Agate B
Section on Teaching Statistics in the Health Sciences Executive Committee Meeting
Chair(s): Scott R. Evans, Harvard University

7:00 a.m.–8:30 a.m. HY-Mineral Hall G
***Technometrics* Management Committee Business Meeting (closed)**
Chair(s): Huaiyu Ma, GE Global Research; Roger W. Hoerl, GE Global Research

7:00 a.m.–8:30 a.m. HY-Mineral Hall B
Committee on Professional Ethics
Chair(s): Margaret Nemeth, Monsanto Company

7:00 a.m.–8:30 a.m. HY-Sandstone
***JABES* Management Committee Annual Meeting (closed)**
Chair(s): Jean Opsomer, Colorado State University

7:00 a.m.–9:00 a.m. HY-Marble
Social Statistics Section Executive Board Meeting (closed)
Chair(s): Linda Gage, California Department of Finance

7:00 a.m.–9:00 a.m. HY-Quartz B
ASA/SIAM Book Series Editorial Board Meeting (closed)
Chair(s): Martha Aliaga, The American Statistical Association

7:00 a.m.–9:00 a.m. HY-Mineral Hall D
Committee on Career Development (closed)
Chair(s): Janet Myhre, Mathematical Analysis Research Corp.

7:00 a.m.–6:00 p.m. CC-F2 Lobby Office
Speaker Management Room

7:00 a.m.–10:00 p.m. CC-A Lobby
Cyber Center

7:30 a.m.–8:30 a.m. HY-Mineral Hall A
Communications in Statistics Editorial Board Meeting (closed)
Organizer(s): Narayanaswamy Balakrishnan, McMaster University

7:30 a.m.–9:00 a.m. HY-Granite C
Committee on Minorities in Statistics Business Meeting (closed)
Chair(s): Nagambal Shah, Spelman College

7:30 a.m.–9:00 a.m. HY-Quartz A
ASA Caucus of Academic Representatives Committee Meeting (closed)
Chair(s): Dalene Stangl, Duke University

7:30 a.m.–9:00 a.m. HY-Granite A
Council of Chapters ISEF Meeting
Chair(s): Theresa Utlaut, Intel Corporation

7:30 a.m.–9:00 a.m. HY-Capitol Ballroom 5
Carnegie Mellon Alumni and Faculty Breakfast (closed)
Organizer(s): Margie Smykla, Carnegie Mellon University

7:30 a.m.–6:00 p.m. CC-A Lobby
ASA Membership/Special Assistance/Press Desk

7:30 a.m.–6:00 p.m. CC-A Lobby
JSM Main Registration

8:00 a.m.–12:00 p.m. HY-Centennial Ballroom H
Biopharmaceutical Section Executive Committee
Chair(s): Kannan Natarajan, Novartis Pharmaceuticals

8:00 a.m.–6:00 p.m. CC-Main Lobby
Denver Visitors Information Center

8:00 a.m.–6:00 p.m. CC-Exhibit Hall A
Career Placement Service

8:00 a.m.–6:00 p.m. CC-Exhibit Hall F
Exhibitor Lounge

8:00 a.m.–9:00 p.m. Off Property
Meeting Within a Meeting Workshop for K–12 Math and Science Teachers: K–4 Strand (closed, separate registration required)
Chair(s): Martha Aliaga, The American Statistical Association

8:00 a.m.–9:00 p.m. Off Property
Meeting Within a Meeting Workshop for K–12 Math and Science Teachers: 9–12 Strand (closed, separate registration required)
Chair(s): Martha Aliaga, The American Statistical Association

8:30 a.m.–10:20 a.m. CC-605
Introductory Overview Lecture: Missing and Coarse Data
Organizer(s): Russell Lenth, The University of Iowa
Chair(s): Dale Zimmerman, The University of Iowa

9:00 a.m.–10:00 a.m. HY-Agate A
Transportation Statistics Interest Group Annual Meeting
Organizer(s): Promod Chandhok, U.S. Department of Transportation

9:00 a.m.–10:00 a.m. HY-Sandstone
Mu Sigma Rho National Statistical Honor Society
Organizer(s): Christine Franklin, The University of Georgia

9:00 a.m.–10:00 a.m. HY-Granite A
Council of Chapters Governing Board Planning Meeting (closed)
Chair(s): B. Christine Clark, ReSearch Pharmaceutical Serivces, Inc.

9:00 a.m.–5:00 p.m. CC-A Lobby
ASA Marketplace

9:00 a.m.–6:00 p.m. CC-Exhibit Hall F
EXPO 2008

9:00 a.m.–6:00 p.m. CC-Exhibit Hall F
American Statistical Association Booth #101

10:00 a.m.–11:30 a.m. HY-Granite C
APLIA Meeting I
Organizer(s): Kimberly Wolyn, Cengage Learning

10:00 a.m.–11:30 a.m. HY-Mineral Hall B
Meeting of Caucus of Academic Representatives
Chair(s): Dalene Stangl, Duke University

10:00 a.m.–12:00 p.m. HY-Granite A
Council of Chapters Governing Board Executive Committee Meeting (closed)
Chair(s): B. Christine Clark, ReSearch Pharmaceutical Serivces, Inc.

10:00 a.m.–12:00 p.m. HY-Granite B
Council of Chapters Governing Board Chapter Status Committee Meeting (closed)
Chair(s): John Boyer, Kansas State University

10:00 a.m.–12:30 p.m. HY-Capitol Ballroom 1
Pearson Focus Group (closed)
Organizer(s): Dona Kenly, Pearson Group

GfK
10:15 a.m.–10:45 a.m.
CC-Various Locations
JSM Coffee Break Sponsored by GfK

10:30 a.m.–12:30 p.m. HY-Limestone
Advisory Committee on Continuing Education Business Meeting (closed)
Chair(s): Eileen King, The Procter & Gamble Co

10:30 a.m.–1:50 p.m. CC-208
JSM 2009 Program Committee Meeting (closed)
Chair(s): Wendy Martinez, Office of Naval Research

12:00 p.m.–2:00 p.m. HY-Sandstone
***Journal of Computational and Graphical Statistics* Editor's Meeting (closed)**
Chair(s): David A. van Dyk, University of California, Irvine

12:00 p.m.–2:00 p.m. HY-Agate B
Interface Foundation of North America Board Meeting (closed)
Organizer(s): David Marchette, Naval Surface Warfare Center

12:00 p.m.–5:30 p.m. HY-Granite A
Council of Chapters Governing Board Annual Meeting (closed)
Chair(s): B. Christine Clark, ReSearch Pharmaceutical Serivces, Inc.

12:30 p.m.–2:00 p.m. HY-Marble
ASA, Pfizer, University of Connecticut Project on Filming of Distinguished Statisticians (closed)
Organizer(s): Nitis Mukhopadhyay, University of Connecticut

12:30 p.m.–2:00 p.m. HY-Agate C
Section on Statistical Computing Executive Committee Meeting (closed)
Chair(s): Deborah Nolan, University of California, Berkeley

12:30 p.m.–2:00 p.m. HY-Agate A
Section on Bayesian Statistical Science Executive Business Meeting (closed)
Chair(s): Ronald Christensen, University of New Mexico

12:30 p.m.–2:00 p.m. HY-Granite C
APLIA Meeting II
Organizer(s): Kimberly Wolyn, Cengage Learning

12:30 p.m.–2:00 p.m. HY-Quartz A
***Statistics in Medicine* Journal Editorial Board Meeting and Luncheon (closed)**
Organizer(s): Ralph B. D'Agostino, Sr., Boston University

12:30 p.m.–2:00 p.m. CC-206
Committee on Gay and Lesbian Concerns in Statistics Business Meeting
Chair(s): Barry Johnson, Statistics of Income, IRS

2:00 p.m.–3:50 p.m. CC-605
Late-Breaking Session I: The Accuracy of Election Polls
Organizer(s): David A. Marker, Westat, Inc.
Chair(s): David A. Marker, Westat, Inc.

4:00 p.m.–5:00 p.m. CC-101
Section on Statistics and Marketing Business Meeting
Chair(s): Wendy Moe, University of Maryland, College Park

4:00 p.m.–5:30 p.m. HY-Agate A
Section on Statistics and the Environment Executive Committee Meeting (closed)
Chair(s): Lance Waller, Emory University

4:00 p.m.–6:00 p.m. HY-Centennial Ballroom H
CAUSE Activists Meeting (closed)
Organizer(s): Dennis K. Pearl, The Ohio State University

4:30 p.m.–6:00 p.m. HY-Capitol Ballroom 5
***Biometrics* Editorial Board Meeting (closed)**
Organizer(s): Marie Davidian, North Carolina State University

4:30 p.m.–6:00 p.m. HY-Limestone
Section on Nonparametric Statistics Executive Committee Meeting (closed)
Chair(s): Ronald Randles, University of Florida

4:30 p.m.–6:00 p.m. HY-Capitol Ballroom 6
Section on Statistics in Epidemiology Executive Committee Meeting (closed)
Chair(s): William Barlow, Cancer Research and Biostatistics

5:00 p.m.–6:00 p.m. HY-Mineral Hall F
***Journal of Quality Technology* Editorial Review Board Meeting (closed)**
Organizer(s): Enrique del Castillo, The Pennsylvania State University

5:00 p.m.–6:30 p.m. CC-104
Special Interest Group for Medical Devices and Diagnostics (SIGMEDD)
Organizer(s): Gregory Campbell, U.S. Food and Drug Administration

5:00 p.m.–6:30 p.m. HY-Marble
Centers for AIDS Research Statisticians Meeting
Organizer(s): Susan Ellenberg, University of Pennsylvania

5:00 p.m.–7:00 p.m. HY-Quartz A
Statistical Society of Canada Reception
Organizer(s): Roman Viveros-Aguilera, McMaster University

5:00 p.m.–7:00 p.m. HY-Capitol Ballroom 4
NISS/SAMSI Reception
Organizer(s): Alan Karr, National Institute of Statistical Sciences

5:00 p.m.–8:00 p.m. CC-107 & 109
Texas A&M University (Aggie) Reunion (closed)
Organizer(s): Simon Sheather, Texas A&M University

5:30 p.m.–6:30 p.m. CC-105
Business and Economics Statistics Section Business Meeting
Chair(s): Sastry Pantula, North Carolina State University

5:30 p.m.–6:30 p.m. CC-204
Caucus for Women in Statistics Business Meeting
Organizer(s): Marcia Ciol, University of Washington

5:30 p.m.–7:00 p.m. HY-Granite B
Section on Quality and Productivity Strategic Planning Meeting (closed)
Chair(s): Connie Borror, Arizona State University West

5:30 p.m.–7:00 p.m. HY-Capitol Ballroom 7
The University of North Carolina-Chapel Hill Department of Biostatistics and Department of Statistics/Operations Research Alumni Reception
Organizer(s): Michael Kosorok, The University of North Carolina at Chapel Hill

5:30 p.m.–7:00 p.m. CC-201
Section on Statistics in Sports Business Meeting
Chair(s): Jerome Reiter, Duke University

5:30 p.m.–7:00 p.m. CC-202
Christian Statisticians Informal Discussion
Organizer(s): James Ward, Sand Point Statistics Group

5:30 p.m.–7:00 p.m. CC-208
Biometrics Section Mixer and Business Meeting
Chair(s): Jeremy M.G. Taylor, The University of Michigan

5:30 p.m.–7:00 p.m. HY-Quartz B
Section on Teaching Statistics in the Health Sciences Business Committee Meeting and Mixer
Chair(s): Scott R. Evans, Harvard University

5:30 p.m.–7:00 p.m. HY-Mineral Hall G
Section on Risk Analysis Business Meeting
Chair(s): Ai-Chu Wu, Consultant

5:30 p.m.–7:00 p.m. HY-Mineral Hall C
IMS Member Social
Organizer(s): Elyse Gustafson, Institute of Mathematical Statistics

5:30 p.m.–7:00 p.m. HY-Mineral Hall B
International Indian Statistical Association Welcome and Mixer
Organizer(s): Subir Ghosh, University of California, Riverside

5:30 p.m.–7:30 p.m. HY-Granite C
Social Statistics Section Business Meeting and Social
Chair(s): Linda Gage, California Department of Finance

5:30 p.m.–7:30 p.m. HY-Capitol Ballroom 1
Iowa State University Alumni Gathering (closed)
Organizer(s): Kenneth Koehler, Iowa State University

5:30 p.m.–8:00 p.m. Rock Bottom Brewery
Section on Health Policy Statistics Business Meeting
Chair(s): A. James O'Malley, Harvard Medical School

6:00 p.m.–7:00 p.m. HY-Monarch Suite
ASA President's Invited Speaker Reception (by invitation only)
Chair(s): Peter A. Lachenbruch, Oregon State University

6:00 p.m.–7:00 p.m. CC-206
Russian and Ex-USSR Statisticians Mixer
Organizer(s): Stanislav Kolenikov, University of Missouri-Columbia

6:00 p.m.–7:30 p.m. CC-203
Korean Statisticians Annual Meeting
Organizer(s): Sin-Ho Jung, Duke University

6:00 p.m.–7:30 p.m. HY-Mineral Hall E
Section on Statistics and the Environment Business Meeting and Mixer
Chair(s): Lance Waller, Emory University

6:00 p.m.–8:00 p.m. HY-Sandstone
Section on Survey Research Methods Executive Committee Meeting (closed)
Chair(s): Mary H. Mulry, U.S. Census Bureau

6:00 p.m.–8:00 p.m. HY-Centennial Ballroom F-G
JSM Student Mixer
Chair(s): Dayanand N. Naik, Old Dominion University

6:00 p.m.–8:00 p.m. HY-Agate C
Univeristy of Wisconsin-Madison Reception
Organizer(s): Jun Shao, University of Wisconsin-Madison

6:30 p.m.–7:30 p.m. HY-Mineral Hall A
ASA Longtime Member Reception (closed)
Chair(s): Dayanand N. Naik, Old Dominion University

6:30 p.m.–8:00 p.m. HY-Agate B
CRC Press Author's Appreciation Reception (closed)
Organizer(s): Nadja English, Taylor and Francis

6:30 p.m.–8:00 p.m. CC-105
Joint Business and Economic Statistics Section and the Section of Statistics and Marketing Reception
Chair(s): Sastry Pantula, North Carolina State University; Wendy Moe, University of Maryland, College Park

6:30 p.m.–8:30 p.m. HY-Mineral Hall D
University of Washington Biostatistics and Statistics Alumni Reception
Organizer(s): Andrew Zhou, University of Washington; Sandra Coke, University of Washington

7:30 p.m.–10:00 p.m. HY-Capitol Ballroom 6
Joint Statistical Computing Section and Section on Statistical Graphics Business Meeting and Mixer
Chair(s): Dan Rope, SPSS, Inc; Deborah Nolan, University of California, Berkeley

Continuing Education (Fee Events)

CE_13C
Evaluating Probability of Success for Internal Decisionmaking in Early Drug Development
8:00 a.m.–12:00 p.m. CC-210-212
ASA, Biopharmaceutical Section
Instructor(s): Narinder Nangia, Abbott Laboratories; Martin King, Abbott Laboratories; Jane Qian, Abbott Laboratories

CE_14C
U-Statistics for Scoring Multivariate Data: From Sports to Genetics
8:00 a.m.–12:00 p.m. CC-204
ASA
Instructor(s): Knut M. Wittkowski, The Rockefeller University; Tingting Song, The Rockefeller University Center for Clinical and Translational Science

CE_15C
Analysis of Clinical Trials: Theory and Applications
8:30 a.m.–5:00 p.m. CC-201
ASA, Biopharmaceutical Section
Instructor(s): Christy Chuang-Stein, Pfizer, Inc.; Alex Dmitrienko, Eli Lilly and Company; Keaven Anderson, Merck & Co., Inc.

CE_16C
Graphics of Large Data Sets
8:30 a.m.–5:00 p.m. CC-203
ASA, Section on Statistical Graphics
Instructor(s): Antony Unwin, Augsburg University; Heike Hofmann, Iowa State University

CE_17C
Statistical Evaluation of Medical Tests and Biomarkers for Classification
8:30 a.m.–5:00 p.m. CC-205
ASA, Section on Statistics in Epidemiology
Instructor(s): Margaret S. Pepe, Fred Hutchinson Cancer Research Center; Holly Janes, Fred Hutchinson Cancer Research Center; Todd A. Alonzo, University of Southern California

CE_18C

Computational Statistics: Methods for Monte Carlo Integration and Optimization

8:30 a.m.–5:00 p.m. CC-207

ASA, Section on Statistical Computing

Instructor(s): Jennifer A. Hoeting, Colorado State University; Geof H. Givens, Colorado State University

CE_19C

Methods for Identifying and Dealing with Overdispersed Regression Models

1:00 p.m.–5:00 p.m. CC-204

ASA

Instructor(s): Joseph M. Hilbe, Arizona State University

CE_20C

Adaptive Analysis of Data: Tests of Significance and Confidence Intervals

1:00 p.m.–5:00 p.m. CC-210-212

ASA

Instructor(s): Tom O'Gorman, Northern Illinois University

Roundtables with Coffee 7:00 a.m.–8:15 a.m.

70 **CC-208**

▲ Section on Statistical Consulting Roundtable with Coffee (fee event)

Section on Statistical Consulting

Organizer(s): Stephan Ogenstad, Statogen Consulting LLC

ML01 **Statistical Consulting in the Medical Device Area: Using Secondary Data Sources for Development of Clinical Research Studies—✱**Madhu Mazumdar, Weill Cornell Medical College

71 **CC-208**

Section on Statistical Education Roundtable with Coffee (fee event)

Section on Statistical Education

Organizer(s): Peter Westfall, Texas Tech University

ML02 **Fostering Active Learning in Online and Distance Introductory Statistics Courses—✱**Patti B. Collings, Brigham Young University

72 **CC-208**

Section on Statistics and the Environment Roundtable with Coffee (fee event)

Section on Statistics and the Environment

Organizer(s): Andrew B. Lawson, University of South Carolina

ML03 **Get Involved in the Research on Environmental Statistics Going on in RTP—✱**Montserrat Fuentes, North Carolina State University

73 **CC-208**

Section on Statistics in Epidemiology Roundtable with Coffee (fee event)

Section on Statistics in Epidemiology

Organizer(s): Amy H. Herring, The University of North Carolina at Chapel Hill

ML04 **Bayesian Methods for High-Dimensional Data—✱**David Dunson, National Institute of Environmental Health Science

74 **CC-208**

Section on Health Policy Statistics Roundtable with Coffee (fee event)

Section on Health Policy Statistics

Organizer(s): Mary Beth Landrum, Harvard Medical School

ML05 **Multiplicity Issues Related to Composite Endpoint of a Pro Instrument—✱**Mahboob Sobhan, U.S. Food and Drug Administration

75 **CC-208**

Section on Survey Research Methods Roundtable with Coffee (fee event)

Section on Survey Research Methods

Organizer(s): Elaine Zanutto, National Analysts Worldwide Research and Consulting

ML06 **Surveying Cell Phone Numbers in the United States—✱**Paul J. Lavrakas, Consultant

76 **CC-208**

Section on Quality and Productivity Roundtable with Coffee (fee event)

Section on Quality and Productivity

Organizer(s): Donald W. McCormack, Jr., Amgen, Inc.

ML06B **Statistics Groups in Industry: Rise, Decline, and Improvement—✱**Gerald Hahn, GE Corporate Research and Development (retired)

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Special Presentation 8:30 a.m.–10:20 a.m.

77 CC-605

Introductory Overview Lecture: Missing and Coarse Data

ASA, ENAR, IMS, SSC, WNAR, Biopharmaceutical Section, Section on Survey Research Methods, Section on Teaching of Statistics in the Health Sciences, Section on Statistics in Epidemiology

Organizer(s): Russell Lenth, The University of Iowa

Chair(s): Dale Zimmerman, The University of Iowa

8:35 a.m. **An Introduction to Multiple Imputation—**✱Roderick J. Little, The University of Michigan

9:25 a.m. **Analyzing Coarse Data—**Daniel F. Heitjan, University of Pennsylvania

10:15 a.m. **Floor Discussion**

Invited Sessions 8:30 a.m.–10:20 a.m.

78 CC-710

● Current Issues in Molecular Epidemiology: Heterogeneity and High-Dimensionality—Invited

Section on Statistics in Epidemiology, WNAR, Biometrics Section

Organizer(s): Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center; Samiran Sinha, Texas A&M University

Chair(s): Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center

8:35 a.m. **Methods for Incorporating Biological Knowledge into Analysis of Genome-Wide Association Studies—**✱Hongzhe Li, University of Pennsylvania

8:55 a.m. **Probability of Detecting Disease-Associated SNPs in Case-Control, Genome-Wide Association Studies—**✱Mitchell H. Gail, National Cancer Institute; Ruth Pfeiffer, National Cancer Institute; William Wheeler, Information Management Services; David Pee, Information Management Services

9:15 a.m. **Shrinkage Estimators for Robust and Efficient Inference in Haplotype-Based Case-Control Studies—**✱Yi-Hau Chen, Institute of Statistical Science, Academia Sinica; Nilanjan Chatterjee, National Cancer Institute; Raymond Carroll, Texas A&M University

9:35 a.m. **Assessing Gene-Environment Interaction in a Genomewide Association Study—**✱James Gauderman, University of Southern California; Cassandra Murcray, University of Southern California; Juan Lewinger, University of Southern California; Heather Volk, University of Southern California; David Conti, University of Southern California; Dalin Li, University of Southern California

9:55 a.m. Disc: Colin B. Begg, Memorial Sloan-Kettering Cancer Center

10:15 a.m. **Floor Discussion**

79 CC-110

Financial Econometrics—Invited

Business and Economics Statistics Section

Organizer(s): Philippe Soulier, Université Paris X

Chair(s): Philippe Soulier, Université Paris X

8:35 a.m. **Inference for Lévy-Driven, Continuous-Time ARMA Processes—**✱Richard A. Davis, Columbia University; Peter J. Brockwell, Colorado State University; Yu Yang, Colorado State University

9:05 a.m. **Microstructure Noise, Integrated Volatility, and Rounding Error—**✱Mathieu Rosenbaum, University Paris-Est and CREST-ENSAE

9:35 a.m. **A Levy-Driven, Continuous-Time GARCH Process—**✱Alexander Lindner, TU Braunschweig

10:05 a.m. **Floor Discussion**

80 CC-703

▲ In Remembrance of Paul Minton: Statistician, Educator, and Advocate for Statistics—Invited

Memorial, ENAR, Committee on ASA Archives and Historical Materials

Organizer(s): Dwight B. Brock, Westat, Inc.

Chair(s): Dwight B. Brock, Westat, Inc.

8:35 a.m. **Paul Dixon Minton: LSD for Statisticians from a Southern Gentleman—**✱James M. Davenport, Virginia Commonwealth University

9:05 a.m. **The 'Compleat' Statistician: Paul Minton—**✱Fritz Scheuren, The University of Chicago

9:35 a.m. **Development and Growth of Statistical Science at Southern Methodist University—**✱William R. Schucany, Southern Methodist University

10:05 a.m. **Floor Discussion**

81 CC-102

● Disparate Information Fusion—Invited

Section on Statisticians in Defense and National Security, Section on Physical and Engineering Sciences

Organizer(s): Jeffrey L. Solka, Naval Surface Warfare Center Warfare Center Dahlgren Division

Chair(s): Patricia H. Carter, Naval Surface Warfare Center

8:35 a.m. **On the Exploitation of Multiple Disparate Dissimilarities—✱**Carey E. Priebe, Johns Hopkins University; Youngser Park, Johns Hopkins University; Zhiliang Ma, Johns Hopkins University; Adam Cardinal-Stakenas, Johns Hopkins University

9:05 a.m. **Embedding Methods for Disparate Data—✱**Michael W. Trosset, Indiana University; Brent S. Castle, Indiana University

9:35 a.m. **Some Strategies for the Fusion of Imagery and Text—✱**Jeffrey L. Solka, Naval Surface Warfare Center Dahlgren Division; Nick Tucey, Naval Surface Warfare Center Dahlgren Division; Avory Bryant, Naval Surface Warfare Center Dahlgren Division; Ted Clark, Naval Surface Warfare Center Dahlgren Division

10:05 a.m. **Floor Discussion**

82 CC-704

● Robust Methods in Small-Area Estimation—Invited

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section, Section on Health Policy Statistics

Organizer(s): Julie Gershunskaya, Bureau of Labor Statistics

Chair(s): John L. Eltinge, Bureau of Labor Statistics

8:35 a.m. **Examining Sensitivity of Small-Area Inferences to Uncertainty About Sampling Error Variances—✱**William R. Bell, U.S. Census Bureau

9:00 a.m. **Robust Estimation of Monthly Employment Growth Rates—✱**Julie Gershunskaya, Bureau of Labor Statistics; Partha Lahiri, University of Maryland, College Park

9:25 a.m. **Robust Small-Area Estimation Under Unit-Level Models—✱**J. N. K. Rao, Carleton University

9:50 a.m. Disc: Graham Kalton, Westat, Inc.

10:10 a.m. **Floor Discussion**

83 CC-104

High-Dimensional Data Assimilation and the Ensemble Kalman Filter—Invited

Section on Bayesian Statistical Science, Section on Statisticians in Defense and National Security

Organizer(s): Yuguo Chen, University of Illinois at Urbana-Champaign

Chair(s): Yuguo Chen, University of Illinois at Urbana-Champaign

8:35 a.m. **Dynamic Tomography of the Solar Corona with the Localized Ensemble Kalman Filter—✱**Richard A. Frazin, The University of Michigan; Yuguo Chen, University of Illinois at Urbana-Champaign; Mark Butala, University of Illinois; Farzad Kamalabadi, University of Illinois

9:00 a.m. **Using Small Ensembles in High Dimensions: Hierarchical Bayesian Approaches to Adaptive Ensemble Filters—✱**Jeffrey Anderson, National Center for Atmospheric Research

9:25 a.m. **Estimation of High-Dimensional Prior and Posterior Covariance Matrices in Kalman Filter Variants—✱**Reinhard Furrer, Colorado School of Mines; Thomas Bengtsson, Bell Labs, Alcatel-Lucent

9:50 a.m. **Ensemble Sampling—✱**Nicholas Polson, The University of Chicago; Hedibert Lopes, The University of Chicago

10:15 a.m. **Floor Discussion**

84 CC-709

▲ Ridge Regression and Related Topics—Invited

SSC, Section on Physical and Engineering Sciences, IMS

Organizer(s): B.M. Golam Kibria, Florida International University

Chair(s): B.M. Golam Kibria, Florida International University

8:35 a.m. **A New Class of Generalized Bayes Minimax Ridge Regression Estimators—✱**William E. Strawderman, Rutgers, The State University of New Jersey

9:00 a.m. **Developing Ridge Parameters for SUR Model—✱**Ghazi Shukur, Jonkoping University

9:25 a.m. **A Class of Unrestricted Estimators—✱**M. Revan Özkale, Çukurova University

9:50 a.m. Disc: Marvin Gruber, Rochester Institute of Technology

10:10 a.m. **Floor Discussion**

85 CC-603

● Methodological Advances in Testing and Estimation of Gene Expression Differences—Invited

ENAR, Section on Nonparametric Statistics, Biopharmaceutical Section, Section on Statistics in Epidemiology, WNAR, IMS, Biometrics Section

Organizer(s): Dan Nettleton, Iowa State University
Chair(s): Baolin Wu, The University of Minnesota

8:35 a.m. **Estimating FDR Using Nonparametric Deconvolution—**✱Mark van de Wiel, Vu University; Kyung In Kim, Eindhoven University of Technology

9:00 a.m. **Exploring the Information in P-Values for the Analysis and Planning of Multiple-Test Experiments—**David Ruppert, Cornell University; ✱Dan Nettleton, Iowa State University; J.T. Gene Hwang, Cornell University

9:25 a.m. **An Approximate Empirical Bayes Model Selection Approach to Microarray Data Analysis—**✱Harrison Zhou, Yale University; J.T. Gene Hwang, Cornell University; Dan Nettleton, Iowa State University

9:50 a.m. **Multiple Testing on the Directed Acyclic Graph of Gene Ontology—**✱Jelle Goeman, Leiden University Medical Center; Ulrich Mansmann, University of Munich

10:15 a.m. **Floor Discussion**

86 CC-103

● ▲ Political Science, Statistical Science, and Graphics—Invited

Section on Statistical Graphics, Section on Survey Research Methods, Social Statistics Section

Organizer(s): Anton Westveld, University of Nevada, Las Vegas
Chair(s): Anton Westveld, University of Nevada, Las Vegas

8:35 a.m. **A Picture Is Worth a Billion Words: Visualizing Mega-Parameter Models from Giga-Scale Textual Data—**✱Burt Monroe, The Pennsylvania State University

9:05 a.m. **Ceci N'Est Pas Une Carte—**✱Michael D. Ward, University of Washington

9:35 a.m. **Tufte Without Tears—**✱Chris Adolph, University of Washington

10:05 a.m. **Floor Discussion**

87 CC-202

● ▲ Statisticians Impacting Policy and Practice in the Real World: Case Studies from Medicine, Fisheries, and Banking—Invited

Committee on Applied Statisticians, Biopharmaceutical Section, Section on Government Statistics, Social Statistics Section, Scientific and Public Affairs Advisory Committee, Chance

Organizer(s): Paula K. Roberson, University of Arkansas for Medical Sciences
Chair(s): Paula K. Roberson, University of Arkansas for Medical Sciences

8:35 a.m. **Stochastic Modeling of Oyster Demographics in Support of an Ecological Risk Assessment To Address Management of the Chesapeake Bay Fishery—**Mary C. Christman, University of Florida; ✱Thomas Bohrmann, University of Florida

9:00 a.m. **Statisticians Influencing Policy and Practice in Banking—**✱Leonard D. Roseman, Capital One Services, Inc.

9:25 a.m. **Bedside Analysis of Cerebral Autoregulation in Very-Low-Birth-Weight Infants—**✱D. Keith Williams, University of Arkansas for Medical Sciences

9:50 a.m. Disc: Gary Cutter, The University of Alabama at Birmingham

10:10 a.m. **Floor Discussion**

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

88 CC-707

● Applications of Advanced Lifetime Data Analysis—Topic-Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity

Organizer(s): I-Li Lu, The Boeing Compnay
Chair(s): Sabyasachi Basu, The Boeing Company

8:35 a.m. **Advanced Reliability Methods for the Optimization of Aircraft Maintenance Process: Cost Minimization—**✱I-Li Lu, The Boeing Compnay; Ranjan K. Paul, The Boeing Company

8:55 a.m. **Detection of Nuclear Material in Containers Entering US: A Learning Approach for Analyzing Radiation Portal Data—**✱Siddhartha R. Dalal, Rand Corporation

9:15 a.m. **Unified Confidence Bounds for Censored Weibull Data with Covariates—✱**Fritz Scholz, University of Washington

9:35 a.m. **Incorporating Covariates in Flowgraph Models: Applications to Recurrent Event Data—✱**Aparna Huzurbazar, Los Alamos National Laboratory; Brian Williams, Los Alamos National Laboratory

9:55 a.m. **Goodness-of-Fit Testing from the Pareto and the Logistic Distributions—✱**Sneh Gulati, Florida International University; Samuel Shapiro, Florida International University

10:15 a.m. **Floor Discussion**

89 CC-712

● Semi/Nonsupervised Learning and Its Application in Bioscience—Topic-Contributed

Biometrics Section, WNAR

Organizer(s): Samiran Ghosh, Indiana University Purdue University, Indianapolis

Chair(s): Jaydip Mukhopadhyay, Bristol-Myers Squibb Company

8:35 a.m. **Bayesian Nonlinear Classification Methods and Their Applications—✱**Veera Baladandayuthapani, The University of Texas M.D. Anderson Cancer Center

8:55 a.m. **Constrained Clustering in Linear Array with Applications in Genetics and Microbiology—✱**Samiran Ghosh, Indiana University Purdue University, Indianapolis; Jeffrey Townsend, Yale University; Dipak Dey, University of Connecticut

9:15 a.m. **Nonparametric Clustering of Discrete Functional Data—✱**Haiyan Wang, Kansas State University

9:35 a.m. **Cluster-Analytic Health State Modeling—✱**Catherine A. Sugar, University of California, Los Angeles

9:55 a.m. **A Mixture Model Approach in Gene-Gene and Gene-Environmental Interactions—✱**Lang Li, Indiana University

10:15 a.m. **Floor Discussion**

90 CC-608

● Statistical Issues in Medical Device Studies—Topic-Contributed

Biopharmaceutical Section, WNAR, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Gregory Campbell, U.S. Food and Drug Administration; Elizabeth Galle, Boston Scientific Corporation

Chair(s): Gregory Campbell, U.S. Food and Drug Administration

8:35 a.m. **Meta-Analysis of Pedicle Screw in Spinal Fusion—✱**Harry F. Bushar, U.S. Food and Drug Administration; Hollington T.C. Lu, U.S. Food and Drug Administration

8:55 a.m. **Drug Release Behavior in Drug-Eluting Stents—✱**Shanti Gomatam, U.S. Food and Drug Administration

9:15 a.m. **A Permutation Test for a Weighted Measure of Survival Difference with Application to the Stent Thrombosis Examination in Coronary Stenting Trial—✱**Jin Wang, Abbott Vascular

9:35 a.m. **Comparison of Individual Patient-Level and Study-Level Meta-Analyses Using Time-to-Event Analysis in Drug-Eluting Stent Data—✱**Hsini Liao, Boston Scientific Corporation; Yun Lu, Boston Scientific Corporation; Hong Wang, Boston Scientific Corporation

9:55 a.m. **Statistical Issues for Combining Clinical Data from Medical Device Multicenter Trials—✱**Chang S. Lao, U.S. Food and Drug Administration; Harry F. Bushar, U.S. Food and Drug Administration

10:15 a.m. **Floor Discussion**

91 CC-109

Modern Statistical Machine Learning for Complex and High-Dimensional Data—Topic-Contributed

IMS, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Statistical Computing, WNAR

Organizer(s): Yufeng Liu, The University of North Carolina at Chapel Hill

Chair(s): Zhengyuan Zhu, The University of North Carolina at Chapel Hill

8:35 a.m. **Local Quasi-Likelihood Method with a Parametric Guide—✱**Yichao Wu, Princeton University; Jianqing Fan, Princeton University; Yang Feng, Princeton University

8:55 a.m. **Variable Selection in Nonparametric Varying-Coefficient Models for Analysis of Repeated Measurements—✱**Lifeng Wang, University of Pennsylvania; Hongzhe Li, University of Pennsylvania; Jianhua Huang, Texas A&M University

9:15 a.m. **High-Dimensional Variable Selection via Nonnegative Garotte—✱**Jian Zhang, Purdue University

9:35 a.m. **Feature Selection and Grouping for High-Dimensional Classification Using the OSCAR-SVM—✱**Dhruv Sharma, North Carolina State University; Howard Bondell, North Carolina State University; Hao H. Zhang, North Carolina State University

9:55 a.m. **Floor Discussion**

92 CC-602

NCHS Survey Programs—Topic-Contributed

Section on Government Statistics, Section on Survey Research Methods, Social Statistics Section

Organizer(s): Jane F. Gentleman, National Center for Health Statistics

Chair(s): Peter Meyer, National Center for Health Statistics

8:35 a.m. **Using the National Health and Nutrition Examination Survey (NHANES) To Evaluate Health Disparities—✱**Vicki L. Burt, National Center for Health Statistics; Lester R. Curtin, Centers for Disease Control and Prevention; Cindy Zhang, Harris Corporation

8:55 a.m. **Using the National Health Care Surveys To Monitor Disparities in Health Care—✱**Nancy Sonnenfeld, National Center for Health Statistics; Jane E. Sisk, National Center for Health Statistics; John E. Orban, Battelle

9:15 a.m. **Vital Statistics: Vital to the Measurement of Health Disparities—✱**Charles J. Rothwell, National Center for Health Statistics

9:35 a.m. **Using National Health Interview Survey (NHIS) Data and State and Local Area Integrated Telephone Survey (SLAITS) Data To Study Health Disparities—✱**Jane F. Gentleman, National Center for Health Statistics

9:55 a.m. Disc: Diane M. Makuc, National Center for Health Statistics

10:15 a.m. **Floor Discussion**

93 CC-111

▲ Ranked Set Sampling—Topic-Contributed

Section on Nonparametric Statistics, Section on Government Statistics, Section on Survey Research Methods

Organizer(s): Omer Ozturk, The Ohio State University

Chair(s): Jesse Frey, Villanova University

8:35 a.m. **Applications of Ranked Set Sampling to Genetic Studies—✱**Gang Zheng, National Heart, Lung, and Blood Institute; Chen Zehua, National University of Singapore; Kaushik Ghosh, University of Nevada, Las Vegas; Zhaohai Li, The George Washington University

8:55 a.m. **Some Further Generalizations of Ranked Set Sampling—✱**Kaushik Ghosh, University of Nevada, Las Vegas; Ram C. Tiwari, National Cancer Institute

9:15 a.m. **Nonparametric Maximum Likelihood Estimator of Bohn-Wolfe Model—✱**Omer Ozturk, The Ohio State University

9:35 a.m. **Confidence Intervals Estimation of the Location Parameter of the Logistic Distribution Using Ranked Set Sampling—✱**Hassen A. Muttlak, KFUPM

9:55 a.m. **Sequential Unbalanced Ranked Set Sampling—✱**Nader M. Gemayel, The Ohio State University; Douglas Wolfe, The Ohio State University; Elizabeth Stasny, The Ohio State University

10:15 a.m. **Floor Discussion**

94 CC-708

● Value-Added Models for Student Achievements—Topic-Contributed

Social Statistics Section, Section on Survey Research Methods

Organizer(s): Shawn Ni, University of Missouri-Columbia

Chair(s): James R. Chromy, RTI International

8:35 a.m. **Value-Added and Test-Score Ceiling Effects—✱**Cory R. Koedel, University of Missouri-Columbia; Julian R. Betts, University of California, San Diego

8:55 a.m. **The Sensitivity of Teacher Effect Estimates to Decision Rules for Establishing Student-Teacher Links—✱**Matthew Springer, Peabody College of Vanderbilt University

9:15 a.m. **Does a Teacher's Value Added Require Data To Be Missing at Random?—✱**Daniel McCaffrey, RAND Corporation; J. R. Lockwood, RAND Corporation

9:35 a.m. **Estimating Teacher Effects from Longitudinal Data Without Assuming Vertical Scaling—**✱Louis T. Mariano, RAND Corporation; Daniel McCaffrey, RAND Corporation; J. R. Lockwood, RAND Corporation

9:55 a.m. **Estimating Dynamic Panel Data Models with Measurement Errors—**✱Shawn Ni, University of Missouri-Columbia; Michael Podgursky, University of Missouri-Columbia

10:15 a.m. **Floor Discussion**

95 CC-101

Student Paper Competition: Bayesian Methods—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): David A. van Dyk, University of California, Irvine
Chair(s): Dipak Dey, University of Connecticut

8:35 a.m. **A Bayesian Hierarchical Model with Curve Selection for Functional Data Classification—**✱Hongxiao Zhu, Rice University; Marina Vannucci, Rice University; Dennis D. Cox, Rice University

8:55 a.m. **Asymptotic Comparisons of Predictive Densities for Dependent Observations—**✱Xuanyao He, The University of North Carolina at Chapel Hill; Richard L. Smith, The University of North Carolina at Chapel Hill; Zhengyuan Zhu, The University of North Carolina at Chapel Hill

9:15 a.m. **On Bayesian Inference for Generalized Multivariate Gamma Distributions—**✱Sourish Das, University of Connecticut; Dipak Dey, University of Connecticut

9:35 a.m. **Efficiently Estimating Personal Network Size—**✱Tyler H. McCormick, Columbia University; Matthew Salganik, Princeton University; Tian Zheng, Columbia University

9:55 a.m. **Another Look at Macroeconomic Forecasting: Aggregation vs. Disaggregation—**✱Kun Ho Kim, The University of Chicago

10:15 a.m. **Floor Discussion**

Topic-Contributed Panel 8:30 a.m.–10:20 a.m.

96 CC-106

Best Practices in Statistics Training: Lessons Learned from VIGRE Programs—Topic-Contributed

Section on Statistical Education

Organizer(s): Deborah Nolan, University of California, Berkeley
Chair(s): Robert Smidt, California Polytechnic State University

Panelists: ✱Tilmann Gneiting, University of Washington
✱Susan Holmes, Stanford University
✱Robert Kass, Carnegie Mellon University
✱Sastry Pantula, North Carolina State University
✱John Rice, University of California, Berkeley

10:15 a.m. **Floor Discussion**

Contributed Sessions 8:30 a.m.–10:20 a.m.

97 CC-702

Statistical Disclosure Control—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Brian J. Meekins, Bureau of Labor Statistics

8:35 a.m. **Translating Disclosure Risk of Geographic Units to Survey Respondents: A Hierarchical Assessment of Contextual Data—**✱Kristine M. Witkowski, The University of Michigan

8:50 a.m. **A Multiple Imputation Approach to Disclosure Limitation for High-Age Individuals in Longitudinal Studies—**✱Di An, Merck & Co., Inc.; Roderick J. Little, The University of Michigan

9:05 a.m. **The Effect of Measurement Error and Under-Coverage Error on Disclosure Risk Assessments—**✱Mandi Yu, The University of Michigan; Trivellore Raghunathan, The University of Michigan

9:20 a.m. **Combining Statistical Disclosure Limitation Methods To Create Synthetic Data—**✱Jennifer C. Huckett, Iowa State University; Michael D. Larsen, Iowa State University

9:35 a.m. **Achieving Analytic Potential While Protecting Data Confidentiality—**Fritz Scheuren, The University of Chicago; ✱James Sears, U.S. Social Security Administration

9:50 a.m. **A Unified Theory of Randomized Response Surveys of Binary Characteristics—✱**Tapan K. Nayak, The George Washington University

10:05 a.m. **Randomized Response Model in a Matched Pair Study—✱**Chien-Hua Wu, Chung-Yuan Christian University

98 CC-601

● Nonresponse Bias Analysis—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Meena Khare, National Center for Health Statistics

8:35 a.m. **Nonresponse Bias in the American Time Use Survey—✱**Phawn Letourneau, U.S. Census Bureau; Andrew Zbikowski, U.S. Census Bureau

8:50 a.m. **Using a Large-Scale Field Study To Estimate Nonresponse and Noncoverage Biases in an RDD Survey—✱**Wendy VanDeKerckhove, Westat, Inc.; Jill Montaquila, Westat, Inc.; J. Michael Brick, Westat, Inc.

9:05 a.m. **A Study of SES Bias and Nonresponse in a Large-Scale Household Survey—✱**Orlaith Burke, University College Dublin; Patrick E. Murphy, University College Dublin; Richard Sinnott, University College Dublin

9:20 a.m. **Identifying Nonresponse Bias Using a Survey Subset in Follow-Up—✱**Harper Gordek, RTI International; Patrick Chen, RTI International; Judith Lynch, RTI International; Thomas Morgan, RTI International

9:35 a.m. **Sensitivity Analysis of Nonresponse Bias in the Current Population Survey—✱**John Dixon, Bureau of Labor Statistics

9:50 a.m. **Proxy Pattern-Mixture Analysis for Survey Nonresponse—✱**Rebecca Andridge, The University of Michigan; Roderick J. Little, The University of Michigan

10:05 a.m. **Analyses of Nonresponse Bias Resulting from Failure To Obtain Consent To Contact Vaccination Providers and Provider Nonresponse in the National Immunization Survey—✱**Benjamin Skalland, National Opinion Research Center; Robert Montgomery, National Opinion Research Center; Philip J. Smith, Centers for Disease Control and Prevention

99 CC-701

Environmental Statistics—Contributed

Section on Statistics and the Environment, Section on Risk Analysis

Chair(s): Robert L. James, Rho, Inc.

8:35 a.m. **Wind Forecasting Models and Loss Function—✱**Amanda S. Hering, Texas A&M University; Marc G. Genton, University of Geneva

8:50 a.m. **Probabilistic Wind Forecasting Using Bayesian Model Averaging—✱**J. McLean Sloughter, University of Washington

9:05 a.m. **Test of Homogeneity in Some Cyclic Predator-Prey Systems—✱**Severien Nkurunziza, University of Windsor

9:20 a.m. **Introducing the S-Value: An Exploratory Tool for Spatial Dependence on a Lattice—✱**Petrutza Caragea, Iowa State University; Mark Kaiser, Iowa State University

9:35 a.m. **Adapting a Local Indicator of Spatial Association To Identify Hot Spots in Traffic Safety—✱**Elke A. Moons, Hasselt University; Tom Brijs, Hasselt University; Geert Wets, Hasselt University

9:50 a.m. **Mixture Methods for the Analysis of Flood Frequency Distributions—✱**John Grego, University of South Carolina; Philip Yates, California State Polytechnic University, Pomona

10:05 a.m. **Floor Discussion**

100 CC-108

▲ Statistics as Liberal Arts, Communication, Critical Thinking, and Outreach—Contributed

Section on Statistical Education

Chair(s): Erin Blankenship, University of Nebraska-Lincoln

8:35 a.m. **Teaching Statistics as Part of a Learning Community—✱**Yvonne M. Zubovic, Indiana University Purdue University, Fort Wayne

8:50 a.m. **SiSSYS: Reflections from a Capstone Course Using Sports Data—✱**Michael Schuckers, St. Lawrence University; Robin Lock, St. Lawrence University; Travis Atkinson, St. Lawrence University

9:05 a.m. **Social Justice, Gender Equity, and Service Learning in Statistics Education: Lessons Learned from the DOE-Funded Project ACE—✱**Lawrence M. Lesser, The University of Texas at El Paso

9:20 a.m. **Interesting Examples of the Use and Misuse of Statistics from the Law—✱**Harry J. Norton, Carolinas Medical Center

9:35 a.m. **Consulting Activities and Introductory Course Topics: The Chicken, the Egg, and the Chef?—✱**Jim Bentley, University of Redlands

9:50 a.m. **The 'Parknership' Research Program Between the Florida Park Service and Florida Atlantic University's Honors College—✱**Stephanie Fitchett, University of Northern Colorado; Hank Smith, Florida Atlantic University/ Florida Park Service

10:05 a.m. **Floor Discussion**

101 CC-105

Nonparametrics and Functional Data Analysis—Contributed

Section on Statistical Computing, Section on Nonparametric Statistics, IMS

Chair(s): Shunpu Zhang, University of Nebraska-Lincoln

8:35 a.m. **Functional Component Pursuit for Small N, Large P Data—**Yoonkyung Lee, The Ohio State University; ✱Yonggang Yao, The Ohio State University

8:50 a.m. **Large-Scale Clustering of Dependent Curves—✱**Huijing Jiang, Georgia Institute of Technology; Nicoleta Serban, Georgia Institute of Technology

9:05 a.m. **Polynomial Spline Independent Component Analysis with Application to fMRI Data—✱**Atsushi Kawaguchi, The University of North Carolina at Chapel Hill; Young K. Truong, The University of North Carolina at Chapel Hill; Xuemei Huang, The University of North Carolina at Chapel Hill

9:20 a.m. **A Spatial Spline Algorithm and an Application to Climate Waves Over the United States—✱**Derek D. Cyr, University at Albany; Igor G. Zurbenko, University at Albany

9:35 a.m. **Nonparametric Density Deconvolution by Weighted Kernel Estimators—✱**Berwin A. Turlach, National University of Singapore; Martin L. Hazelton, Massey University

9:50 a.m. **On the Change-Point Regression by Local PTh-Order Polynomial Kernel Estimators—✱**Bo Zhang, The University of Minnesota; Zhihua Su, The University of Minnesota; Peihua Qiu, The University of Minnesota

10:05 a.m. **Statistical Inference for Dynamic Models with the Generalized Profiling Method—✱**Jiguo Cao, Simon Fraser University

102 CC-705

Recent Developments in Control Charts and Profile Monitoring—Contributed

Section on Quality and Productivity, Section on Physical and Engineering Sciences

Chair(s): Willis Jensen, W.L. Gore & Associates

8:35 a.m. **A Distribution-Free, Shewhart-Type Quality Control Chart for Detecting a General Change in a Process—✱**Saad T. Bakir, Alabama State University

8:50 a.m. **Profile Monitoring for Attributes Data—✱**Arthur Yeh, Bowling Green State University

9:05 a.m. **Monitoring Profile Data: A Likelihood Ratio Test Approach—✱**Junjia Zhu, The Pennsylvania State University

9:20 a.m. **Diagnostics After a Signal from Control Charts in a Normal Process—✱**Jianying Lou, Virginia Polytechnic Institute and State University; Marion R. Reynolds, Jr., Virginia Polytechnic Institute and State University; Dong-Yun Kim, Virginia Polytechnic Institute and State University

9:35 a.m. **CUSUM Charts with Censored Ordinal Categorical Data—✱**Denisa A. Olteanu, Virginia Polytechnic Institute and State University

9:50 a.m. **Control Charts with Missing Observations—✱**Sara R. Wilson, Virginia Polytechnic Institute and State University; Marion R. Reynolds, Jr., Virginia Polytechnic Institute and State University

10:05 a.m. **A Residual-Based Hotelling's T^2 Chart—**Soren Bisgaard, University of Massachusetts Amherst; ✱Xuan Huang, University of Massachusetts Amherst

103 CC-113

Nonparametric Identification of Densities, Features, Mixtures, Shapes, and Images—Contributed

Section on Nonparametric Statistics, IMS

Chair(s): Shojaeddin Chenouri, University of Waterloo

8:35 a.m. **Analysis of the Shape of Unimodal Densities with Nonparametric Density Estimation—✱**Jussi Klemela, University of Oulu

8:50 a.m. **A Nonparametric Kurtosis Ordering for Multivariate Distributions—✱**Jin Wang, Northern Arizona University; Weihua Zhou, The University of North Carolina, Charlotte

9:05 a.m. **Nonparametric Estimation in Multivariate Mixture Models—✱**Tatiana Benaglia, The Pennsylvania State University; David Hunter, The Pennsyvania State University; Didier Chauveau, Université d'Orléans, France

9:20 a.m. **L2 Estimation of Mixture Complexity—✱**Umashanger Thayasivam, The University of Georgia; T. N. Sriram, The University of Georgia

9:35 a.m. **Probabilistic Watermark Detection in Movies—**Sam Behseta, California State University, Bakersfield; Charles Lam, California State University, Bakersfield; ✱Robert Webb, California Polytechnic State University

9:50 a.m. **Density Estimation Through Kernel Estimation-Based ECF—✱**Mawia Kaddoura, The Petroleum Institute; Michael Conerly, The University of Alabama

10:05 p.m. **Floor Discussion**

104 CC-706

Model Selection, Matching, and Meta-Analysis—Contributed

Section on Health Policy Statistics, Biopharmaceutical Section, Section on Statistics in Epidemiology

Chair(s): Min Annie Lin, Duke University School of Medicine

8:35 a.m. **Use of Propensities with Unmeasured Confounders—✱**David Nelson, Minneapolis VA Medical Center; Siamak Noorbaloochi, VAMC and University of Minnesota

8:50 a.m. **Bayesian Models for the Meta-Analysis of Sparse Tables—✱**Eloise Kaizar, The Ohio State University; Joel Greenhouse, Carnegie Mellon University; Howard Seltman, Carnegie Mellon University

9:05 a.m. **The Essential Role of Pair Matching in Cluster-Randomized Experiments, with Application to the Mexican Universal Health Insurance Evaluation—✱**Kosuke Imai, Princeton University; Gary King, Harvard University; Clayton Nall, Harvard University

9:20 a.m. **Model Selection for Individualized Treatment Rules—✱**Min Qian, The University of Michigan; Susan A. Murphy, The University of Michigan

9:35 a.m. **Model Comparison for Association Between Hospital Performance and Hospital Characteristics: Proportional or Hierarchical Binary Outcomes—✱**Jacob J.H. Cheng, Maryland Hospital Association; Carlos F. Alzola, Data Insights; Nikolas Matthes, Maryland Hospital Association

9:50 a.m. **Longitudinal Data with Follow-Up Truncated by Death: Communicating a Match Between Analysis Method and Research Aims—✱**Laura L. Johnson, National Center for Complementary and Alternative Medicine; Brenda Kurland, Fred Hutchinson Cancer Research Center; Paula Diehr, University of Washington

10:05 a.m. **Floor Discussion**

105 CC-107

Modeling, Estimation, and Testing for Stochastic Processes—Contributed

IMS

Chair(s): Andrew Golightly, Newcastle University

8:35 a.m. **Statistical Tests for the Detection of a Self-Regulation Property for Poisson-Type Point Processes—✱**Franz Streit, University of Geneva

8:50 a.m. **Finding the Recurrent Sets for a Markov Chain Possessing Monotonically Decreasing Nonhomogeneity—✱**Zach Dietz, Hamilton College

9:05 a.m. **Multivariate Stationary Processes with Increments—✱**Chunfeng Huang, Indiana University; Tailen Hsing, The University of Michigan

9:20 a.m. **Finite-Sample Properties of a System Reliability Estimator Under Imperfect Debugging—✱**Marcus Agustin, Southern Illinois University Edwardsville; Zenia Agustin, Southern Illinois University Edwardsville

9:35 a.m. **Nonparametric Covariogram Estimation Based on Irregularly Spaced Spatial Data—✱**Soutir Bandyopadhyay, Texas A&M University; Soumendra N. Lahiri, Texas A&M University

9:50 a.m. **Nonexplosion of a Class of Semilinear Partial Differential Equations via Branching Particle Representations—✱**Santanu Chakraborty, University of Texas-Pan American; Jose A. Lopez Mimbela, Centro de Investigacion en Matematicas

10:05 a.m. **Floor Discussion**

106 CC-112

Bayesian Methods; Ridge Regression—Contributed

Business and Economics Statistics Section, Section on Bayesian Statistical Science

Chair(s): Nalini Ravishanker, University of Connecticut

8:35 a.m. **A Bayesian Approach to Nonparametric Monotone Function Estimation—✱**Tom Shively, The University of Texas at Austin; Tom Sager, The University of Texas at Austin

8:50 a.m. **Score-Based Portfolio Strategy in Bayesian View—✱**Timothy H. Lee, CRM

9:05 a.m. **Bayesian Inference in the Time-Varying Cointegration Model—**Gary Koop, University of Strathclyde; ✱Roberto Leon-Gonzalez, GRIPS; Rodney Strachan, University of Strathclyde

9:20 a.m. **Generalized Maximum Entropy Estimation of the Parameters of Production and Demand Functions in the Framework of CGE Models—✱**Tiziana Laureti, University of Tuscia; Guido Ferrari, University of Florence; Luca Secondi, University of Florence

9:35 a.m. **Stochastic Volatility Model with Regime Switching—✱**Lu Zhang, The Pennsylvania State University; John Liechty, The Pennsylvania State University

9:50 a.m. **Floor Discussion**

107 CC-606

Longitudinal Data Analysis I—Contributed

Biometrics Section, Biopharmaceutical Section, Section on Statistics in Epidemiology, Section on Survey Research Methods

Chair(s): Zhangsheng Yu, The Ohio State University

8:35 a.m. **Canonical Correlation Analysis of Longitudinal Data—✱**Dayanand N. Naik, Old Dominion University; Jayesh Srivastava, High Point Insurance

8:50 a.m. **Inverse Regression from Longitudinal Data—✱**Geoffrey Jones, Massey University

9:05 a.m. **State Space Representation of an Autoregressive Linear Mixed Effects Model for the Analysis of Longitudinal Data—✱**Ikuko Funatogawa, Teikyo University School of Medicine; Takashi Funatogawa, Chugai Pharmaceutical Co. LTD.

9:20 a.m. **Estimation of Disease Progression in Amyotrophic Lateral Sclerosis Using Muscle Electrical Properties—✱**Catherine Stamoulis, Harvard School of Public Health; Rebecca Betensky, Harvard University; Seward Rutkove, Harvard Medical School

9:35 a.m. **Comparison Between Analysis of Variance and Spectral Decomposition in the Mixed-Effects Models—✱**Mixia Wu, National Institute of Child Health and Human Development; Kai Fun Yu, National Institutes of Health; Aiyi Liu, National Institute of Child Health and Human Development

9:50 a.m. **Marginalized Transition Models for Longitudinal Count Data—✱**Keunbaik Lee, Louisiana State University Health Sciences Center; Michael Daniels, University of Florida; Yongsung Joo, University of Florida

10:05 a.m. **Floor Discussion**

108 CC-610-612

Pathway Analysis Methods in Genomics—Contributed

Biometrics Section, IMS

Chair(s): Xin He, The Ohio State University

8:35 a.m. **Exploring Liquid Association in Non-Gaussian Multivariate Distributions—✱**Yen-Yi Ho, Johns Hopkins University; Leslie Cope, Johns Hopkins University; Giovanni Parmigiani, Johns Hopkins University

8:50 a.m. **Concordant Association with Multiple Phenotypes Analysis of Microarray Gene Expression Data—✱**Stanley B. Pounds, St. Jude Children's Research Hospital

9:05 a.m. **Combining P-Values on Testing the Significance of Groups of Genes—✱**Hongmei Jiang, Northwestern University

9:20 a.m. **Dynamic Weighted Clustering with Noise Set—✱**Yijing Shen, University of California, Los Angeles; Wei Sun, The University of North Carolina at Chapel Hill; Kerchau Li, University of California, Los Angeles

9:35 a.m. **Identify Relevant Genes for Classification of Microarray Samples Using Partial Least Squares—✱**Ying Chen, University of California, Davis

9:50 a.m. **A Hidden Markov Model Approach to Testing Multiple Hypotheses on a Directed Acyclic Graph—✱**Kun Liang, Iowa State University; Dan Nettleton, Iowa State University

10:05 a.m. **Floor Discussion**

109 CC-607

● Statistical Inference in Clinical Trials—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Amy Ko, Merck & Co., Inc.

8:35 a.m. **Testing the Assumption in Several Two-Sided Amalgamation-Based Tests for Dose Response—✱**Arthur Roth, Pfizer, Inc.

8:50 a.m. **Preference-Based Estimates of Treatment Efficacy Among Compliant Patients in a Randomized Clinical Trial with a Continuous Outcome—✱**Afisi S. Ismaila, McMaster University; Stephen Walter, McMaster University

9:05 a.m. **Analysis of Skewed Distribution: Transformation or Robust Regression—✱**Hongwei Wang, Merck Research Laboratories; Arvind K. Shah, Merck Research Laboratories

9:20 a.m. **Statistical Power Simulations on the Choice of Baselines in Clinical Trials—✱**Din Chen, South Dakota State University; Pinggao Zhang, Global Biometrics

9:35 a.m. **Identification of Promising Subgroups in the Retrospective Analysis of Clinical Trials—✱**Ilya Lipkovich, Eli Lilly and Company; Alex Dmitrienko, Eli Lilly and Company; Eric Su, Eli Lilly and Company; Jonathan Denne, Eli Lilly and Company; Gregory Enas, Eli Lilly and Company

9:50 a.m. **Identifying Endpoints and Analysis Methodologies in the Assessment of Treatment Effects on Nocturia Episodes in Patients with Overactive Bladders—**Xiaojiang Zhan, Merck & Co., Inc.; ✱Liang Chen, Merck & Co., Inc.; Weili He, Merck Research Laboratories

10:05 a.m. **Floor Discussion**

110 CC-711

● ▲ Nonlinear Models in Drug Development—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): J. Brooke Marshall, Merck Research Laboratories

8:35 a.m. **Clinical Statisticians' New Challenge: Pharmacokinetic/Pharmacodynamic Modeling and Simulation—✱**Kuenhi Tsai, Merck & Co., Inc.; Alan Hartford, Merck & Co., Inc.; Huafeng Zhou, Merck & Co., Inc.; Michael Hesney, Merck & Co., Inc.

8:50 a.m. **On the Use and Challenge of Emax Model for Assessing Drug Interaction in Combination Studies—✱**Diane D. Liu, The University of Texas M.D. Anderson Cancer Center; Heather Y. Lin, The University of Texas M.D. Anderson Cancer Center; J. Jack Lee, The University of Texas M.D. Anderson Cancer Center

9:05 a.m. **An Algorithm for Warfarin Dosing Using Nonlinear Mixed Effects Models—✱**Kerrie Nelson, Massachusetts General Hospital; David Schoenfeld, Massachusetts General Hospital

9:20 a.m. **Using Genetic Algorithms To Find Starting Values for Fitting Nonlinear Models—✱**Haiyuan Zhu, Merck Research Laboratories

9:35 a.m. **Functional Data Analysis for ECG T-Wave Modeling—✱**Yingchun Zhou, National Institute of Statistical Sciences; Nell Sedransk, National Institute of Statistical Sciences

9:50 a.m. **A New Approach for Finding Global Minima in Nonlinear Least Squares Regression—✱**Leonid A. Khinkis, Canisius College; Milburn E. Crotzer, Canisius College

10:05 a.m. **Floor Discussion**

111 CC-604

● Model-Fitting—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Pang Du, Virginia Polytechnic Institute and State University

8:35 a.m. **Finding Factors Influencing Risk: Comparing Variable Selection Methods Applied to Logistic Regression Models of Cases and Controls—✱**Michael D. Swartz, The University of Texas M.D. Anderson Cancer Center; Robert K. Yu, The University of Texas M.D. Anderson Cancer Center; Sanjay Shete, The University of Texas M.D. Anderson Cancer Center

8:50 a.m. **Bayesian Analysis of Covariate Profiles—✱**John T. Molitor, Imperial College, London; Michail Papathomas, Imperial College, London; Sylvia Richardson, Imperial College, London

9:05 a.m. **Variable Selection in Linear Mixed Model: A New Algorithm Incorporating Investigator Preference and Nonmissingness of Data—✱**Abu Minhajuddin, The University of Texas Southwestern Medical Center; Hrishikesh Chakraborty, RTI International

9:20 a.m. **'Treatment - Outcome Complex' and Analysis of Observational Data—✱**Lev S. Sverdlov, Schering-Plough Research Institute

9:35 a.m. **Reducing Bias in Observational Studies Using Propensity Score Methods—✱**Binod Neupane, McMaster University; Lehana Thabane, McMaster University; Mark Loeb, McMaster University

9:50 a.m. **Length Optimal Interval Estimators for Multicenter Trials—✱**Peng Zhang, Harvard University; Hajime Uno, Harvard University; Lee-Jen Wei, Harvard University

10:05 a.m. **Stochastic Dynamics and Dynamical Systems in Biosystem Modeling—✱**Huitian Lu, South Dakota State University; Jin Kai, Texas A&M University, Kingsville; Amy Wang, Golden Computing Technology Solutions

Invited Poster Presentations 8:30 a.m.–10:20 a.m.

112 CC-F Lobby

Invited Poster Presentations: Class Projects—Invited

Section on Statistical Education

Organizer(s): Phyllis J. Curtiss, Grand Valley State University

Chair(s): John Castelloe, SAS Institute Inc.

Class Projects

01 **Service Learning Project: Connecting Student Needs with the Community—**Neal Rogness, Grand Valley State University; ✱Paul Stephenson, Grand Valley State University

02 **Class Project: Service-Learning in Undergraduate Survey Sampling—✱**John Gabrosek, Grand Valley State University

03 **Class Project: Measuring Student Perceptions of the General Education Program—✱**Whitney B. Miner, Grand Valley State University; Phyllis J. Curtiss, Grand Valley State University

Longtime Member Reception

BY INVITATION ONLY

Monday, August 4

6:30 p.m. – 7:30 p.m.

Hyatt Regency Denver, Mineral Hall A

If you joined the ASA 35 or more years ago, the American Statistical Association would like to thank you for your longtime support.

Please join us for a reception in your honor.

Sponsored by the ASA Membership Retention and Recruitment Committee

Contributed Poster Presentations 8:30 a.m.–10:20 a.m.

113 CC-F Lobby

Contributed Poster Presentations—Contributed

Section on Bayesian Statistical Science, Section on Physical and Engineering Sciences, Section on Statistical Consulting, Section on Statistical Education, Section on Statistics in Epidemiology, Section on Teaching Statistics in the Health Sciences

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Spatial statistics, spatio-temporal modeling

04 **Bayesian Modeling of Wind Fields Using Surface Data Collected Over Land—✱**Margaret Short, University of Alaska Fairbanks

05 **Impact of a Regional Trend on the Estimation of Unconventional Natural Gas Resources Using Local Nonparametric Prediction Models—✱**Timothy C. Coburn, Abilene Christian University; Emil D. Attanasi, U.S. Geological Survey; Phillip A. Freeman, U.S. Geological Survey

06 **Geographic Variability of Asthma Prevalence in Inner City Schools: Chicago Initiative To Raise Asthma Health Equity—✱**Laura M. Curtis, Northwestern University; Xingyou Zhang, The Robert Grahm Center; Ruchi S. Gupta, Northwestern University & Children's Memorial Hospital; Kevin B. Weiss, Northwestern University

Statistical consulting

07 **Effective Collaboration: Are Junior Faculty Knowledgeable About How To Work with Statisticians?—✱**Brianna C. Bright, University of Oklahoma Health Sciences Center

08 **Tips for Providing Statistical Consultation to Medical Trainees—✱**Christina A. Haines, University of Alberta; Rhonda Rosychuk, University of Alberta

09 **Projects STATCOM UHasselt—**Amparo Y. Castro, Hasselt University; ✱Herbert Thijs, Hasselt University; Daniel Martinez, Hasselt University; Vishva Danthurebandara, Hasselt University

10 **STATCOM at Chicago: Universities Working Together To Serve the Community—✱**Meredith Wascher, DePaul University; Bart Phillips, E-B Research, LLC; Diya Zhang, Northwestern University

11 **Seven Years of STATCOM at Purdue University: Managing a Growing Number of Student Volunteers—**Douglas Baumann, STATCOM at Purdue; ✱Andrea Rau, Purdue University

12 **STATCOM at Iowa State: Experiences and Projects in the First Year—✱**David Rockoff, Iowa State University; Jennifer C. Huckett, Iowa State University; Anna Peterson, Iowa State University; Jessica Chapman, Iowa State University; Nicholas Beyler, Iowa State University; Jonathan Hobbs, Iowa State University; Timothy Bancroft, Iowa State University

13 **STATCOM at the University of Washington: Implementing a Peer Evaluation System for a Local Fire Department—✱**David W. Lockhart, University of Washington; Julian Wolfson, University of Washington; Annette Ghee, University of Washington; Rori Rohlfs, University of Washington

14 **STATCOM at University of Michigan: Making a Michigan Difference - A Promising Beginning—✱**Maria Larkina, The University of Michigan

Statistical education, teaching, and training

15 **Classroom Use of R: Coverage Probabilities of Poisson Interval Estimates—✱**Lioudmila Belan, California State University, East Bay; Bruce Trumbo, California State University, East Bay; Eric Suess, California State University, East Bay

16 **Real Data with Real Questions: Computer Labs for Introductory and Intermediate Statistics—✱**Rosemary Roberts, Bowdoin College; Ann Cannon, Cornell College

17 **Teaching Introductory Statistics with Simulations in JMP Statistical Discovery Software—✱**William M. Duckworth, Creighton University; Amy Froelich, Iowa State University; Mark Bailey, SAS Institute Inc.; Wayne Levin, Predictum Management Sciences, Inc.

18 **Teaching Undergraduate Statistics as a Capstone for Mathematics Majors—✱**Jeremy Nadolski, Benedictine University

19 **A First Step to Understanding the Difficulty in Teaching Sampling Distributions, Sampling Error, and Statistical Inference—✱**S. David Kriska, The Ohio State University; Mark C. Fulcomer, Richard Stockton College of New Jersey; Marcia M. Sass, University of Medicine and Dentistry of New Jersey

20 **Teaching Statistical Consulting—✱**Lynn Eudey, California State University, East Bay

21 **A Hunt for Better Features in Teaching an Introductory Statistics Class—✱**Julia A. Norton, California State University, East Bay; Yan Yan Zhou, California State University, East Bay; Farnaz Ganjeizadeh, California State University, East Bay

22 **Your Next Teaching Vehicle May Be a Hybrid: Getting More Mileage from the MBA Quant Course—✱**Patrick S. Noonan, Emory University

23 **Using the GAISE Guidelines in a Graduate Biomedical Statistical Methods Class—✱**Emily H. Sheldon, Virginia Commonwealth University; Jessica M. Ketchum, Virginia Commonwealth University; Al M. Best, Virginia Commonwealth University

24 **A Visual Model for the Variance and Standard Deviation—✱**James B. Orris, Butler University

25 **A Probabilistic Look at a Calculus Problem—✱**Lewis VanBrackle, Kennesaw State University

26 **Two-Sample Considerations: From AP Question to Student/Faculty Research—✱**Ken Constantine, Taylor University

27 **Random Structures: A Course Bridging Statistics and Mathematics Programs in the Liberal Arts—✱**Brian D. Jones, Kenyon College

28 **Active Learning: Bayesian Statistics Modules You Can Include in Your Frequentist First or Second Statistics Course—✱**Linda B. Collins, The University of Chicago

29 **Classroom Illustrations of the Construction of Discrete Sampling Distributions—✱**Mark C. Fulcomer, Richard Stockton College of New Jersey; S. David Kriska, The Ohio State University; Marcia M. Sass, University of Medicine and Dentistry of New Jersey; Maritza Jauregui, Richard Stockton College of New Jersey

30 **Incorporating Medical Literature in the Statistics Classroom: From Initial Idea to Execution—✱**Kirk Anderson, Grand Valley State University

31 **A Synergistic Effort To Recruit Future Biostatisticians in Arkansas High Schools—✱**Songthip Ounpraseuth, University of Arkansas for Medical Sciences; Page C. Moore, University of Arkansas for Medical Sciences

32 **Recruiting Undergraduate Statistics Majors and Minors—✱**Phyllis J. Curtiss, Grand Valley State University; Paul Stephenson, Grand Valley State University

QC, operation research, risk assessment

33 **Analysis of Sampled Fishbone Diagrams for Completeness and Size of a Second Stage—✱**Frank Matejcik, South Dakota School of Mines & Technology

GfK

10:15 a.m.–10:45 a.m.
CC-Various Locations
JSM Coffee Break Sponsored by GfK

Invited Sessions 10:30 a.m.–12:20 p.m.

114 CC-703

JASA Theory and Methods Invited Paper Session—Invited

JASA, Theory and Methods, Section on Nonparametric Statistics, WNAR

Organizer(s): Walter W. Piegorsch, The University of Arizona; Stephen L. Portnoy, University of Illinois
Chair(s): Stephen L. Portnoy, University of Illinois

10:35 a.m. **The Nested Dirichlet Process—✱**Alan Gelfand, Duke University; Abel Rodriguez, University of California, Santa Clara; David Dunson, National Institute of Environmental Health Science

11:20 a.m. Disc: Wesley O. Johnson, University of California, Irvine

11:35 a.m. Disc: Peter Mueller, The University of Texas M.D. Anderson Cancer Center

11:50 a.m. Rejoinder: Alan Gelfand, Duke University

12:05 p.m. **Floor Discussion**

115 CC-709

● Warranty and Other Field Reliability Data—Invited

Section on Physical and Engineering Sciences, Section on Quality and Productivity, SSC

Organizer(s): Luis A. Escobar, Louisiana State University
Chair(s): Luis A. Escobar, Louisiana State University

10:35 a.m. **Field Reliability Improvement Through Analysis and Modeling of Sensor-Based Data: Opportunities and Challenges—✱**Necip Doganaksoy, General Electric

11:00 a.m. **Using Experts' Knowledge To Forecast Warranty Claims—✱**Marc Fredette, HEC Montreal

11:25 a.m. **Warranty Analysis for Cost Reduction and Customer Satisfaction—✱**Jeffrey A. Robinson, General Motors R&D Center

11:50 a.m. **Using Life Data To Assess the Risk of Product Failure—✱**William Q. Meeker, Iowa State University

12:15 p.m. **Floor Discussion**

116 CC-710

● Health/Biological Imprint of Climate and Atmospherics—Invited

Section on Statistics and the Environment

Organizer(s): Montserrat Fuentes, North Carolina State University
Chair(s): Sudipto Banerjee, The University of Minnesota

10:35 a.m. **Spatio-Temporal Threshold Models for Relating UV Exposures and Skin Cancer in the Central United States—**Laura A. Hatfield, The University of Minnesota; ✱Bradley P. Carlin, The University of Minnesota

10:55 a.m. **The Association Between Short-Term Exposure to Ozone and Risk of Mortality in the United States—✱**Michelle L. Bell, Yale University; Roger D. Peng, Johns Hopkins Bloomberg School of Public Health; Aidan McDermott, Johns Hopkins Bloomberg School of Public Health; Scott L. Zeger, Johns Hopkins Bloomberg School of Public Health; Jonathan M. Samet, Johns Hopkins Bloomberg School of Public Health; Francesca Dominici, Johns Hopkins University

11:15 a.m. **Health Impacts Under Heat Waves—✱**Bo Li, National Center for Atmospheric Research; Doug Nychka, National Center of Atmospheric Research

11:35 a.m. **Health Effects of Chemical Constituents and Sources of Fine Particulate Matter—✱**Francesca Dominici, Johns Hopkins University

11:55 a.m. Disc: Montserrat Fuentes, North Carolina State University

12:15 p.m. **Floor Discussion**

117 CC-603

Variable Selection with High-Dimensional Data—Invited

WNAR, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Statistics in Epidemiology, IMS, Biometrics Section

Organizer(s): Gareth M. James, University of Southern California
Chair(s): Ji Zhu, The University of Michigan

10:35 a.m. **Challenge of Dimensionality in Model Selection and Classification—✱**Jianqing Fan, Princeton University; Yingying Fan, Harvard University

11:05 a.m. **Variable Inclusion and Shrinkage Algorithms—✱**Peter Radchenko, University of Southern California; Gareth M. James, University of Southern California

11:35 a.m. **Fast Regularization Paths—✱**Trevor Hastie, Stanford University

12:05 p.m. **Floor Discussion**

118 CC-706

● Bayesian Methods for Diagnostic Test Meta-Analysis—Invited

Section on Health Policy Statistics, Section on Bayesian Statistical Science, Section on Statistics in Epidemiology

Organizer(s): Anirban Basu, The University of Chicago
Chair(s): Anirban Basu, The University of Chicago

10:35 a.m. **Bayesian Meta-Analysis of Diagnostic Test Accuracy Studies: Recent Developments—**Constantine Gatsonis, Brown University; ✱Carolyn Rutter, Group Health Cooperative

11:00 a.m. **Bayesian Methods for Diagnostics: A Case Study of a Registration Trial—✱**Scott M. Berry, Berry Consultants; Donald A. Berry, The University of Texas M.D. Anderson Cancer Center

11:25 a.m. **Empirical Study of Bayesian Methods for Meta-Analyses of Diagnostic Test Data Using a Large Database of Studies in the Medical Literature—✱**Christopher H. Schmid, Tufts Medical Center

11:50 a.m. Disc: Vanja Dukic, The University of Chicago

12:10 p.m. **Floor Discussion**

119 CC-705

● ▲ Estimating the Exposure to Risk—Invited

Section on Risk Analysis, Section on Statisticians in Defense and National Security, Section on Health Policy Statistics, Section on Statistics in Epidemiology

Organizer(s): Robert A. Stine, University of Pennsylvania
Chair(s): Edward Melnick, New York University

10:35 a.m. **A Perspective on Adversarial Risk Analysis—✱**Nozer Singpurwalla, The George Washington University

11:00 a.m. **Sampling Based on Two Types of Prior—✱**Michael E. Tarter, University of California, Berkeley; Ai-Chu Wu, Consultant

11:25 a.m. **Evaluating the Risk and Exposure of Adverse Outcomes of Drug Products: Recent Experiences and Lessons—✱**Mark Levenson, U.S. Food and Drug Administration

11:50 a.m. **Exposure to Risk from Motor Vehicles and Other Consumer Products—✱**Duane Steffey, Exponent, Inc.

12:15 p.m. **Floor Discussion**

120 CC-113

● ▲ Planets Around Other Suns: Inference and Experimental Design for Exoplanet Studies—Invited

IMS, Section on Physical and Engineering Sciences, Section on Bayesian Statistical Science

Organizer(s): Thomas Loredo, Cornell University
Chair(s): James Berger, Duke University/SAMSI

10:35 a.m. **Detecting New Extrasolar Planets with a Bayesian MCMC Kepler Periodogram—✱**Phil Gregory, The University of British Columbia

11:10 a.m. **Posterior-Guided Importance Sampling for Calculating Marginal Likelihoods, with Application to Bayesian Exoplanet Searches—✱**Jim Crooks, Duke University

11:45 a.m. Disc: Thomas Loredo, Cornell University

12:05 p.m. **Floor Discussion**

121 CC-605

● ▲ Adaptive Designs: Perspectives from Academia, Industry, and Regulatory—Invited

Biopharmaceutical Section, Biometrics Section

Organizer(s): Vivian Yuan, U.S. Food and Drug Administration
Chair(s): Mary A. Foulkes, The George Washington University

10:35 a.m. **Utility of Bayesian Methods in Early- and Late-Phase Adaptive Design Clinical Trials—**✱Sue-Jane Wang, U.S. Food and Drug Administration

11:00 a.m. **Population Enrichment Within a Group Sequential Design—**✱Cyrus R. Mehta, Cytel Inc.; Ping Gao, The Medicines Company; James Ware, Harvard University

11:25 a.m. **Adaptive Designs: Why, How, and When?—** ✱Christopher Jennison, University of Bath

11:50 a.m. Disc: Ralph D'Agostino, Boston University

12:10 p.m. **Floor Discussion**

122 CC-102

● ▲ The Role of Priors in Bayesian Analysis of Complex, Real-World Problems—Invited

International Society of Bayesian Analysis, Section on Bayesian Statistical Science, Section on Health Policy Statistics

Organizer(s): Kerrie L. Mengersen, Queensland University of Technology
Chair(s): Robert Wolpert, Duke University

10:35 a.m. **Combining Experts in Prior Elicitation—** ✱Judith Rousseau, University Paris Dauphine; Guihenneuc Chantal, University Paris 5; Albert Isabelle, INRA; Donnet Sophie, University Paris Dauphine; Mengersen Kerrie, Queensland University of Technology; Lowchoy Samantha, Queensland University of Technology

11:05 a.m. **Bayesian Modeling of Neuron Death—** Anthony Pettitt, Queensland Univeristy of Technology; ✱Gareth Ridall, Lancaster University

11:35 a.m. **Hierarchical Models for Combining Data from Multiple Sources for Risk Assessment—** Louise Ryan, Harvard School of Public Health; ✱Tianxi Cai, Harvard University

12:05 p.m. **Floor Discussion**

Invited Panels 10:30 a.m.–12:20 p.m.

123 CC-704

● ▲ Helping Data Users Better Understand the American Community Survey—Invited

Section on Government Statistics, Social Statistics Section

Organizer(s): Susan Schechter, U.S. Census Bureau
Chair(s): Deborah Griffin, U.S. Census Bureau

Panelists: ✱John Thompson, National Opinion Research Center

✱Joseph Salvo, NYC Department of City Planning

✱Ken Hodges, Claritas Inc.

✱Kennon Copeland, National Opinion Research Center

✱Linda A. Jacobsen, Population Reference Bureau

✱Peter Lobo, NYC Department of City Planning

12:05 p.m. **Floor Discussion**

124 CC-202

● ▲ Directing a Biostatistics Core in Biomedical Research—Invited

Council of Chapters, Biometrics Section, Biopharmaceutical Section

Organizer(s): Michael Hudgens, The University of North Carolina at Chapel Hill
Chair(s): Paul Stewart, The University of North Carolina at Chapel Hill

Panelists: ✱Michael Kutner, Emory University

✱Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health

✱Joseph Hogan, Brown University

✱KyungMann Kim, University of Wisconsin-Madison

✱Susan Ellenberg, University of Pennsylvania

12:15 p.m. **Floor Discussion**

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

125 CC-707

● ▲ Communicating Statistics Through Collaborative Problemsolving—Topic-Contributed

Section on Statistical Consulting, Committee on Career Development, Biopharmaceutical Section, Section on Quality and Productivity, Section on Teaching Statistics in the Health Sciences

Organizer(s): Janet Myhre, Mathematical Analysis Research Corp.

Chair(s): Ralph O'Brien, Case Western Reserve University

10:35 a.m. **Our Collaborative and Value-Creating Problemsolving Process—✱**Arnold Goodman, Collaborative Data Solutions

10:55 a.m. **Collaborative Problemsolving Case Studies—✱**Janet Myhre, Mathematical Analysis Research Corp.

11:15 a.m. **Teaching Consulting and Collaboration Skills in a Graduate Statistics Program—✱**Daniel R. Jeske, University of California, Riverside

11:35 a.m. **Human Challenges to the Collaborative and Value-Creating Problemsolving Process—✱**Doug Zahn, Zahn and Associates

11:55 a.m. Disc: Jon Kettenring, Drew University

12:15 p.m. **Floor Discussion**

126 CC-111

● Integrating Statistics and Bioinformatics Curricula—Topic-Contributed

Section on Teaching Statistics in the Health Sciences, Biopharmaceutical Section, Section on Statistical Education

Organizer(s): John R. Stevens, Utah State University

Chair(s): Robert Oster, The University of Alabama at Birmingham

10:35 a.m. **Applying the GAISE Framework to a Bioinformatics Course—✱**Monnie McGee, Southern Methodist University

10:55 a.m. **Introducing Bioinformatics as Part of Statistics Curriculum at Purdue—✱**Olga Vitek, Purdue University

11:15 a.m. **Strategies for Integrating Biological, Computer, and Statistical Knowledge in Teaching Bioinformatics—✱**Paul Schliekelman, The University of Georgia

11:35 a.m. **The Flip Side: Teaching Statistics to Bioinformatics Students—✱**Mark Segal, University of California, San Francisco

11:55 a.m. Disc: John R. Stevens, Utah State University

12:15 p.m. **Floor Discussion**

127 CC-702

▲ Census Coverage Measurement—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): Richard A. Griffin, U.S. Census Bureau

Chair(s): William R. Bell, U.S. Census Bureau

10:35 a.m. **Relaxing the Autonomous Independence Assumption for Census Coverage Measurement Dual System Estimates—✱**Richard A. Griffin, U.S. Census Bureau

10:55 a.m. **Using Continuous Variables as Modeling Covariates for Net Coverage Estimation—✱**Vincent T. Mule, U.S. Census Bureau; Don Malec, U.S. Census Bureau; Jerry Maples, U.S. Census Bureau; Teresa Schellhamer, U.S. Census Bureau

11:15 a.m. **Direct Estimates as a Diagnostic for Dual System Estimators Based on Logistic Regression—✱**Mary H. Mulry, U.S. Census Bureau; Bruce D. Spencer, Northwestern University; Tom Mule, U.S. Census Bureau; Nganha Nguyen, U.S. Census Bureau; Eric Schindler, U.S. Census Bureau

11:35 a.m. **Assessing Synthetic Error via Markov Chain Monte Carlo Techniques—✱**Andrew Keller, U.S. Census Bureau

11:55 a.m. **Demographic Analysis in 2008 and Beyond—✱**Dean Judson, U.S. Census Bureau; J. Gregory Robinson, U.S. Census Bureau; Kirsten K. West, U.S. Census Bureau; Antonio Bruce, U.S. Census Bureau; Bashiruddin Ahmed, U.S. Census Bureau; Frederick W. Hollman, U.S. Census Bureau

12:15 p.m. **Floor Discussion**

128 CC-610-612

Threshold Regression and Alternative Time Scales—Topic-Contributed

Biometrics Section, Section on Nonparametric Statistics

Organizer(s): Mei-Ling T. Lee, The Ohio State University

Chair(s): David Oakes, University of Rochester

10:35 a.m. **Analyzing Longitudinal Survival Data Using Threshold Regression—✱**George A. Whitmore, McGill University; Mei-Ling T. Lee, The Ohio State University

10:55 a.m. **First-Hitting Time Models with Current Status Data—✱**Xin He, The Ohio State University; Xingwei Tong, Beijing Normal University; Jianguo (Tony) Sun, University of Missouri-Columbia

11:15 a.m. **A Regression-Spline-Based Threshold Regression Model—✱**Zhangsheng Yu, The Ohio State University; Mei-Ling T. Lee, The Ohio State University

11:35 a.m. **Bayesian Random Effects Threshold Regression with Application to Survival Data with Nonproportional Hazards—✱**Michael Pennell, The Ohio State University; George A. Whitmore, McGill University

11:55 a.m. Disc: Yi Li, Harvard University/Dana Farber Cancer Institute

12:15 p.m. **Floor Discussion**

129 CC-105

Time Series II: Model Optimization and Evaluation—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Tucker S. McElroy, U.S. Census Bureau

Chair(s): Scott Holan, University of Missouri-Columbia

10:35 a.m. **A Modification to Khandakar and Hyndman's ARIMA Model Selection Algorithm Using an Empirical Information Criterion—✱**Brian C. Monsell, U.S. Census Bureau

10:55 a.m. **How Frequency of Measurement Affects Petroleum Product Price Pass-Through Models—✱**Carol J. Blumberg, Energy Information Administration

11:15 a.m. **Theoretical and Real Trading-Day Frequencies—✱**Dominique Ladiray, INSEE

11:35 a.m. **The Influences of Bridging Days, School Holidays, and Weather on German Time Series—✱**Robert Kirchner, Deutsche Bundesbank

11:55 a.m. **Further Results on Seasonal Time Series—✱**David A. Dickey, North Carolina State University

12:15 p.m. **Floor Discussion**

130 CC-104

● ▲ Complex Hierarchical Bayesian Biostatistics—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Juan Jia, University of California, Los Angeles

Chair(s): Hal Stern, University of California, Irvine

10:35 a.m. **Analyzing Phylogenetic Recombination Data with Ancestral Recombination Graphs—✱**Erik W. Bloomquist, University of California, Los Angeles; Marc A. Suchard, University of California, Los Angeles

10:55 a.m. **Multivariate Bayesian Variable Selection and Voxel Selection in fMRI—✱**Bradley McEvoy, University of California, Los Angeles; Rajesh Nandy, University of California, Los Angeles

11:15 a.m. **Hierarchical Dynamic Time-to-Event Models for Post-Treatment Preventive Care Data on Breast Cancer Survivors—✱**Freda Cooner, U.S. Food and Drug Administration; Sudipto Banerjee, The University of Minnesota

11:35 a.m. **Bayesian Multivariate Longitudinal Models for Self-Reported Sex Behavior Data—✱**Lily Altstein, University of California, Los Angeles; Robert E. Weiss, University of California, Los Angeles

11:55 a.m. **Model Selection for Clustered Outcome Common Predictor Effect Models—✱**Juan Jia, University of California, Los Angeles; Robert E. Weiss, University of California, Los Angeles

12:15 p.m. **Floor Discussion**

131 CC-110

● ▲ Theory and Applications of Curve Estimation—Topic-Contributed

Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, IMS

Organizer(s): Sam Efromovich, The University of Texas at Dallas

Chair(s): Marianna Pensky, University of Central Florida

10:35 a.m. **Nonparametric Methods in Gradual Change-Point Detection—✱**Michael Baron, The University of Texas at Dallas

10:55 a.m. **A New Semiparametric Procedure for Matched Case-Control Studies with Missing Covariates—✱**Suojin Wang, Texas A&M University; Samiran Sinha, Texas A&M University

11:15 a.m. **Confidence Bands Based on the Smoothing Spline—✱**Vincent N. LaRiccia, University of Delaware; Paul P.P. Eggermont, University of Delaware

11:35 a.m. **Sharp Nonparametric Estimation and Bioapplications—✱**Sam Efromovich, The University of Texas at Dallas

11:55 a.m. **Semi-Supervised Wavelet Thresholding and Applications—**Kichun S. Lee, Georgia Institute of Technology; ✱Brani Vidakovic, Georgia Institute of Technology

12:15 p.m. **Floor Discussion**

132 CC-109

● Importance of Predictors in Statistical Models—Topic-Contributed

Section on Statistics and Marketing, Section on Quality and Productivity

Organizer(s): Ehsan Soofi, University of Wisconsin-Madison
Chair(s): Shon Magnan, GfK Custom Research North America

10:35 a.m. **Estimation of Predictor Shares via Multinomial Parameterization: Application to Regression Coefficients and to PCA and SVD Loadings—✱**Stan Lipovetsky, GfK Custom Research North America

10:55 a.m. **Maximum Entropy Choice Probabilities vs. Random Utility Choice Probabilities—✱**Robert Bordley, General Motors Research Labs; Ehsan Soofi, University of Wisconsin-Madison

11:15 a.m. **Information Importance of Predictors: Concept, Measures, Bayesian Inference, and Applications—✱**Ehsan Soofi, University of Wisconsin-Madison; Joseph Retzer, Maritz Research; Refik Soyer, The George Washington University

11:35 a.m. **Importance of a Predictor When the Predictor Is Also the Dependent Variable of Interest—✱**Alaattin Erkanli, Duke University

11:55 a.m. Disc: Barry Feldman, Russell Indexes Research

12:15 p.m. **Floor Discussion**

Topic-Contributed Panels 10:30 a.m.–12:20 p.m.

133 CC-106

● ▲ Teaching Through Service Learning: Getting Statistics Out of the Classroom While Enhancing Learning—Topic-Contributed

Section on Statistical Education

Organizer(s): Amy L. Phelps, Duquesne University
Chair(s): Michelle Sisto, International University of Monaco

Panelists: ✱Amy L. Phelps, Duquesne University
✱Norean R. Sharpe, Babson College
✱Paul J. Roback, St. Olaf College
✱Beth Walters, Loyola College in Maryland

12:15 p.m. **Floor Discussion**

Contributed Sessions 10:30 a.m.–12:20 p.m.

134 CC-606

Inference Issues in Biometric Data—Contributed

Biometrics Section

Chair(s): Danielle Sheng, Merck & Co., Inc.

10:35 a.m. **A New Confidence Interval for a Simple Effect in a 2-by-2 Factorial Experiment Utilizing Uncertain Prior Information That the Two-Factor Interaction Is Zero—✱**Paul Kabaila, La Trobe University; Khageswor Giri, La Trobe University

10:50 a.m. **Testing for Group Effect in a 2 x k Heteroscedastic ANOVA Model—✱**James F. Troendle, National Institute of Child Health and Human Development

11:05 a.m. **Tolerance Limits for a Ratio of Two Normal Random Variables—✱**Lanju Zhang, MedImmune, Inc.; Thomas Mathew, University of Maryland, Baltimore County; Harry Yang, MedImmune, Inc.; K. Krishnamoorthy, University of Louisiana at Lafayette; Iksung Cho, MedImmune, Inc.

11:20 a.m. **Longitudinal Assessment of Hearing Toxicity in a Phase III Clinical Trial for Reduction of Sporadic Adenomas—✱**Christine E. McLaren, University of California, Irvine; Wen-Pin Chen, Chao Family Comprehensive Cancer Center; Sharon Fujikawa-Brooks, Chao Family Comprehensive Cancer Center; Frank L. Meyskens, Chao Family Comprehensive Cancer Center

11:35 a.m. **Statistical Methods for Active Extension Trials—✱**Zonghui Hu, National Institutes of Health; Dean Follmann, National Institutes of Health

11:50 a.m. **A Transformation Binormal Model To Estimate the ROC Curve of a Continuous Biomarker—✱**Danping Liu, University of Washington; Andrew Zhou, University of Washington

12:05 p.m. **Testing for Heterogeneity Among the Components of a Binary Composite Outcome—✱**Janice Pogue, McMaster University; Lehana Thabane, McMaster University

135 CC-701

▲ Rethinking Established Practice—Contributed

Social Statistics Section, Section on Government Statistics

Chair(s): Yves Thibaudeau, U.S. Census Bureau

10:35 a.m. **Effects of Dependence on Meta-Analytic Tests—✱**Kevin Henning, Texas Tech University

10:50 a.m. **Classification Rules for Repeated Measures Data from Multiple Sources—✱**Anuradha Roy, The University of Texas at San Antonio; Ricardo Leiva, Universidad Nacional de Cuyo

11:05 a.m. **New Modified Chi-Squared Goodness-of-Fit Tests and Their Application in Particle Physics and Political Science—✱**Vassilly Voinov, KIMEP

11:20 a.m. **Statistical and Physical Models in Social Sciences: A New Reconciliation—✱**Igor Mandel, Advanced Marketing Models

11:35 a.m. **Who (Really) Are the First Boomers?—✱**Howard Hogan, U.S. Census Bureau; Debbie Perez, U.S. Census Bureau; William R. Bell, U.S. Census Bureau

11:50 a.m. **A Trigger for Further Auditing After a Post-Election Audit for Winner Verification—✱**Vittorio Addona, Macalester College; Katherine Lim, Macalester College

12:05 p.m. **A Study on Tests of Symmetry with Ordered Alternatives in Higher-Dimensional Contingency Tables—✱**Ping Ye, Southern Illinois University Carbondale; Bhaskar Bhattacharya, Southern Illinois University Carbondale

136 CC-712

● Genetic Association Studies—Contributed

Section on Statistics in Epidemiology, Biopharmaceutical Section, Biometrics Section

Chair(s): Ching-Ti Liu, Yale University

10:35 a.m. **Incorporating Heterogeneity of Maternal Effects for Precisely Detecting Parent-of-Origin Effect—✱**Jingyuan Yang, The Ohio State University

10:50 a.m. **Information Geometry, Gene-Gene, Gene-Environment Interaction, and Pathway Association—✱**Momiao Xiong, The University of Texas School of Public Health; Li Luo, The University of Texas School of Public Health; Gang Peng, Fudan University

11:05 a.m. **Functional Genetic Models for Unraveling Path from Genomic Information to Complex Phenotypes—✱**Li Luo, The University of Texas School of Public Health; John Reveille, The University of Texas Medical School; Momiao Xiong, The University of Texas School of Public Health

11:20 a.m. **Bayesian Mixture Models for Case-Control, Genome-Wide Association Studies—✱**Lin Li, Cornell University; Andrew G. Clark, Cornell University; Carlos D. Bustamante, Cornell University

11:35 a.m. **A Multiple Testing Correction Method for Genetic Association Studies Using Correlated SNPs—✱**Xiaoyi Gao, Miami Institute for Human Genomics; Joshua Starmer, The University of North Carolina at Chapel Hill; Eden R. Martin, Miami Institute for Human Genomics

11:50 a.m. **A Novel Nonparametric Test for Admixture Mapping in Unrelated Individuals Based on Functional Principal Component Analysis—✱**Kun Chen, University of California, Davis; Jane-Ling Wang, University of California, Davis

12:05 p.m. **Ancestral Haplotype Inference Based on Conditional Randoms Fields and Its Application to Disease Association Test—✱**Xiaolin Yin, Case Western Reserve University

137 CC-708

Spatial Statistics: Theory—Contributed

Section on Statistics and the Environment, IMS

Chair(s): Lu Gan, Missouri University of Science and Technology

10:35 a.m. **Large-Scale Structure in Multiparameter Markov Random Field Models—✱**Jonathan Hobbs, Iowa State University

10:50 a.m. **On the Codispersion Coefficient for Spatial Sequences—✱**Ronny O. Vallejos, Universidad de ValparaÌso

11:05 a.m. **Estimation with Extended CAR Models for Large Lattices—✱**Ernst Linder, University of New Hampshire

11:20 a.m. **Space-Time Models: A Spatially Dependent Filtering Approach—✱**Peter F. Craigmile, The Ohio State University

11:35 a.m. **Thinning and Augmenting of Point Process Patterns for Model Assessment Using Ripley's K-Function—✱**Alejandro Veen, IBM T. J. Watson Research Center

11:50 a.m. **A Penalized Likelihood Approach to Modeling Spatial Counts and Mapping Indices of Aggregation—✱**Nels Grevstad, Metropolitan State College of Denver

12:05 p.m. **The Generalized Linear Model with Spatial Variation and Multiple Covariates—✱**J. Aleong, University of Vermont

138 CC-101

Graphical Displays, Maps, and Active Learning—Contributed

Section on Statistical Education, Section on Statistical Graphics

Chair(s): David B. Hitchcock, University of South Carolina

10:35 a.m. **What's Wrong with This Picture?—✱**Robert Easterling, Itinerant Visiting Professor

10:50 a.m. **Why Introductory Statistics Courses Should Not Be Mapless—✱**Mary Richardson, Grand Valley State University; Paul Stephenson, Grand Valley State University

11:05 a.m. **Graphical Exploration and Suggestions for the Selection of a Regression Model Using Real Data—**Irene Schiattino, Universidad de Chile; Claudio Silva, Universidad de Chile; ✱Carmen Acuna, Bucknell University; Rosa Montaño, Universidad de Chile; Verónica Iglesias, Universidad de Chile

11:20 a.m. **Visualization of Probability Distributions—**Betul Atalay, Saint Joseph's University; Agnes M. Rash, Saint Joseph's University; Deborah Lurie, Saint Joseph's University; ✱Susanna Wei, Saint Joseph's University

11:35 a.m. **The Importance of a Checkpoint: Designing Active Learning Labs—✱**Leigh V. Slauson, Otterbein College

11:50 a.m. **Project 'Project': Developing a Cumulative Group Activity for a Basic Statistics Course—✱**Christopher E. Barat, Villa Julie College; Vallory A. Shearer, Villa Julie College

12:05 p.m. **Teaching with Chocolate Chip Cookies—✱**Herbert Lee, University of California, Santa Cruz

139 CC-108

Diagnostics and Goodness-of-Fit—Contributed

Section on Statistical Computing

Chair(s): Gregory L. Snow, Intermountain Healthcare

10:35 a.m. **Numerator-Denominator Plots—✱**William D. Heavlin, Google, Inc.; Judith Koslov, Sun Microsystems, Inc.

10:50 a.m. **Outlier Detection Using the Smallest Kernel Principal Components with Radial Basis Function Kernel—**Yan Shen, Temple University; ✱Alan J. Izenman, Temple University

11:05 a.m. **Fast Diagnostics—✱**Gentiane Haesbroeck, University of Liege

11:20 a.m. **Far Casting Cross Validation—✱**Patrick Carmack, The University of Texas Southwestern Medical Center; Jeffrey Spence, The University of Texas Southwestern Medical Center; Qihua Lin, The University of Texas Southwestern Medical Center; William R. Schucany, Southern Methodist University; Richard Gunst, Southern Methodist University

11:35 a.m. **Judging a Model of an Experiment—✱**Robert Blodgett, U.S. Food and Drug Administration

11:50 a.m. **Mixed Model Selection Criteria Based on Statistical Computation and Leave-One-Out Method—✱**Junfeng Shang, Bowling Green State University

12:05 p.m. **Extending the Range of Application for Generalized Goodness-of-Fit Statistics—✱**Leah Jager, U.S. Naval Academy

140 CC-711

● Advances in Experimental Design—Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity

Chair(s): Elizabeth Martínez-Gómez, National Autonomous University of Mexico

10:35 a.m. **Optimal Two-Level Fractional Factorial Designs for Location Main Effects with Dispersion Factors—✱**Chao-Ping Ting, National Cheng-Chi University; Fu-Kai Chang, National Taiwan University

10:50 a.m. **Whole-Plot Exchange Algorithms for Constructing D-Optimal Multistratum Designs—✱**Christopher I. Vahl, North Dakota State University; George A. Milliken, Kansas State University

11:05 a.m. **On the Weighted Optimality of Incomplete Block Designs—✱**Xiaowei Wang, Virginia Polytechnic Institute and State University

11:20 a.m. **A Class of Saturated Square Designs—✱**Xianggui Qu, Oakland University; Theophilus Ogunyemi, Oakland University

11:35 a.m. **A Class of Partially Replicated Two-Level Fractional Factorial Designs—✱**Paul J. Lupinacci, Villanova University; Joseph G. Pigeon, Villanova University

11:50 a.m. **Nested Latin Hypercube Designs—✱**Zhiguang (Peter) Qian, University of Wisconsin-Madison

12:05 p.m. **Equivalence of Symmetric Factorial Experiments Having Both Qualitative and Quantitative Factors—✱**Tena I. Katsaounis, The Ohio State University; Angela M. Dean, The Ohio State University

141 CC-112

● Sign and Rank Methods: New Applications and Updated Perspectives—Contributed

Section on Nonparametric Statistics

Chair(s): Leann Myers, Tulane University

10:35 a.m. **Nonparametric and Parametric Multivariate Tests—✱**Arne Bathke, University of Kentucky; Solomon W. Harrar, University of Montana

10:50 a.m. **Using Shrinkage in an Exact Test for Clustered Binary Data with Small Numbers of Clusters—✱**Patrick Gerard, Clemson University; William R. Schucany, Southern Methodist University

11:05 a.m. **Wilcoxon-Mann-Whitney or T-Test? On Assumptions for Hypothesis Tests and Multiple Interpretations of Decision Rules—✱**Michael P. Fay, National Institute of Allergies and Infectious Diseases

11:20 a.m. **Recent Advances in Informative One- and Two-Sample Goodness-of-Fit Testing—✱**Olivier Thas, Ghent University; John Rayner, University of Newcastle, Australia; Donald J. Best, University of Newcastle

11:35 a.m. **A Nonparametric Test of Independence Between Response and Covariate Adjusted for Treatment Effect—✱**Siti Tolos, Kansas State University; Haiyan Wang, Kansas State University

11:50 a.m. **Heteroscedastic, Unbalanced, Two-Fold, Nested Model When the Number of Subclasses Is Large—✱**Shu-Min Liao, The Pennsylvania State University; Michael G. Akritas, The Pennsylvania State University

12:05 p.m. **Ranking of Graph Data with Kernelized Spatial Depth—✱**Cuilan Gao, University of Mississippi; Xin Dang, University of Mississippi

142 CC-103

Bayesian Applications in Social Sciences, Public Health, and Sports—Contributed

Section on Bayesian Statistical Science, Section on Health Policy Statistics

Chair(s): Jason Kramer, University of California, Irvine

10:35 a.m. **Rasch and Mixture of Generalized Linear Mixed Models for Analysis of Aphasic Deficits of Syntactic Comprehension—✱**Roee Gutman, Harvard University; Gayle DeDe, Boston University; David Caplan, Massachusetts General Hospital; Jun S. Liu, Harvard University

10:50 a.m. **Modeling Long-Run Macroeconomic Growth with Gaussian Graphical Models—✱**Alex Lenkoski, University of Washington; Adrian Dobra, University of Washington; Theo Eicher, University of Washington

11:05 a.m. **A Bayesian Time Series Model for Death Penalty Public Opinion—✱**Kenneth E. Shirley, Columbia University; Andrew Gelman, Columbia University

11:20 a.m. **Probabilistic Projections of Fertility Using a Bayesian Hierarchical Model—✱**Leontine Alkema, University of Washington; Adrian E. Raftery, University of Washington; Patrick Gerland, United Nations Population Division; Samuel Clark, University of Washington; Francois Pelletier, United Nations Population Division

11:35 a.m. **Joint Modeling of Birth Weight and Gestational Age—✱**Scott L. Schwartz, Duke University; Alan Gelfand, Duke University

11:50 a.m. **Improved Mixing with Simulated Annealing in Bimodal Footrace Finishing Times—✱**Matthew S. Shotwell, Medical University of South Carolina; Paul J. Nietert, Medical University of South Carolina; Elizabeth Slate, Medical University of South Carolina

12:05 p.m. **Reweighting the Bowl Championship Series—✱**Susan Buchman, Carnegie Mellon University; Joseph B. Kadane, Carnegie Mellon University

143 CC-608

● Methods in Linear and Generalized Linear Models—Contributed

ENAR, Biometrics Section

Chair(s): Edward L. Boone, Virginia Commonwealth University

10:35 a.m. **Tuning Parameter Selections for Penalized Likelihood Functions—✱**Yiyun Zhang, The Pennsylvania State University; Runze Li, The Pennsylvania State University; Chih-Ling Tsai, University of California, Davis

10:50 a.m. **Cumulative Logit—Poisson and Cumulative Logit—Negative Binomial Compound Regression Models for Count Data—✱**Mark VanRaden, National Institutes of Health; John M. Lachin, The George Washington University

11:05 a.m. **Comparison of Designs for Correlated Response Models with an Unknown Dispersion Matrix—✱**Sourish Saha, GlaxoSmithKline; Andre Khuri, University of Florida

11:20 a.m. **Demonstration of User-Written Software in Stata, R, and Matlab for Analysis of a Familial Correlation Structure in a Quasi-Least Squares Analysis of Weight Loss in the SHARE Study—✱**Xiaoying Wu, University of Pennsylvania; Jichun Xie, University of Pennsylvania; Sarah Ratcliffe, University of Pennsylvania; Shiriki Kumanyika, University of Pennsylvania; Justine Shults, University of Pennsylvania

11:35 a.m. **Variable Selection in Models with Block Structures—✱**Dongyu Lin, University of Pennsylvania; Dean Foster, University of Pennsylvania

11:50 a.m. **Symbolic Data Analysis: Interval-Valued Data Regression—✱**Wei Xu, The University of Georgia

12:05 p.m. **Floor Discussion**

144 CC-107

Econometric Modeling, Robustness, and Heavy Tails—Contributed

Business and Economics Statistics Section, Section on Nonparametric Statistics

Chair(s): Mengchen Hsieh, Stern School of Business/New York University

10:35 a.m. **Small Sample Performance of Instrumental Variables Probit Estimators: A Monte Carlo Investigation—✱**Lee C. Adkins, Oklahoma State University

10:50 a.m. **Use of Optimal Instrument Variables for Estimating Spatial Modeling Parameters with Application to Crime Survey Data—✱**Krista Collins, Statistics Canada; Avinash C. Singh, Statistics Canada

11:05 a.m. **A Robust LOESS Smooth Approach to Problem Bank Identification—**Randall Kimmel, Kent State University; ✱David Booth, Kent State University; Stephane Booth, Kent State University

11:20 a.m. **Finite Sample Tests for the Composite Hypothesis of Stable Law—✱**Thomas R. Willemain, Rensselaer Polytechnic Institute; Albert S. Paulson, Rensselaer Polytechnic Institute; Xin R. Zhong,

11:35 a.m. **Bootstrap Prediction Intervals for Large Financial Data Sets—✱**William L. Seaver, The University of Tennessee, Knoxville; Donglin Wang, The University of Tennessee, Knoxville

11:50 a.m. **What Has Been the Government's Role in the Erosion of Auto Sales by U.S. Firms?—✱**Ronald Tracy, Oakland University

12:05 p.m. **Competitiveness of Different Groups of Italian Enterprises Detected Using Robust Classification Methods—**Luigi Biggeri, Italian National Institute of Statistics; ✱Matilde Bini, University of Florence; Filippo Oropallo, Italian National Institute of Statistics

145 CC-604

▲ Causal Inference—Contributed

Biometrics Section, Biopharmaceutical Section, Section on Health Policy Statistics, Section on Statistics in Epidemiology

Chair(s): Catherine Stamoulis, Harvard School of Public Health

10:35 a.m. **General Theory for Sufficient Cause Interactions—✱**Tyler VanderWeele, The University of Chicago

10:50 a.m. **Improving the Efficiency and Robustness of Doubly Robust Estimator for Estimation of Population Mean Response in the Presence of Incomplete Data—✱**Weihua Cao, North Carolina State University; Anastasios Tsiatis, North Carolina State University; Marie Davidian, North Carolina State University

11:05 a.m. **Semiparametric Estimation of Treatment Effects on an Outcome Measured After a Post-Randomization Event, with Missing Outcome Data—✱**Yuying Jin, University of Washington; Peter B. Gilbert, Fred Hutchinson Cancer Research Center

11:20 a.m. **Average Causal Effect Estimation Allowing Covariate Measurement Error—✱**Yi Huang, University of Maryland, Baltimore County; Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health; Constantine E. Frangakis, Johns Hopkins University

11:35 a.m. **Sensitivity Analysis of the Effect of Treatment Received in a Principal Stratification Framework—✱**Corwin Zigler, University of California, Los Angeles; Tom Belin, University of California, Los Angeles

11:50 a.m. **Assessing the Surrogate and Predictive Value of a Biomarker Measured After Randomization—✱**Julian Wolfson, University of Washington; Peter B. Gilbert, Fred Hutchinson Cancer Research Center

12:05 p.m. **Potential Outcomes Applied to an Intentional Weight Loss Application—✱**Thidaporn Supapakorn, Kansas State University; Gary L. Gadbury, Kansas State University; Christopher S. Coffey, The University of Alabama at Birmingham; Scott W. Keith, The University of Alabama at Birmingham; David B. Allison, The University of Alabama at Birmingham

146 CC-602

Multivariate Methods for Analysis of Genetic Data—Contributed

Biometrics Section, Section on Nonparametric Statistics, Biopharmaceutical Section, IMS

Chair(s): Tiejun Tong, University of Colorado, Boulder

10:35 a.m. **Inference on Low-Rank Data Matrices with Applications to Microarray Data—✱**Xingdong Feng, University of Illinois at Urbana-Champaign

10:50 a.m. **Application of Multiple Correspondence Analysis and Cluster Analysis in Phenotypically Subtyping Medical and Psychiatric Disorders—✱**Grace Chan, University of Connecticut

11:05 a.m. **An FDR-Controlling Procedure for Analyzing Replicated Microarray Time Course Data with the Multivariate Empirical Bayes Statistic—✱**Nancy N. Wang, University of California, Berkeley; Terence P. Speed, University of California, Berkeley

11:20 a.m. **Outliers When Clustering Microarray Data—✱**Johanna Hardin, Pomona College

11:35 a.m. **Reproducibility of Classification Rules Based on a Bootstrap Resampling Approach—✱**Chin-Yuan Liang, The Ohio State University

11:50 a.m. **Sliced Inverse Factor Analysis—✱**Ronghua Luo, Peking University; Hansheng Wang, Peking University; Chih-Ling Tsai, University of California, Davis

12:05 p.m. **A Novel Multistage Approach To Classify Samples Across Multiple Gene Expression Experiments—✱**Heather A. Adams, University of Illinois at Urbana-Champaign; Sandra L. Rodriguez-Zas, University of Illinois at Urbana-Champaign; Bruce Southey, University of Illinois at Urbana-Champaign

147 CC-601

● Statistical Inference in Biopharmaceutical Research—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Jiajun Liu, Merck Research Laboratories

10:35 a.m. **Cochran-Mantel-Haenszel Weighted Miettinen and Nurminen Method for Confidence Intervals of the Difference in Binomial Proportions from Stratified 2x2 Samples—✱**Kaifeng Lu, Merck & Co., Inc.

10:50 a.m. **A Nonparametric Method for Group Comparison Using Data from Two Sequential Assays with Different Lower Limits of Quantification (LLOQ)—✱**Lixin Han, Wyeth; Jared Christensen, Wyeth; Fred Immermann, Wyeth; Ron Menton, Wyeth

11:05 a.m. **Direct Approaches to Shelf Life Estimation—✱**Michelle Quinlan, University of Nebraska-Lincoln; Walter Stroup, University of Nebraska-Lincoln; James Schwenke, Boehringer Ingelheim Pharmaceuticals, Inc.

11:20 a.m. **The Tau-Path Test for Detecting Subpopulation Association—✱**Li Yu, The Ohio State University; Joseph Verducci, The Ohio State University

11:35 a.m. **Differential Expression Analysis with Missing Data: Application in Two-Dimensional Gel Electrophoresis (2DGE) Analysis—✱**Dan Li, University of California, Davis; Susanne R. Berglund, University of California Davis Cancer Center; Alison Santana, University of California Davis Cancer Center; Zelanna Goldberg, University of California Davis Cancer Center; David M. Rocke, University of California, Davis

11:50 a.m. **Statistical Models and Testing Methods in Clinical Trials for the Prevention of Type 2-Diabetes Mellitus—✱**Xiaodan Wei, sanofi-aventis; Peng-liang Zhao, sanofi-aventis; Ji Zhang, sanofi-aventis

12:05 p.m. **A Latent Normal Approach for Equivalence Trials with Ordinal Responses Using Pairwise Likelihood—✱**Juanmei Liu, University of California, Los Angeles/Kaiser Permanente

148 CC-607

● ▲ Early Human Trials and Crossover Designs—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Stephanie Dunbar, Merck Research Laboratories

10:35 a.m. **Statistical Issues for First-in-Human Designs—✱**Xiaoni Liu, Bristol-Myers Squibb Company; Robert Smith, Bristol-Myers Squibb Company

10:50 a.m. **Linear Models for the Analysis of Alternating Panel Rising Dose Designs—**Bo Jin, Merck & Co., Inc.; ✱Peng Sun, Merck & Co., Inc.

11:05 a.m. **Statistical Analysis Methods and Clinical Pharmacology Understanding on Bioavailability Comparison in Complete and Incomplete Crossover Design and Parallel Design Studies—✱**Yonghua Wang, Bristol-Myers Squibb Company

11:20 a.m. **The Influence of Time on Individual Response Variability in a Two-Treatment, Three-Periods Crossover Design—✱**Edwin Ndum, Kansas State University; Gary L. Gadbury, Kansas State University

11:35 a.m. **Use of Baseline Measurements in the 2 X 2 Crossover Trial—✱**Lingling Han, Merck & Co., Inc.; John Stufken, The University of Georgia

11:50 a.m. **Floor Discussion**

Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

149 CC-F Lobby

Section on Survey Research Methods Contributed Poster Presentations—Contributed

Section on Survey Research Methods

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Applications and case studies

34 **ASA Committee Web Sites—✱**Alan R. Tupek, Arbitron Inc.; Chet Bowie, National Opinion Research Center

35 **Application of Confirmatory Factor Analysis To Establish the Validity of a Practice-Analysis Survey—✱**Heibatollah Baghi, George Mason University; Teresa Panniers, George Mason University; Mary Smolenski, American Nurses Credentialing Center

Categorical, multivariate analysis

36 **Testing the Proportional Odds Assumption for Complex Data—✱**George G. Brown, RTI International

Computational statistics, numerical methods, simulation

37 **Fast Record Linkage of Very Large Files in Support of Decennial and Administrative Records Projects—✱**William E. Yancey, U.S. Census Bureau; William E. Winkler, U.S. Census Bureau; Edward H. Porter, U.S. Census Bureau

Environmetrics, ecology, agriculture, wildlife management

38 **Bid Design and Its Influence on Stated Willingness To Pay and Participation in a Deposit Refund Program in a Survey of Nonrefillable Plastic Pesticide Users—✱**Danna L. Moore, Washinton State University

Incomplete data analysis, imputation methods

39 **Imputation Methods for Missing Data in a Longitudinal Family Study—✱**Michael D. Larsen, Iowa State University; Frederick O. Lorenz, Iowa State University

40 **Imputation for Missing Physiological and Health Measurement Data: Tests and Applications—✱**Matt Jans, The University of Michigan; Steven G. Heeringa, Institute for Social Research

41 **A New Approach to Estimation of Response Probabilities When Missing Data Are Not Missing at Random—✱**Michael Sverchkov, BAE Systems/ Bureau of Labor Statistics

42 **Model-Assisted Hot-Deck Imputation—**Hongjian Yu, University of California, Los Angeles; ✱Winnie Huang, University of California, Los Angeles; Jenny Chia, University of California, Los Angeles; Sunghee Lee, University of California, Los Angeles

43 **Imputing and Jackknifing Scrambled Responses—✱**Inderjit S. Grewal, Punjab Agricultural University; Jong M. Kim, The University of Minnesota, Morris; Sarjinder Singh, The University of Texas at Brownsville/Texas Southmost College

Longitudinal data, repeated measurements, and meta-analysis

44 **Handling Attrition Bias on Longitudinal Studies of Mental Health Within Older Adults—✱**Moh Yin Chang, University of Nebraska-Lincoln

45 **Analysis of Using the SERVQUAL Model for Student Faculty Course Evaluations—✱**Dennis F.X. Mathaisel, Babson College

46 **Factorial Invariance and Robustness to Low Variability: Maximum Likelihood Factor Analysis vs. Correlation Constraint Analysis—✱**Rochelle E. Tractenberg, Georgetown University

QC, operation research, risk assessment

47 **A Quality-Control Approach for Statistical Computer Programs—✱**Darryl V. Creel, RTI International

Sampling and survey methodology

48 **Measurement of Perceived Health Status: Respondent and Mode Effects in a National Health Survey—✱**Steven R. Machlin, Agency for Healthcare Research and Quality; Karen Beauregard, Agency for Healthcare Research and Quality; William Yu, Agency for Healthcare Research and Quality

49 **Cluster Size in Multilevel Models: The Impact of Sparse Data Structures on Point and Interval Estimates in Two-Level Models—✱**Bethany A. Bell-Ellison, University of South Florida; John M. Ferron, University of South Florida; Jeffrey D. Kromrey, University of South Florida

50 **State and County Small-Area Estimation Using the National Health Interview Survey (NHIS) and Behavioral Risk Factors Surveillance System (BRFSS)—✱**Van Parsons, National Center for Health Statistics; Nathaniel Schenker, National Center for Health Statistics

51 **Variance of the With-Replacement Sample Variance—✱**Eungchun Cho, Kentucky State University; Moon J. Cho, Bureau of Labor Statistics

52 **The Use of Paradata for Evaluating Interviewer Training and Performance—✱**William P. Mockovak, Bureau of Labor Statistics; Randall Powers, Bureau of Labor Statistics

53 **Which Incentives Work Best for Respondents in Today's RDD Surveys?—✱**Barbara L. Carlson, Mathematica Policy Research, Inc.; Karen CyBulski, Mathematica Policy Research, Inc.; Tom Barton, Mathematica Policy Research, Inc.

54 **Year-to-Year Correlation in National Health Interview Survey Estimates—✱**Chris Moriarity, National Center for Health Statistics; Van Parsons, National Center for Health Statistics

55 **On Using Sample Survey Techniques To Collect and Analyze Data Pertaining to Vehicular Traffic and Parking Problems on a University Campus—** Ray Okafor, University of Lagos; ✱Ugochukwu Mbata, University of Lagos; Jeanvive Amaraegbu, University of Lagos; Adebisi Fetuga, University of Lagos; Adebayo Jawando, University of Lagos; Olabaode Fasuyi, University of Lagos; Ajayi Olalusi, University of Lagos; Babalola Apara, University of Lagos; Jamaica Tamunotonye, University of Lagos; Titilayo Smith, University

56 **Hardy-Weinberg Equilibrium for Unequal-Probability Genotype Samples—✱**Thomas Lumley, University of Washington

57 **Surveying Parts To Construct the Whole: Sampling and Estimation Issues—✱**Eugene M. Burns, Energy Information Administration; Jay Olsen, Energy Information Administration

58 **Mobile Phone Survey Methodology in China—✱**Xiaoyin Sun, The University of Hong Kong; John Bacon-Shone, The University of Hong Kong

59 **Response Quality Among Reluctant Respondents—✱**Olena Kaminska, University of Nebraska-Lincoln

60 **Cell Phone–Only Research at Arbitron: Statistical Analyses—✱**Richard Griffiths, Arbitron Inc.

61 **Controlling Effect of Sample Design on Principal Components Analysis: A Simulation Study—**✱Francine Barrington, Macro International; Andrey Vinokurov, Macro International; Pedro J. Saavedra, Macro International

62 **Coevolution of Multivariate Optimal Allocations and Stratum Boundaries—**✱Charles Day, Internal Revenue Service

63 **Accounting for Sampling Design in Complex Surveys: A Jamaican Example—**✱Novie O.M. Younger, The University of the West Indies, Jamaica; Rainford Wilks, ERU-TMRI

64 **Effects of Sampling and Screening Strategies in an RDD Survey—**Anthony M. Roman, University of Massachusetts Boston; ✱Rebecca Crow, University of Massachusetts Boston; Elizabeth Eggleston, Research Triangle Institute; Charles F. Turner, Queens College and Graduate Center, CUNY; Susan M. Rogers, Research Triangle Institute; Sylvia Tan, Research Triangle Institute

65 **The Impact of Income Imputation Using Cascading Partial Income Information in California Health Interview Survey—**✱Yifeng J. Chia, University of California, Los Angeles; Winnie Huang, University of California, Los Angeles; Hongjian Yu, University of California, Los Angeles

Speaker with Lunch
12:30 p.m.–1:50 p.m.

150 HY-Capitol Ballroom 6
Section on Statistics in Sports Speaker with Lunch (fee event)—Speaker with Lunch

Section on Statistics in Sports

Organizer(s): Jerome Reiter, Duke University

ML07 **It's a Nice Hobby, but ... Making the Transition from Providing Insight into Statistics Through Sports to Providing Insight into Sports Through Statistics—**✱James J. Cochran, Louisiana Tech University

Roundtables with Lunch
12:30 p.m.–1:50 p.m.

151 HY-Capitol Ballroom 4
Section on Bayesian Statistical Science Roundtable with Lunch (fee event)

Section on Bayesian Statistical Science

Organizer(s): Michael Daniels, University of Florida

ML08 **Informative Priors and Sensitivity Analysis for Missing Data and Causal Inference—**✱Joseph Hogan, Brown University

152 HY-Capitol Ballroom 4
Biopharmaceutical Section Roundtables with Lunch (fee event)
Biopharmaceutical Section

Organizer(s): Matilde Sanchez, Arena Pharmaceuticals

ML09 **Analytical Issues and Practical Solutions for Missing Data in Clinical Trials—✱**Jayawant Mandrekar, Mayo Clinic

ML10 **Adaptive Designs: Sample Size Re-Estimation and Interim Analyses—✱**Dennis King, STATKING Consulting, Inc.

ML11 **Design and Analysis of Medical Device Clinical Studies for Purposes of FDA Marketing Approval—✱**Gary Kamer, U.S. Food and Drug Administration

ML12 **How Not To Be Lost in Translation: Expanding Roles for Consultant Statisticians in the Era of Multinational Drug Development—✱**Yoko Adachi, U.S. Food and Drug Administration

ML13 **Innovative Statistical Design Using Biomarkers in Early-Phase Cancer Clinical Trials—✱**Ying Lu, University of California, San Francisco

153 HY-Capitol Ballroom 4
Section on Government Statistics Roundtable with Lunch (fee event)
Section on Government Statistics

Organizer(s): Sunghee Lee, University of California, Los Angeles

ML14 **How Should Prison Inmates Be Incorporated in Census Tabulations?—✱**Tom Belin, University of California, Los Angeles

154 HY-Capitol Ballroom 4
Section on Health Policy Statistics Roundtable with Lunch (fee event)
Section on Health Policy Statistics

Organizer(s): Mary Beth Landrum, Harvard Medical School

ML15 **Is There a Future for Surrogate Marker Evaluation in Randomized Clinical Studies?—✱**Geert Molenberghs, Hasselt University

155 HY-Capitol Ballroom 4
Section on Nonparametric Statistics Roundtable with Lunch (fee event)
Section on Nonparametric Statistics

Organizer(s): Simon Sheather, Texas A&M University

ML16 **Nonparametric Statistics: A Look into the Future—✱**Peter G. Hall, The University of Melbourne

156 HY-Capitol Ballroom 4
Section on Physical and Engineering Sciences Roundtable with Lunch (fee event)
Section on Physical and Engineering Sciences

Organizer(s): Jeffery J. Luner, The Boeing Company

ML17 **Statistical Issues in Cybersecurity—✱**Joanne R. Wendelberger, Los Alamos National Laboratory

157 HY-Capitol Ballroom 4
Section on Quality and Productivity Roundtables with Lunch (fee event)
Section on Quality and Productivity

Organizer(s): Donald W. McCormack, Jr., Amgen, Inc.

ML18 **Nonclinical Applications in the Pharmaceutical Industry—✱**Richard K. Burdick, Amgen, Inc.

ML19 **Being a Female Industrial Statistician—✱**Diane K. Michelson, International Sematech Manufacturing Initiative

158 HY-Capitol Ballroom 5
Section on Statistical Education Roundtables with Lunch (fee event)
Section on Statistical Education

Organizer(s): Peter Westfall, Texas Tech University

ML20 **Improving Utility and Fairness of Course Evaluations—✱**Monnie McGee, Southern Methodist University

ML21 **How Do We Promote Quantitative Literacy Across the Undergraduate Curriculum, and How Will We Know if We Are Successful?—✱**A. John Bailer, Miami University

ML22 **Barriers to Teaching Introductory Statistical Inference—✱**Mark Berenson, Montclair State University

159 HY-Capitol Ballroom 4
Section on Statistical Graphics Roundtable with Lunch (fee event)
Section on Statistical Graphics

Organizer(s): Steven N. MacEachern, The Ohio State University

ML23 **Data Visualization for the Masses—✱**Diane Lambert, Google, Inc.

160 HY-Capitol Ballroom 4

Section on Statisticians in Defense and National Security Roundtable with Lunch (fee event)

Section on Statisticians in Defense and National Security

Organizer(s): Myron Katzoff, Centers for Disease Control and Prevention

ML24 **Statistical Support for Public Health Preparedness and Medical Emergency Response—✱**Myron Katzoff, Centers for Disease Control and Prevention

161 HY-Capitol Ballroom 5

Section on Statistics in Epidemiology Roundtable with Lunch (fee event)

Section on Statistics in Epidemiology

Organizer(s): Amy H. Herring, The University of North Carolina at Chapel Hill

ML25 **Analysis of Longitudinal Complex Survey Data Sets—✱**Punam Pahwa, University of Saskatchewan

162 HY-Capitol Ballroom 5

Section on Survey Research Methods Roundtable with Lunch (fee event)

Section on Survey Research Methods

Organizer(s): Elaine Zanutto, National Analysts Worldwide Research and Consulting

ML26 **Election Statistics Results—✱**Wendy Rotz, Ernst & Young LLP

163 HY-Capitol Ballroom 5

Social Statistics Section Roundtable with Lunch (fee event)

Social Statistics Section

Organizer(s): Kathleen S. O'Connor, Centers for Disease Control and Prevention

ML27 **Delving into Multiple Methods To Examine the Relationship Between Psychological Measurement and Empirical Outcome—✱**Gideon D. Bahn, Loyola University Chicago; Martha E. Wynne, Loyola University Chicago; Mary Satchwell, Loyola University Chicago

Special Presentation 2:00 p.m.–3:50 p.m.

164 CC-605

Late-Breaking Session I: The Accuracy of Election Polls—Other

ASA, ENAR, IMS, SSC, WNAR, Section on Survey Research Methods, Scientific and Public Affairs Advisory Committee, Social Statistics Section

Organizer(s): David A. Marker, Westat, Inc.

Chair(s): David A. Marker, Westat, Inc.

2:05 p.m. **Evaluating the Performance of the 2008 Pre-Election Polls in the Primaries—✱**Michael W. Traugott, The University of Michigan

2:30 p.m. **Sources of Variation in Pre-Election Polling—✱**Cliff Zukin, Rutgers, The State University of New Jersey

2:55 p.m. **Understanding and Communicating Sources of Measurement and Operational Error in Opinion Polls: Beyond Sampling Error—**Kathleen A. Frankovic, CBS News

3:20 p.m. Disc: Clyde Tucker, Bureau of Labor Statistics

3:40 p.m. **Floor Discussion**

Invited Sessions 2:00 p.m.–3:50 p.m.

165 CC-702

● Semiparametric Regression and High-Dimensional Data—Invited

Section on Nonparametric Statistics, IMS, Section on Physical and Engineering Sciences, WNAR

Organizer(s): David Ruppert, Cornell University

Chair(s): Hua Liang, University of Rochester

2:05 p.m. **Semiparametric Modeling with Applications to Powerful Testing for Gene-Environment Interactions—✱**Raymond Carroll, Texas A&M University; Arnab Maity, Texas A&M University; Nilanjan Chatterjee, National Cancer Institute; Enno Mammen, University of Mannheim

2:30 p.m. **Functional Embedding for High-Dimensional Data—✱**Hans G. Müller, University of California, Davis

2:55 p.m. **Assist: A Suite of S Functions Implementing Spline-Smoothing Techniques—✱**Yuedong Wang, University of California, Santa Barbara; Chunlei Ke, Amgen, Inc.

3:20 p.m. **Bayesian Smoothness and Shrinkage Priors in Regression—✱**Ludwig Fahrmeir, University of Munich; Thomas Kneib, University of Munich

3:45 p.m. **Floor Discussion**

166 CC-607

● ▲ Challenges of Statistical Inference in 'Large p, Small n' Problems—Invited

Biometrics Section, Section on Nonparametric Statistics, Biopharmaceutical Section, Section on Statistics in Epidemiology, WNAR, IMS

Organizer(s): Annie Qu, Oregon State University

Chair(s): Annie Qu, Oregon State University

2:05 p.m. **Large P, Small N Asymptotics for Detecting Gene Interactions—✱**Michael Kosorok, The University of North Carolina at Chapel Hill; Shuangge Ma, Yale University

2:30 p.m. **Large Margin Hierarchical Classification—** Huxiang Wang, The University of Minnesota; **✱**Xiaotong Shen, The University of Minnesota; Wei Pan, The University of Minnesota

2:55 p.m. **Sufficient Dimension Reduction for Small N, Large P Regressions—✱**Lexin Li, North Carolina State University; R. Dennis Cook, The University of Minnesota; Chih-Ling Tsai, University of California, Davis

3:20 p.m. **Penalized Model-Based Clustering with Application to Microarray Data—✱**Wei Pan, The University of Minnesota; Benhuai Xie, The University of Minnesota; Xiaotong Shen, The University of Minnesota

3:45 p.m. **Floor Discussion**

167 CC-107

● ▲ Understanding and Improving Communication with Survey Respondents—Invited

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): Stanley R. Freedman, Energy Information Administration

Chair(s): Cynthia Clark, International Statistical Consultant

2:05 p.m. **Keeping Up with Survey Respondents—✱**Stanley R. Freedman, Energy Information Administration

2:30 p.m. **Communicating with Survey Respondents at the UK Office for National Statistics—✱**Jacqui Jones, The Office for National Statistics, UK; Ann Lewis, The Office for National Statistics, UK; Georgina Jones, The Office for National Statistics, UK; Jackie Byard, The Office for National Statistics, UK

2:55 p.m. **Customer and Respondent Outreach Initiatives at the Bureau of Labor Statistics—✱**William J. Wiatrowski, Bureau of Labor Statistics

3:20 p.m. Disc: Don Dillman, Washington State University

3:40 p.m. **Floor Discussion**

168 CC-102

● ▲Statistical Issues for Internet Marketing and Price Optimization—Invited

Section on Statistics and Marketing

Organizer(s): Stan Lipovetsky, GfK Custom Research North America

Chair(s): Raimund Wildner, GfK-Nürnberg

2:05 p.m. **Internet Advertising and Monetization—✱**Paul Dagum, Business.Com

2:30 p.m. **Online Ad Auctions—✱**Hal Varian, Google, Inc.

2:55 p.m. **Modeling Consumer Search for Making Online Advertising Decisions—✱**Alan Montgomery, Carnegie Mellon University

3:20 p.m. Disc: Wendy Moe, University of Maryland, College Park

3:40 p.m. **Floor Discussion**

169 CC-707

● Research in Health-Related Monitoring—Invited

Section on Quality and Productivity

Organizer(s): William Woodall, Virginia Polytechnic Institute and State University

Chair(s): Shannon Fraker, Joint Research and Development (JRAD)

2:05 p.m. **Research Issues and Ideas on Health-Related Surveillance—✱**William H. Woodall, Virginia Polytechnic Institute and State University

2:30 p.m. **Directionally Sensitive Multivariate Control Charts with an Application to Biosurveillance—✱**Inbal Yahav, University of Maryland, College Park; Galit Shmueli, University of Maryland, College Park

2:55 p.m. **Risk-Adjusted Monitoring of Survival Times—✱**Landon Sego, Pacific Northwest National Laboratory; Marion R. Reynolds, Jr., Virginia Polytechnic Institute and State University; William H. Woodall, Virginia Polytechnic Institute and State University

3:20 p.m. **Sparse Time Series Monitoring for Biosurveillance—✱**Howard S. Burkom, Johns Hopkins University; Yevgeniy Elbert, Johns Hopkins University

3:45 p.m. **Floor Discussion**

170 CC-703

● ▲ Home Field Advantage in Sports—Invited

Section on Statistics in Sports, Chance

Organizer(s): Michael J. Schell, Moffitt Cancer Center
Chair(s): James J. Cochran, Louisiana Tech University

2:05 p.m. **There's No Place Like Home: Estimating Intra-Conference Home Field Advantage in College Football Using a Longitudinal Model—✱**Byron Gajewski, Kansas University Medical Center

2:30 p.m. **Using Neutral Site Games To Understand Home Field Advantage: Is It Possible?—** Gary Simon, New York University; ✱Jeffrey Simonoff, New York University

2:55 p.m. **Coors Field: Why Is the Home Field Advantage so High and What Are Its Implications?—✱**Michael J. Schell, Moffitt Cancer Center; Dan Ayers, Vanderbilt University

3:20 p.m. Disc: James H. Albert, Bowling Green State University

3:40 p.m. **Floor Discussion**

171 CC-601

● Analysis of Massive Online Social Networks—Invited

Section on Statistical Computing, Section on Statisticians in Defense and National Security, Social Statistics Section

Organizer(s): Chris Volinsky, AT&T Labs - Research
Chair(s): Chris Volinsky, AT&T Labs - Research

2:05 p.m. **Cost-Effective Outbreak Detection in Networks—✱**Jure Leskovec, Carnegie Mellon University

2:30 p.m. **Data Analysis at Facebook—✱**Jeff Hammerbacher, Facebook

2:55 p.m. **Deriving Marketing Intelligence from Online Discussion—✱**Natalie Glance, Google - Pittsburgh

3:20 p.m. Disc: Peter Hoff, University of Washington

3:40 p.m. **Floor Discussion**

172 CC-708

● Applications of Copulas in Biostatistics and Statistical Genetics—Invited

ENAR, Biopharmaceutical Section, WNAR, SSC, Biometrics Section

Organizer(s): Kouros Owzar, Duke University
Chair(s): Kouros Owzar, Duke University

2:05 p.m. **A General Introduction to Frailty Models for Multivariate Survival Models and Induced Copula Structures—✱**David Oakes, University of Rochester

2:30 p.m. **Modeling Familial Association of Ages at Onset in the Presence of Competing Risk—✱**Joanna Shih, National Cancer Institute

2:55 p.m. **Quantitative Trait Linkage and Association Analysis Using Gaussian Copulas—✱**Mingyao Li, University of Pennsylvania; Michael Boehnke, The University of Michigan; Goncalo Abecasis, The University of Michigan; Peter Song, University of Waterloo

3:20 p.m. Disc: Christian Genest, UniversitÈ Laval

3:40 p.m. **Floor Discussion**

Invited Panels 2:00 p.m.–3:50 p.m.

173 CC-202

● ▲ Are Disability Statistics Relevant and Useful for National Policies and Programs?—Invited

Committee on Statistics and Disability, Section on Government Statistics, Social Statistics Section, Scientific and Public Affairs Advisory Committee

Organizer(s): Mary J. Chamie, Population Associates, Inc.
Chair(s): Mary J. Chamie, Population Associates, Inc.

Panelists: ✱Siobhan Carey, Central Statistics Office

✱Michele J. Connolly, Sweetgrass Consulting LLC

✱Daniel Mont, World Bank

✱Susan Stobert, Statistics Canada

3:45 p.m. **Floor Discussion**

174 CC-109

● ▲ To the Nth Power: Younger Statisticians Taking the Lead—Invited

Social Statistics Section, Section on Government Statistics

Organizer(s): Juanita Tamayo Lott, U.S. Census Bureau

Chair(s): Martha Aliaga, The American Statistical Association

Panelists: ✱Nagambal Shah, Spelman College

✱Ben Hansen, The University of Michigan

✱Gayla Olbricht, Purdue University

✱Brian A. Millen, Eli Lilly and Company

3:45 p.m. **Floor Discussion**

175 CC-106

Pedagogical Issues in an Introductory Statistics Course—Invited

Section on Statistical Education

Organizer(s): Kim Gilbert, Georgia Gwinnett College

Chair(s): Christine Franklin, The University of Georgia

Panelists: ✱Carolyn Cuff, Westminster College

✱E. Jacquelin Dietz, Meredith College

✱Kim Gilbert, Georgia Gwinnett College

✱Robert Gould, University of California, Los Angeles

✱Thomas H. Short, Indiana University of Pennsylvania

3:45 p.m. **Floor Discussion**

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

176 CC-606

● New Statistical Methods and Challenges in Neurodegenerative Disease Research—Topic-Contributed

Section on Statistics in Epidemiology, WNAR, Biometrics Section

Organizer(s): Knashawn H. Morales, University of Pennsylvania

Chair(s): Knashawn H. Morales, University of Pennsylvania

2:05 p.m. **Evaluating the Accuracy of a Diagnostic Test When the Diagnostic Test Is Subject to Measurement Error Using an Internal Reliability Sample, with Applications to Alzheimer's Disease—**✱Sharon X. Xie, University of Pennsylvania; Christopher M. Clark, University of Pennsylvania

2:25 p.m. **Biologically Driven Data Reduction of Patterns of Change Seen on Structural Imaging—**✱Danielle Harvey, University of California, Davis; Laurel A. Beckett, University of California, Davis

2:45 p.m. **Comparison of Biomarkers for Alzheimer's Disease Progression: Insights from the Alzheimer's Disease Neuroimaging Initiative—**Laurel A. Beckett, University of California, Davis; ✱Hao Zhang, University of California, Davis

3:05 p.m. **Models for Identifying Risk Factors for Transitions from Intact Cognition to Mild Cognitive Impairment and Dementia—**✱Richard Kryscio, University of Kentucky; Lei Yu, University of Kentucky; Suzanne Tyas, University of Waterloo; David Snowdon, University of Kentucky

3:25 p.m. Disc: Sujuan Gao, Indiana University School of Medicine

3:45 p.m. **Floor Discussion**

177 CC-603

● ▲ Adaptive Design and Dose-Finding in Clinical Trials—Topic-Contributed

Biopharmaceutical Section, Section on Risk Analysis, WNAR, Biometrics Section

Organizer(s): James Bolognese, Merck Research Laboratories

Chair(s): Bret J. Musser, Merck Research Laboratories

2:05 p.m. **Normal Dynamic Linear Model for Dose-Finding in a Phase II Bayesian Adaptive Trial—**✱Jason T. Connor, Berry Consultants; Scott M. Berry, Berry Consultants; Donald A. Berry, The University of Texas M.D. Anderson Cancer Center

2:25 p.m. **Adaptive Dose Selection Using Interim Analyses When Fitting a Bayesian Emax Model to Clinical Trial Data—**✱Neal Thomas, Pfizer, Inc.; Byron Jones, Pfizer, Inc.; Patrick Johnson, Pfizer, Inc.; Helen Richardson, Pfizer, Inc.

2:45 p.m. **Response-Adaptive Dose Finding Combing Multiple Comparison and Modeling Approaches—**✱Frank Bretz, Novartis Pharmaceuticals; Jose Pinheiro, Novartis Pharmaceuticals; Bjoern Bornkamp, University of Dortmund

3:05 p.m. **Comparing a Bayesian Approach with the Frequentist T-Statistic Method in Adaptive Dose-Finding Trials—✱**Nitin R. Patel, Cytel Inc.; James Bolognese, Merck Research Laboratories; Inna Perevozskaya, Merck Research Laboratories; Robert B. Smith, Cytel Inc.

3:25 p.m. Disc: Brenda Gaydos, Eli Lilly and Company

3:45 p.m. **Floor Discussion**

178 CC-110

● Bayesian Bioinformatics and Bayesian Biostatistics—Topic-Contributed

Section on Bayesian Statistical Science, Biopharmaceutical Section, WNAR

Organizer(s): Lynn Kuo, University of Connecticut

Chair(s): Fang Yu, University of Nebraska

2:05 p.m. **Combining Classifiers To Select Differentially Expressed Genes for Microarray Data—✱**Lynn Kuo, University of Connecticut; Wangang Xie, University of Connecticut; Yifang Zhao, University of Connecticut

2:25 p.m. **Detection of Copy Number Variations from High-Density SNP Arrays: An Integrated Bayesian Hidden Markov Model Approach Incorporating Pedigree Information—✱**Zhen Chen, University of Pennsylvania; Mahlet Tadesse, Georgetown University; Kai Wang, University of Pennsylvania; Mingyao Li, University of Pennsylvania

2:45 p.m. **Reexamine Bayes Factor Methods for Bayesian Phylogenetic Inference—**Ming-Hui Chen, University of Connecticut; Yu Fan, University of Connecticut; Paul O. Lewis, University of Connecticut; Lynn Kuo, University of Connecticut; ✱Wangang Xie, University of Connecticut

3:05 p.m. **Incorporating Structural Equation Modeling to Fecundity Models—✱**Sung Duk Kim, National Institute of Child Health and Human Development; Rajeshwari Sundaram, National Institutes of Health; Germaine B. Louis, National Institute of Child Health and Human Development

3:25 p.m. **Statistical Methods for Analysis of Genomic Data with Graphical Structures—✱**Caiyan Li, University of Pennsylvania; Hongzhe Li, University of Pennsylvania

3:45 p.m. **Floor Discussion**

179 CC-111

Section on Health Policy Statistics Student Paper Award Winners—Topic-Contributed

Section on Health Policy Statistics, Section on Nonparametric Statistics

Organizer(s): Mary Beth Landrum, Harvard Medical School

Chair(s): Mary Beth Landrum, Harvard Medical School

2:05 p.m. **An Algorithm for Optimal Tapered Matching, with Application to Disparities in Survival—✱**Shoshana R. Daniel, University of Pennsylvania; Katrina Armstrong, University of Pennsylvania; Jeffrey H. Silber, University of Pennsylvania; Paul R. Rosenbaum, University of Pennsylvania

2:25 p.m. **Estimating the Capacity for Improvement in Risk Prediction with a Marker—✱**Wen Gu, University of Washington

2:45 p.m. **A Class of Semiparametric Mixture Cure Survival Models with Dependent Censoring—✱**Megan Othus, Harvard University/Dana Farber Cancer Institute; Yi Li, Harvard University/Dana Farber Cancer Institute; Ram C. Tiwari, National Cancer Institute

3:05 p.m. **A New Synthesis Method for Multiple Linear Regression—✱**Nan Hu, University of Washington

3:25 p.m. **Semiparametric Efficient Estimator for Incomplete Longitudinal Binary Data with Application to Smoking Trends—✱**Jamie Perin, The University of North Carolina at Chapel Hill

3:45 p.m. **Floor Discussion**

180 CC-709

Environmental Risk: Risk Assessment and Dose-Response Models—Topic-Contributed

Section on Risk Analysis, Section on Statistics in Epidemiology

Organizer(s): Susan J. Simmons, The University of North Carolina, Wilmington

Chair(s): Colleen Kelly, Exponent, Inc.

2:05 p.m. **Estimating Daily Growth Estimates of Ride Tide Algae—✱**Susan J. Simmons, The University of North Carolina, Wilmington; Alaina Houmard, The University of North Carolina, Wilmington

2:25 p.m. **Empirical Evaluation of Sufficient Similarity**

in Dose-Response for Environmental Risk Assessment of a Mixture of 11 Pyrethroids—✱LeAnna G. Stork, Monsanto Company; Chris Gennings, Virginia Commonwealth University; Scott Marshall, Virginia Commonwealth University; Mike DeVito, U.S. Environmental Protection Agency; Kevin M. Crofton, U.S. Environmental Protection Agency

2:45 p.m. **Model Averaging of Dosages from Toxicology Studies: Approaches and Pitfalls—**✱Edward L. Boone, Virginia Commonwealth University

3:05 p.m. **Low-Dose Extrapolation from Points of Departure or from Model-Averaged Estimates—**✱A. John Bailer, Miami University; Matthew Wheeler, Centers for Disease Control and Prevention

3:25 p.m. Disc: Mehmet Sahinoglu, Troy University Montgomery

3:45 p.m. **Floor Discussion**

181 CC-104

▲ Getting It Real: Encouraging Critical Thinking Through Exposure to Reality—Topic-Contributed

Section on Statistical Education

Organizer(s): David Zeitler, Grand Valley State University
Chair(s): David Zeitler, Grand Valley State University

2:05 p.m. **How To Structure Effective Semester-Long Group Projects for Applying and Integrating Course Concepts—**✱Douglas M. Andrews, Wittenberg University

2:25 p.m. **Utilizing Projects in Teaching Statistics to Professional Students: Successes and Challenges—**✱Heather M. Bush, University of Kentucky

2:45 p.m. **Student Generated Data vs. Teacher Supplied Real Data vs. Teacher Created Data—**✱Steven Dafilou, Springside School

3:05 p.m. **Using Real Data To Teach Statistics—**✱Paulette Ceesay, Merck & Co., Inc.

3:25 p.m. **Encouraging Statistical Thinking Through the Writing of Newspaper Articles—**✱Meike Niederhausen, University of Portland

3:45 p.m. **Floor Discussion**

182 CC-706

● ▲ Statistical Science Applications in National Security: A Session in Honor of Professor Donald P. Gaver—Topic-Contributed

Section on Statisticians in Defense and National Security

Organizer(s): Ronald D. Fricker, Jr., Naval Postgraduate School
Chair(s): Ronald D. Fricker, Jr., Naval Postgraduate School

2:05 p.m. **Donald Gaver's Contributions to Reliability Theory and Applications—**✱Francisco J. Samaniego, University of California, Davis

2:25 p.m. **Uncertain Time-Critical Tasking Problems—**✱Kevin D. Glazebrook, Lancaster University

2:45 p.m. **Heavy Traffic Analysis of Real-Time Queues—**✱John Lehoczky, Carnegie Mellon University; Kavita Ramanan, Carnegie Mellon University; Steven Shreve, Carnegie Mellon University; Lukasz Kruk, Maria Curie-Sklodowska University

3:05 p.m. **Analytical Challenges in Defense Test and Evaluation—**✱Ernest A. Seglie, Office of the Secretary of Defense

3:25 p.m. Disc: Patricia Jacobs, Naval Postgraduate School

3:45 p.m. **Floor Discussion**

183 CC-113

Collecting Spatial Data—Topic-Contributed

Section on Statistics and the Environment, Section on Physical and Engineering Sciences, Section on Survey Research Methods

Organizer(s): Werner G. Mueller, Johannes Kepler University
Chair(s): Patrick E. Murphy, University College Dublin

2:05 p.m. **Spatial Multipurpose Designs—**✱Werner G. Mueller, Johannes Kepler University

2:25 p.m. **On the Effect of Collocation on the Quality of Multivariate Spatial Prediction—**✱Dale Zimmerman, The University of Iowa

2:45 p.m. **Sampling Strategies for Estimating the Spatial Mean of Temporal Trends—**✱Dick Brus, Wageningen University and Research Centre, Alterra

3:05 p.m. **Spatial Network Design To Detect Regional Trends in PM2.5—**✱Zhengyuan Zhu, The University of North Carolina at Chapel Hill

3:25 p.m. **Spatial Sampling Design Using Support Vector Machines—**✱Mikhail Kanevski, Institute of Geomatics and Analysis of Risk; Alexei Pozdnoukhov, Institute of Geomatics and Analysis of Risk

3:45 p.m. **Floor Discussion**

184 CC-710

● ▲ Development and Validation of Biomarkers—Topic-Contributed

WNAR, Section on Statistics in Epidemiology, Biometrics Section

Organizer(s): Hyun Jung (Grace) Kim, University of California, Los Angeles

Chair(s): Constantine Gatsonis, Brown University

2:05 p.m. **Imaging Endpoints for Clinical Trials: The Sharp Score for Radiographic Data in Rheumatoid Arthritis—✱**Grace S. Park, Amgen, Inc.

2:25 p.m. **Evaluation Process of Imaging Biomarker: Quantitative Lung Fibrosis (QLF) Score for Computer Tomography (CT) Data in Interstitial Lung Disease—✱**Hyun Jung (Grace) Kim, University of California, Los Angeles; Gang Li, University of California, Los Angeles

2:45 p.m. **Statistical Issues in Discovery and Validation of Genomic Biomarkers for Medical Prognosis and Drug Development—✱**MyungShin Oh, Baxter Healthcare Corp.

3:05 p.m. **Enrichment Design and Statistical Inference for Cancer Biomarker Validation Study—✱**Xiaofei Wang, Duke University Medical Center; Haibo Zhou, The University of North Carolina at Chapel Hill

3:25 p.m. Disc: Guoxing (Greg) Soon, U.S. Food and Drug Administration

3:45 p.m. **Floor Discussion**

Topic-Contributed Panels 2:00 p.m.–3:50 p.m.

185 CC-704

Responding to New Challenges: Statistics in Clinical and Translational Science—Topic-Contributed

Biometrics Section, Biopharmaceutical Section, Section on Teaching Statistics in the Health Sciences, WNAR, Section on Health Policy Statistics

Organizer(s): Laura L. Johnson, National Center for Complementary and Alternative Medicine

Chair(s): Laura L. Johnson, National Center for Complementary and Alternative Medicine

Panelists: ✱Knut M. Wittkowski, The Rockefeller University

✱J. Philip Miller, Washington University School of Medicine

✱Frank E. Harrell, Jr., Vanderbilt University

✱Sally Thurston, University of Rochester

3:45 p.m. **Floor Discussion**

Contributed Sessions 2:00 p.m.–3:50 p.m.

186 CC-103

● Small-Area Estimates—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Rachel M. Harter, National Opinion Research Center

2:05 p.m. **The False Discovery Rate in ACS: Helping Users Understand Estimates for Small Domains—✱**Robert E. Fay, Westat, Inc.

2:20 p.m. **Spatial Modeling and Prediction of County-Level Employment Growth Rate Data—✱**Nadarajasundaram Ganesh, National Opinion Research Center

2:35 p.m. **Small-Area Estimation for Alcohol Drinking Among Teenagers—✱**Hsing-Yi Chang, National Health Research Institutes; Yu-Wen Wen, National Health Research Institutes

2:50 p.m. **Benchmarked Hierarchical Bayesian Posterior Predictive Model Selection—✱**Lu Lu, Iowa State University; Michael D. Larsen, Iowa State University

3:05 p.m. **Further Developments in a Hierarchical Bayes Approach to Small-Area Estimation of Health Insurance Coverage: State-Level Estimates for Demographic Groups—✱**Steven Riesz, U.S. Census Bureau; Mark Bauder, U.S. Census Bureau; Donald M. Luery, U.S. Census Bureau

3:20 p.m. **The Connection Between Bayesian- and Resampling-Based Inference in Small-Area Models—✱**Snigdhansu Chatterjee, The University of Minnesota

3:35 p.m. **Floor Discussion**

187 CC-105

● Sampling Frames—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Christopher H. Johnson, Centers for Disease Control and Prevention

2:05 p.m. **GeoFrame: A Technological Advancement in Field Enumeration—✱**Joseph P. McMichael, RTI International; Leslie Athey, RTI International; Brian Evans, RTI International; Victoria Albright, RTI International

2:20 p.m. **Using Digital Imagery To Update the Measures of Size of Area Segments—✱**Lee Harding, Westat, Inc.; Sylvia Dohrmann, Westat, Inc.; Lin Li, Westat, Inc.; Lester R. Curtin, Centers for Disease Control and Prevention

2:35 p.m. **Success Using an Age-Targeted List Sample for the National Immunization Survey - Adult—✱**Steven Pedlow, National Opinion Research Center; Hee-Choon Shin, National Opinion Research Center; Ashley Amaya, National Opinion Research Center; Gary L. Euler, National Center for Immunization and Respiratory Diseases; Meena Khare, National Center for Health Statistics

2:50 p.m. **Challenges and Methods in Creating Secondary Sampling Units for Area Probability Samples—✱**Bryce Johnson, Westat, Inc.; Jill Montaquila, Westat, Inc.

3:05 p.m. **Assessing the Filter Rules for Extracting Addresses from the Master Address File To Construct a Housing Unit Frame for Current Demographic Surveys—✱**Joel Martin, U.S. Census Bureau; Clifford Loudermilk, U.S. Census Bureau

3:20 p.m. **Evaluating the American Community Survey as a Potential Sampling Frame for the National Survey of College Graduates—✱**John Finamore, U.S. Census Bureau; David Hall, U.S. Census Bureau

3:35 p.m. **Stratification and Allocation for the Estimation of a Complex Statistic with Auxiliary Data—✱**Serge Godbout, Statistics Canada

188 CC-604

● Variations on Designs—Contributed

Section on Statistics in Epidemiology, Section on Survey Research Methods, Biometrics Section

Chair(s): Nicole Close, EmpiriStat, Inc.

2:05 p.m. **Sampling Issues in Biomarker Studies of Nevus Phenotypes—✱**Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center

2:20 p.m. **Assessing the Impact of Intervention—✱**Shailendra N. Banerjee, Centers for Disease Control and Prevention

2:35 p.m. **Noncompliance-Corrected Effect of Randomized Highly Active Antiretroviral Therapy on Incident Aids or Death Using Inverse Probability-of-Censoring Weights—✱**Lauren E. Cain, Johns Hopkins Bloomberg School of Public Health; Stephen R. Cole, Johns Hopkins Bloomberg School of Public Health

2:50 p.m. **The Exposure-Controlled Retrospective Study: Application to High-Incidence Diseases—✱**Peng T. Liu, U.S. Food and Drug Administration

3:05 p.m. **Semiparametric-Efficient Estimation for Multistage Case-Control Studies—✱**Alastair J. Scott, University of Auckland; Alan J. Lee, University of Auckland; Chris J. Wild, University of Auckland

3:20 p.m. **A Steady-State Effect of a Cancer Screening Intervention—✱**Shih-Yuan Lee, The University of Michigan; Alexander Tsodikov, The University of Michigan

3:35 p.m. **Estimation in Hidden Population Using Social Network—✱**Yang Zhao, University of Regina

189 CC-602

● Applications in Statistical Consulting—Contributed

Section on Statistical Consulting

Chair(s): Helen Wu, The University of Texas Medical Branch

2:05 p.m. **Strategies for New Statisticians Venturing into the Real World—✱**Laura Vazquez, Shepherd Center

2:20 p.m. **A Total Health Care Costs Analysis for Multiple Sclerosis Patients: Lessons Learned, or How Could My Study Have Been More Efficient?—✱**Andrea McAllister, Highmark Inc.

2:35 p.m. **Percent Effort vs. Fee-for-Service: Communicating with Investigators About Cost Recovery—✱**Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center; Francis W. DeAngelis, The Children's Hospital of Philadelphia

2:50 p.m. **Innovative Application of Statistics to Studies from Academic Medical Centers—✱**Jayawant Mandrekar, Mayo Clinic

3:05 p.m. **How Are Mathematics GPA and Several Other Factors Related to University Time-to-Graduation?—✱**Xiaohui S. Wang, The University of Texas-Pan American

3:20 p.m. **Estimation of the Correlation Coefficient of Left-Censored and Repeated Measures Data—✱**Agustin Calatroni, Rho, Inc.; Cindy Visness, Rho, Inc.; Herman Mitchell, Rho, Inc.

3:35 p.m. **Parameter Selection for SUP Clustering Algorithm—✱**Ting-Li Chen, Institute of Statistical Science, Academia Sinica; Shang-Ying Shiu, Institute of Statistical Science, Academia Sinica

190 CC-701

Bayesian and Likelihood Inference—Contributed

Section on Statistical Computing, Section on Bayesian Statistical Science

Chair(s): Ginger Davis, University of Virginia

2:05 p.m. **Bayesian Scale Space Analysis of Image Differences—✱**Leena A. Pasanen, University of Oulu; Lasse Holmström, University of Oulu

2:20 p.m. **Bayesian Inference for Measures of Model Fit—✱**Joseph Retzer, Maritz Research

2:35 p.m. **Bayesian Nonparametric Model for fMRI of the Visual Cortex—✱**Raymond G. Hoffmann, Medical College of Wisconsin; Nicholas M. Pajewski, Medical College of Wisconsin; Edward A. DeYoe, Medical College of Wisconsin; Daniel B. Rowe, Medical College of Wisconsin

2:50 p.m. **Bayesian and Non-Bayesian Approaches to Sample Size Determination—✱**Junheng Ma, Case Western Reserve University; Jiayang Sun, Case Western Reserve University; Joe Sedransk, Case Western Reserve University

3:05 p.m. **Large Gaussian Covariance Matrix Estimation with Markov Structure—✱**Xinwei Deng, Georgia Institute of Technology; Ming Yuan, Georgia Institute of Technology

3:20 p.m. **Simulation-Based Visualization of Inference Functions—✱**Daeyoung Kim, The Pennsylvania State University; Bruce G. Lindsay, The Pennsylvania State University

3:35 p.m. **Identifying Statistically Significant Clusters—✱**Ranjan Maitra, Iowa State University; Volodymyr Melnykov, Iowa State University

191 CC-705

● Advances in Modeling Physical Data—Contributed

Section on Physical and Engineering Sciences, Section on Nonparametric Statistics

Chair(s): Jeffery J. Luner, The Boeing Company

2:05 p.m. **Divergence-Based Kernel for Spectrum Classification and Its Applications—✱**Tsukasa Ishigaki, The Institute of Statistical Mathematics; Tomoyuki Higuchi, The Institute of Statistical Mathematics

2:20 p.m. **Smoothing Spectral Data—✱**Tom Burr, Los Alamos National Laboratory; Scott Garner, Los Alamos National Laboratory; Nicolas Hengartner, Los Alamos National Laboratory; Steve Myers, Los Alamos National Laboratory

2:35 p.m. **Inference for Multi-Piecewise Regression Using the Bootstrap—✱**Trevor Craney, Shell E&P

2:50 p.m. **Splines with Bounded Extrapolation—✱**Spencer Graves, PDF Solutions

3:05 p.m. **Fast FSR Methods for Second-Order Linear Regression Models—✱**Hugh B. Crews, North Carolina State University; Dennis Boos, North Carolina State University; Leonard Stefanski, North Carolina State University

3:20 p.m. **Interpreting Spline Fits via the Coefficients of Local Taylor Approximations—✱**Sundar Dorai-Raj, PDF Solutions; Spencer Graves, PDF Solutions

3:35 p.m. **Floor Discussion**

192 CC-101

Data Modeling—Contributed

Section on Government Statistics, Section on Survey Research Methods, Social Statistics Section

Chair(s): Eugene M. Burns, Energy Information Administration

2:05 p.m. **SAIPE County Poverty Models Using Data from the American Community Survey—**Wesley Basel, U.S. Census Bureau; ✱David Powers, U.S. Census Bureau; Brett O'Hara, U.S. Census Bureau

2:20 p.m. **Model Utility in a Time Series with Interventions: A Case Study—**William L. Seaver, The University of Tennessee, Knoxville; ✱Joy Oliver, The University of Tennessee, Knoxville; David J. Woehr, The University of Tennessee, Knoxville; Brian K. Griepentrog, Fors Marsh Group

2:35 p.m. **Multivariate Analysis of Waiting and Treatment Time in Emergency Departments—✱**Abera Wouhib, National Center for Health Statistics; Myron Katzoff, Centers for Disease Control and Prevention; Meena Khare, National Center for Health Statistics

2:50 p.m. **Tracking Consumer Energy Price Change: An Overview of Federal Data Sources and Methodologies—✱**Janice Lent, Energy Information Administration; Joseph Ayoub, Energy Information Administration

3:05 p.m. **Estimating Valid Signatures on a Petition: Power To Choose Between W and A Goodman Type—✱**Mark E. Eakin, The University of Texas at Arlington; Mary M. Whiteside, The University of Texas at Arlington

3:20 p.m. **A Smoothing Approach to Data Masking—✱**Yijie Zhou, Merck & Co., Inc.; Francesca Dominici, Johns Hopkins University; Thomas A. Louis, Johns Hopkins University

3:35 p.m. **Floor Discussion**

193 CC-112

● Bayesian Methods for Missing Data—Contributed

Section on Bayesian Statistical Science, Section on Survey Research Methods, Section on Health Policy Statistics

Chair(s): Anna Simoni, Toulouse School of Economics (GREMAQ)

2:05 p.m. **Bayesian Analysis for the Difference of Two Poisson Rates with Data Subject to Under-Reporting—✱**Brandi Greer, Baylor University; Dean Young, Baylor University; James Stamey, Baylor University

2:20 p.m. **A Bayesian Cox-Regression Model with Informative Censoring—✱**Niko Kaciroti, The University of Michigan

2:35 p.m. **Effects of Missing and Censored Data for Nonlinear Models Involving ODEs—**Sujit Ghosh, North Carolina State University; ✱Haojun Ouyang, North Carolina State University

2:50 p.m. **Multivariate Mixed-Effects Models for Imputing Panel Missingness in Longitudinal Administrative Data Sets—✱**Recai M. Yucel, SUNY-Albany

3:05 p.m. **Bayesian Semiparametric Density Regression with Measurement Error—✱**Ju-Hyun Park, The University of North Carolina at Chapel Hill; David Dunson, National Institute of Environmental Health Science

3:20 p.m. **Bayesian Variable Selection for Large Data Sets with Missing Covariates—✱**Jessica Z. Li, University of Florida; George Casella, University of Florida

3:35 p.m. **Floor Discussion**

194 CC-711

Estimation, Testing, and Clustering in High Dimensions—Contributed

IMS, Section on Nonparametric Statistics

Chair(s): Hugh Chipman, Acadia University

2:05 p.m. **Estimating Individual Effect Sizes and Local FDR in Multiple-Hypothesis Testing—✱**József Bukszár, Virginia Commonwealth University; Edwin J.C.G. van den Oord, Virginia Commonwealth University

2:20 p.m. **Exact Calculations of Expected Power for the Benjamini-Hochberg Procedure—✱**Deborah Glueck, University of Colorado Denver; Jan Mandel, University of Colorado Denver; Anis Karimpour-Fard, University of Colorado Denver; Lawrence Hunter, University of Colorado Denver; Keith E. Muller, University of Florida

2:35 p.m. **Step-Up Tests for Number of Active Effects in Orthogonal Saturated Designs—✱**Samuel S. Wu, University of Florida; Weizhen Wang, Wright State University

2:50 p.m. **G-PLUS Algorithm for Concave-Penalized Negative Likelihood Selection—✱**Wenhua Jiang, Rutgers, The State University of New Jersey; Cun-Hui Zhang, Rutgers, The State University of New Jersey

3:05 p.m. **Model-Based Clustering with Nonparametric Maximum Likelihood—✱**Yeojin Chung, The Pennsylvania State University; Bruce G. Lindsay, The Pennsylvania State University; Jia Li, The Pennsylvania State University

3:20 p.m. **Adaptive Regularization Through Entire Solution Surface—✱**Seongho Wu, The University of Minnesota

3:35 p.m. **Floor Discussion**

195 CC-608

Multivariate Survival Analysis: Theory and Methods—Contributed

Biometrics Section, Section on Quality and Productivity, Section on Statistics in Epidemiology, WNAR

Chair(s): Jim Godbold, Mount Sinai School of Medicine

2:05 p.m. **The Analysis of Bivariate Truncated Data Using the Clayton Copula Model—✱**Antai Wang, Georgetown University

2:20 p.m. **Semiparametric Estimation with Correlated Recurrent Event Data Under Informative Monitoring—✱**Akim M. Adekpedjou, University of Missouri-Rolla; Jonathan Quiton, Western Kentucky University

2:35 p.m. **A Frailty Model in Crossover Studies with Time-to-Event Response Variable—✱**Ilya Shvartsman, The Pennsylvania State University, Harrisburg; Vernon Chinchilli, Pennsylvania State College of Medicine

2:50 p.m. **Marginal Hazards Regression for Case-Cohort Studies with Multiple Disease Outcomes—✱**Sangwook Kang, The University of Georgia; Jianwen Cai, The University of North Carolina at Chapel Hill

3:05 p.m. **Extension of Flowgraph Models with Covariates for Evaluating Effects of Kidney Retransplantation—✱**Ya-Hui Hsueh, Tulane University School of Public Health and Tropical Medicine; C. Lillian Yau, Tulane University School of Public Health and Tropical Medicine

3:20 p.m. **Prediction in Multivariate Survival Models—✱**M. Brent McHenry, Bristol-Myers Squibb Company; Stuart R. Lipsitz, Harvard Medical School; Debajyoti Sinha, Florida State University; Sundar Natarajan, VA New York Harbor Harbor Healthcare System

3:35 p.m. **Floor Discussion**

196 CC-108

Volatility—Contributed

Business and Economics Statistics Section, IMS

Chair(s): Rebecca J. Sela, Stern School of Business/New York University

2:05 p.m. **Autoregressive Models with Missing Data and Dependent Innovations—✱**Natalia Bahamonde, Pontifica Universidad Católica de ValparaÌso

2:20 p.m. **The Contribution of Jumps to Price Volatility in the Energy Futures Market—✱**Johan Bjursell, George Mason University; James E. Gentle, George Mason University; George H K. Wang, George Mason University

2:35 p.m. **GARCH Model with Non-I.I.D. Rescaled Errors—✱**Kazuhiko Shinki, University of Wisconsin-Madison

2:50 p.m. **Memory Structure in Stochastic Volatility Models—✱**Wen Li, Iowa State University; Cindy Yu, Iowa State University; Alicia Carriquiry, Iowa State University; Wolfgang Kliemann, Iowa State University

3:05 p.m. **How Potent Are News Reversals? Evidence from the Futures Markets—✱**Rohan A. Christie-David, University of Louisville; Arjun Chatrath, University of Portland; Kiseop Lee, University of Louisville

3:20 p.m. **Empirical Volatility and Seasonality Models for Electricity Futures Prices—✱**Hai Dong, University of South Carolina

3:35 p.m. **Filtering and Option Pricing with Transformation—✱**Hui Gong, Temple University; Aerambamoorthy Thavaneswaran, University of Manitoba; Jagbir Singh, Temple University

197 CC-712

Statistical Methods in Bioinformatics—Contributed

Biometrics Section, Biopharmaceutical Section, WNAR

Chair(s): Yangxin Huang, University of South Florida

2:05 p.m. **Bayes' Odds Estimation for Protein-Protein Interactions—✱**Julia L. Sharp, Clemson University; Kevin K. Anderson, Pacific Northwest National Laboratory; Don S. Daly, Pacific Northwest National Laboratory; John J. Borkowski, Montana State University; Gregory B. Hurst, Oak Ridge National Laboratory; William R. Cannon, Pacific Northwest National Laboratory

2:20 p.m. **Statistical Methods for Genetic Association Study in Admixed Population—✱**Qinyi Cheng, New York University; Mengling Liu, New York University; Yongzhao Shao, Iowa State University

2:35 p.m. **Partial Genomic Selection in Animal Populations—✱**Natascha Vukasinovic, Newsham Choice Genetics

2:50 p.m. **A Bayesian Approach To Estimate P(R) Curve from Small-Angle Scattering (SAS) Images—✱**Sudeshna Paul, Purdue University; Alan Friedman, Purdue University; Chris Bailey-Kellogg, Dartmouth College; Bruce Craig, Purdue University

3:05 p.m. **Disentangling the Selection Pressures Acting on Overlapping Reading Frames—✱**Karin S. Dorman, Iowa State University; Wei-Chen Chen, Iowa State University

3:20 p.m. **Prediction of Protein Inter-Domain Linker Regions by a Nonstationary Hidden Markov Model—✱**Kyounghwa Bae, American College of Radiology; Bani K. Mallick, Texas A&M University; Christine G. Elsik, Georgetown University

3:35 p.m. **Floor Discussion**

198 CC-610-612

● ▲ Issues Related to Clinical Endpoints and Biomarkers—Contributed

Biopharmaceutical Section, Section on Statistics in Epidemiology, WNAR, Biometrics Section

Chair(s): Rick Lewis, GlaxoSmithKline

2:05 p.m. **Do Opinions from Statisticians on Endpoints Count?—✱**Ling Chen, U.S. Food and Drug Administration

2:20 p.m. **Combining Biomarker Selection and Modeling in Early Clinical Development—✱**Alan Y. Chiang, Eli Lilly and Company

2:35 p.m. **Quantifying the Usefulness of PD Biomarkers in Phase II Screening Trials of Oncology Drugs—✱**Eric B. Holmgren, Genentech, Inc.

2:50 p.m. **Impact of Measurement Variability in PROs and How Under- or Over-Reporting of Extreme Valued Response May Influence Conclusions—✱**Tammy Massie, U.S. Food and Drug Administration

3:05 p.m. **Floor Discussion**

Contributed Poster Presentations 2:00 p.m.–3:50 p.m.

199 CC-F Lobby

Contributed Poster Presentations—Contributed

Biometrics Section, Biopharmaceutical Section, Business and Economics Statistics Section, IMS, Section on Bayesian Statistical Science, Section on Government Statistics, Section on Health Policy Statistics, Section on Physical and Engineering Sciences, Section on Risk Analysis, Section on Statistical Computing, Section on Statistical Consulting, Section on Statistical Graphics, Section on Statistics and Marketing, Section on Statistics in Epidemiology, Social Statistics Section, WNAR, Section on Nonparametric Statistics

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Applications and case studies

66 **Bayesian Optimal Design for Nonlinear Combinations of Parameters in Gaddum/Schild Model—✱**Zhongwen Tang, Kansas State University

67 **Symbolic Data Analysis Applied to Census Data—✱**Antonio Giusti, University of Florence; Laura Grassini, University of Florence

68 **An Adaptive, Two-Stage, Dose Exploration Design for the Estimation of a Human Colonizing Dose 50 (HCD50) and Human Colonizing Dose 90 (HCD90)—✱**Yu-Hui H. Chang, The University of Iowa; Kathryn Chaloner, The University of Iowa; Patricia Winokur, The University of Iowa; Michael Apicella, The University of Iowa; Wei Zhang, Boehringer Ingelheim Pharmaceuticals, Inc.

69 **Identification of Penicillium Species Using Discriminant Analysis—✱**James Slaven, National Institute for Occupational Safety and Health; Justin Hettick, National Institute for Occupational Safety and Health; Brett Green, Sporometrics; Amanda Buskirk, National Institute for Occupational Safety and Health; Don Beezhold, National Institute for Occupational Safety and Health; Michael Kashon, National Institute for Occupational Safety and Health

70 **Cluster Analysis and Predicting Transcription Factor Regulatory Network—✱**Dongseok Choi, Oregon Health & Science University; Zhixin Kang, University of Illinois at Chicago; George C. Tiao, The University of Chicago

71 **Estimating Weekly Stocks of Other Oils—✱**Ruey-Pyng Lu, Energy Information Administration

72 **Autopsy Status of Homicide Victims and Medical Examiner/Coroner System in the United States in 1979–1994—✱**Hsiang-Ching Kung, National Center for Health Statistics; Xinhua Liu, Columbia University; Donna L. Hoyert, National Center for Health Statistics

73 **Comparisons of the Uses of Logistic and Probit Regression in the Aerospace and Biomedical Fields—✱**Peter Hovey, University of Dayton; Rafe Donahue, Vanderbilt University

74 **Equivalency Criteria in Pharmaceutical vs. Engineering Applications—✱**Elizabeth Whalen, The Boeing Company

75 **Power Transformations Based on Data from the National Health and Nutrition Examination Surveys—✱**Margaret D. Carroll, National Center for Health Statistics

76 **Analysis of the Growth Rate of Prostate-Specific Antigen of Prostate Cancer Patients by a Linear Spline Model with Mixed Effects—✱**Suyan Tian, Rockefeller University

77 **Applications of Nonclinical Biostatistics in Biotechnology Industry—✱**Priya Kulkarni, Genentech, Inc.

78 **Market Segmentation of Customers' Satisfaction and Their Willingness To Pay for the Cable TV Industry of the Chung-Hua Area in Taiwan—✱**Nai-Hua Chen, Chienkuo Technology University; Ching-Tong Wu, Chienkuo Technology University; Shu-jing Chiu, Chienkuo Technology University; Chung Tu, Chienkuo Technology University

79 **A Natural Experiment Examining Proximity to Emergency Department (ED) as a Predictor of Frequent ED Use Among Asthmatic Children in the Inner City—✱**Henry T. Bahnson, Rho, Inc.; Agustin Calatroni, Rho, Inc.; John Schwarz, Rho, Inc.; Herman Mitchell, Rho, Inc.

80 **Undergraduate Retention Using Cox Regression—✱**Barbara Warsavage, California State University, East Bay

Categorical, multivariate analysis

81 **An Algorithm for Estimating Power and Sample Size for Logistic Models with One or More Independent Variables of Interest—✱**Jay Northern, University of Arkansas for Medical Sciences; D. Keith Williams, University of Arkansas for Medical Sciences; Zoran Bursac, University of Arkansas for Medical Sciences

82 **Effect on Power of Categorizing Continuous Variables—✱**T. Robert Harris, The University of Texas School of Public Health

83 **An Organized Investigation of Sample Size in Independent and Paired Dichotomous Data—✱**Kang-Hsien Fan, University of Louisville; Linda J. Goldsmith, University of Louisville

84 **Ordinal Classification Approach Using Bagged Classification Trees and the Proportional Odds Model as Splitting Criteria—✱**Tobias Guennel, Virginia Commonwealth University

85 **Efficient Selection of Prototypes Using Expert Ratings—✱**William E. Miller, Centers for Disease Control and Prevention

86 **Assessing Regression Modeling with Ordinal Responses—✱**Kao-Tai Tsai, Bristol-Myers Squibb Company

87 **Exact Inference for Ordered and Nominal Categorical Data—✱**John D.S. Hwang, B.R.S.I.; James S. Lee, Daiichi Sankyo Pharma Development

88 **Development and Internal Validation of the Prediction Model To Identify Thrombotic Thrombocytopenic Purpura (TTP) Patients at Risk for Relapse—✱**Xiaoning Li, University of Oklahoma Health Science Center

89 **The Partition Logistic Regression Model—✱**Ying Liu, Virginia Polytechnic Institute and State University; Shi-shien Yang, Kansas State University

90 **College Desirability: A Multivariate Statistical Analysis—✱**Lindsay Moomaw, Miami University; Andrea Austin, Miami University; Terrell Felder, Miami University

Data mining and knowledge discovery, machine learning

91 **Discovering Sparse Covariance Structures with the Isomap—✱**Amy Wagaman, The University of Michigan

92 **Application of Transportation Problem to Prediction Model in Orthodontics—✱**Olena Tsvirkunova, Align Technology Inc.; Michael Zakharevich, Align Technology Inc.; Vadim Matov, Align Technology Inc.

93 **Neural Network Monitoring of Poisson Data—✱**Benjamin M. Adams, The University of Alabama; Yousef Al-Hammadi, The University of Alabama

94 **S-Plus and R Package for Least Angle Regression—✱**Tatiana Maravina, University of Washington; Tim Hesterberg, Google, Inc.; Chris Fraley, Insightful Corporation

95 **Support Vector Machines with Recursive Feature Elimination for the Creation of a Diagnostic Tool—✱**David H. Henderson, Insightful Corporation

Government statistics

96 **On Nigerian Statistical Capacity Building as a Panacea for Achieving Millennium Development Goals (MDGs)—✱**Dallah Hamadu, University of Lagos; Ray Okafor, University of Lagos

Transportation statistics

97 **Graphical Displays of Safety Performance Functions—✱**Barbara A. Bailey, San Diego State University

Invited Sessions 4:00 p.m.–5:50 p.m.

200 CC-Four Seasons Ballroom

ASA President's Invited Address—Invited

ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Peter A. Lachenbruch, Oregon State University
Chair(s): Peter A. Lachenbruch, Oregon State University

4:05 p.m. **Health Care Considerations for the Millennium—✱**Mark B. McClellan, American Enterprise Institute

5:45 p.m. **Floor Discussion**

▲Theme Session ● Applied Session ✱ Presenter **CC**-Colorado Convention Center **HY**-Hyatt Regency Denver

TUESDAY, AUGUST 5

Tours

TR06 - Saloons and Bordellos Tour
9:00 a.m.–11:30 a.m. CC-South Shuttle Bus Drop Off/14th & California

TR07 - Foothills Tour
9:00 a.m.–1:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

TR08 - Mile High Historical Tour
2:00 p.m.–6:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

Committee/Business Meetings & Other Activities

7:00 a.m.–8:30 a.m. HY-Mineral Hall A
Section on Statisticians in Defense and National Security Business Meeting
Chair(s): David Banks, Duke University

7:00 a.m.–8:30 a.m. Off Property
Cox Scholarship Race
Organizer(s): Marcia Ciol, University of Washington

7:00 a.m.–8:30 a.m. HY-Mineral Hall C
Ad Hoc Committee To Propose an Approach to Individual Accreditation Committee Meeting (closed)
Chair(s): Mary Batcher, Ernst & Young LLP

7:00 a.m.–8:30 a.m. HY-Quartz B
Scientific and Public Affairs Advisory Committee
Chair(s): David A. Marker, Westat, Inc.

7:00 a.m.–8:30 a.m. HY-Marble
***Technometrics* Editorial Board Meeting (closed)**
Chair(s): David M. Steinberg, Tel Aviv University

7:00 a.m.–8:30 a.m. HY-Capitol Ballroom 6
Brigham Young University Friends and Alumni Open House/Breakfast
Organizer(s): Del Scott, Brigham Young University

7:00 a.m.–8:30 a.m. HY-Sandstone
Committee on Statistics and Disability Annual Meeting
Chair(s): Michele J. Connelly, U.S. Social Security Administration

7:00 a.m.–8:30 a.m. HY-Granite C
Committee on Privacy and Confidentiality Annual Meeting
Chair(s): Alvan O. Zarate, National Center for Health Statistics

7:00 a.m.–8:30 a.m. HY-Agate A
Membership Surveys Committee (closed)
Chair(s): Tim Keyes, GE Capitol

7:00 a.m.–10:00 a.m. HY-Granite A
Section on Physical and Engineering Sciences Executive Committee Meeting
Chair(s): William Notz, The Ohio State University

7:00 a.m.–10:00 a.m. HY-Agate B
***Statistics in Biopharmaceutical Research* Journal Editorial Board (closed)**
Chair(s): David Banks, Duke University; Joseph Heyse, Merck Research Laboratories

7:00 a.m.–6:00 p.m. CC-F2 Lobby Office
Speaker Management Room

7:00 a.m.–10:00 p.m. CC-A Lobby
Cyber Center

7:30 a.m.–9:30 a.m. HY-Granite B
***Sequential Analysis* Journal Editorial Board's Breakfast Meeting (closed)**
Organizer(s): Nitis Mukhopadhyay, University of Connecticut

7:30 a.m.–10:00 a.m. HY-Capitol Ballroom 4
Council of Chapters Annual Business Meeting and Breakfast
Chair(s): B. Christine Clark, ReSearch Pharmaceutical Serivces, Inc.

7:30 a.m.–4:30 p.m. CC-A Lobby
JSM Main Registration

7:30 a.m.–4:30 p.m. CC-A Lobby
ASA Membership/Special Assistance/Press Desk

8:00 a.m.–12:00 p.m. HY-Quartz A
Committee of Presidents of Statistical Societies Meeting (closed)
Organizer(s): Madhuri S. Mulekar, University of South Alabama

8:00 a.m.–6:00 p.m. CC-Exhibit Hall A
Career Placement Service

8:00 a.m.–6:00 p.m. CC-Main Lobby
Denver Visitors Information Center

8:00 a.m.–6:00 p.m. CC-Exhibit Hall F
Exhibitor Lounge

8:00 a.m.–6:00 p.m. Off Property
Meeting Within a Meeting Workshop for K-12 Math and Science Teachers: 5-8 Strand (closed, separate registration required)
Chair(s): Martha Aliaga, The American Statistical Association

8:30 a.m.–10:20 a.m. CC-704
Introductory Overview Lecture: Harnessing Bibliographic Data
Organizer(s): James E. Gentle, George Mason University
Chair(s): James E. Gentle, George Mason University

8:30 a.m.–10:20 a.m. CC-111
ASA College Stat Bowl I
Organizer(s): Stephanie Cano, The University of Texas at San Antonio Chair(s): Stephanie Cano, The University of Texas at San Antonio

8:30 a.m.–10:30 a.m. HY-Agate C
***JASA* Editors Meeting (closed)**
Chair(s): David Banks, Duke University; Joseph Heyse, Merck Research Laboratories

8:30 a.m.–4:30 p.m. Off Property
Beyond AP Statistics (BAPS) Workshop for Experienced Teachers (closed, separate registration required)
Chair(s): Roxy Peck, California Polytechnic State University

9:00 a.m.–5:00 p.m. CC-A Lobby
ASA Marketplace

9:00 a.m.–6:00 p.m. CC-Exhibit Hall F
EXPO 2008

9:00 a.m.–6:00 p.m. CC-Exhibit Hall F
American Statistical Association Booth #101

10:30 a.m.–12:00 p.m. HY-Granite C
Statistical Programming Special Interest Group
Chair(s): Monica Johnston, University of California, San Francisco

10:30 a.m.–12:20 p.m. CC-111
ASA College Stat Bowl II
Organizer(s): Stephanie Cano, The University of Texas at San Antonio
Chair(s): Stephanie Cano, The University of Texas at San Antonio

11:00 a.m.–12:30 p.m. HY-Granite A
***JASA* Reviews Board Meeting (closed)**
Chair(s): Dalene Stangl, Duke University

12:00 p.m.–2:00 p.m. HY-Agate A
***The American Statistician* Editor's Lunch (closed)**
Chair(s): Peter Westfall, Texas Tech University; Janet Wallace, Texas Tech University

12:00 p.m.–2:00 p.m. HY-Mineral Hall A
***JASA* Joint Editorial Board Lunch (closed)**
Chair(s): David Banks, Duke University; Joseph Heyse, Merck Research Laboratories

12:30 p.m.–1:30 p.m. CC-101
Abraham Wald Prize in Sequential Analysis Ceremony (Open to All)
Organizer(s): Nitis Mukhopadhyay, University of Connecticut

12:30 p.m.–2:00 p.m. HY-Mineral Hall D-G
2008 ASA New Fellows Appreciation Luncheon (by invitation only)
Chair(s): Roderick J. Little, The University of Michigan

12:30 p.m.–2:00 p.m. HY-Granite B
***JCGS* Management Committee Meeting (closed)**
Chair(s): J. Lynn Palmer, The University of Texas M.D. Anderson Cancer Center; Janet Wallace, Texas Tech University

12:30 p.m.–4:30 p.m. CC-208
ENAR RAB/RECOM Luncheon Meeting (closed)
Organizer(s): Kathy Hoskins, ENAR

1:00 p.m.–2:30 p.m. HY-Agate B
Current Index to Statistics Management Committee (closed)
Chair(s): James E. Gentle, George Mason University

2:00 p.m.–3:00 p.m. CC-Four Seasons Ballroom
ASA Presidential Address and Awards Session Rehearsal (closed)

1:30 p.m.–3:00 p.m. HY-Granite C
Council of Chapters Traveling Course Committee Meeting
Chair(s): Glenn White, Ernst & Young LLP

2:00 p.m.–3:30 p.m. HY-Capitol Ballroom 1-2
Hawkes Learning Systems
Organizer(s): Brittany Walker, Hawkes Learning Systems

2:00 p.m.–4:00 p.m. HY-Agate C
ASA Finance Committee Meeting (closed)
Chair(s): Sastry Pantula, North Carolina State University

4:00 p.m.–5:00 p.m. HY-Capitol Ballroom 1-2
STATCOM: Students Providing Pro Bono Consulting to the Community
Organizer(s): Douglas Baumann, STATCOM at Purdue

4:00 p.m.–5:30 p.m. CC-206
Open Meeting on Accreditation of Statisticians Proposal
Chair(s): Mary Batcher, Ernst & Young LLP

4:00 p.m.–6:00 p.m. HY-Capitol Ballroom 4
Council of Chapters Workshop and Reception
Chair(s): John Hall, Mathematica Policy Research, Inc.

5:00 p.m.–7:00 p.m. HY-Agate B
Rice University Statistics Group Reception
Organizer(s): Phyllis Guerra, Rice University

5:00 p.m.–7:00 p.m. HY-Mineral Hall D-E
Section on Bayesian Statistical Science Mixer and Business Meeting
Chair(s): Ronald Christensen, University of New Mexico

5:00 p.m.–7:00 p.m. HY-Agate A
The Caucus for Women in Statistics Reception
Organizer(s): Marcia Ciol, University of Washington

5:00 p.m.–7:00 p.m. HY-Mineral Hall A
North Carolina State University Alumni and Friends
Organizer(s): Tom Gerig, North Carolina State University

5:30 p.m.–6:30 p.m. HY-Granite A
IMS Welcome Reception for Students and New Members
Organizer(s): Elyse Gustafson, Institute of Mathematical Statistics

5:30 p.m.–7:00 p.m. HY-Mineral Hall B
Section on Statistics in Epidemiology Social Mixer
Chair(s): William Barlow, Cancer Research and Biostatistics

5:30 p.m.–7:00 p.m. HY-Granite B
Section on Nonparametric Statistics Business Meeting
Chair(s): Ronald Randles, University of Florida

5:30 p.m.–7:00 p.m. CC-113
Section on Statistical Consulting Open Business Meeting
Chair(s): Brenda Gaydos, Eli Lilly and Company

5:30 p.m.–7:00 p.m. HY-Agate C
Committee on Gay and Lesbian Concerns in Statistics Social Meeting
Chair(s): Barry Johnson, Statistics of Income, IRS

5:30 p.m.–7:30 p.m. HY-Capitol Ballroom 6
Joint Section on Quality and Productivity and Physical Engineering Sciences Business Meeting and Mixer
Chair(s): Connie Borror, Arizona State University West; William Notz, The Ohio State University

5:30 p.m.–7:30 p.m. CC-202
Section on Government Statistics Business Meeting
Chair(s): Carol House, U.S. Department of Agriculture

5:30 p.m.–7:30 p.m. HY-Mineral Hall C
University of Michigan Biostatistics and Statistics Departments Joint Alumni Reception
Organizer(s): Vijay Nair, The University of Michigan; Roderick J. Little, The University of Michigan

5:30 p.m.–7:30 p.m. HY-Capitol Ballroom 7
Biopharmaceutical Section Mixer
Chair(s): Kannan Natarajan, Novartis Pharmaceuticals

6:00 p.m.–7:00 p.m. HY-Capitol Ballroom 3
STATCOM Network Business Meeting
Organizer(s): Andrea Rau, Purdue University

6:00 p.m.–7:00 p.m. CC-111
JSM 2010 Program Committee Orientation Meeting (closed)
Chair(s): Xuming He, University of Illinois at Urbana-Champaign

6:00 p.m.–7:30 p.m. HY-Capitol Ballroom 5
Committee on Minorities in Statistics Reception
Chair(s): Nagambal Shah, Spelman College

7:00 p.m.–7:30 p.m. CC-Four Seasons Ballroom
2008 ASA New Fellows Group Picture (closed)
Chair(s): Roderick J. Little, The University of Michigan

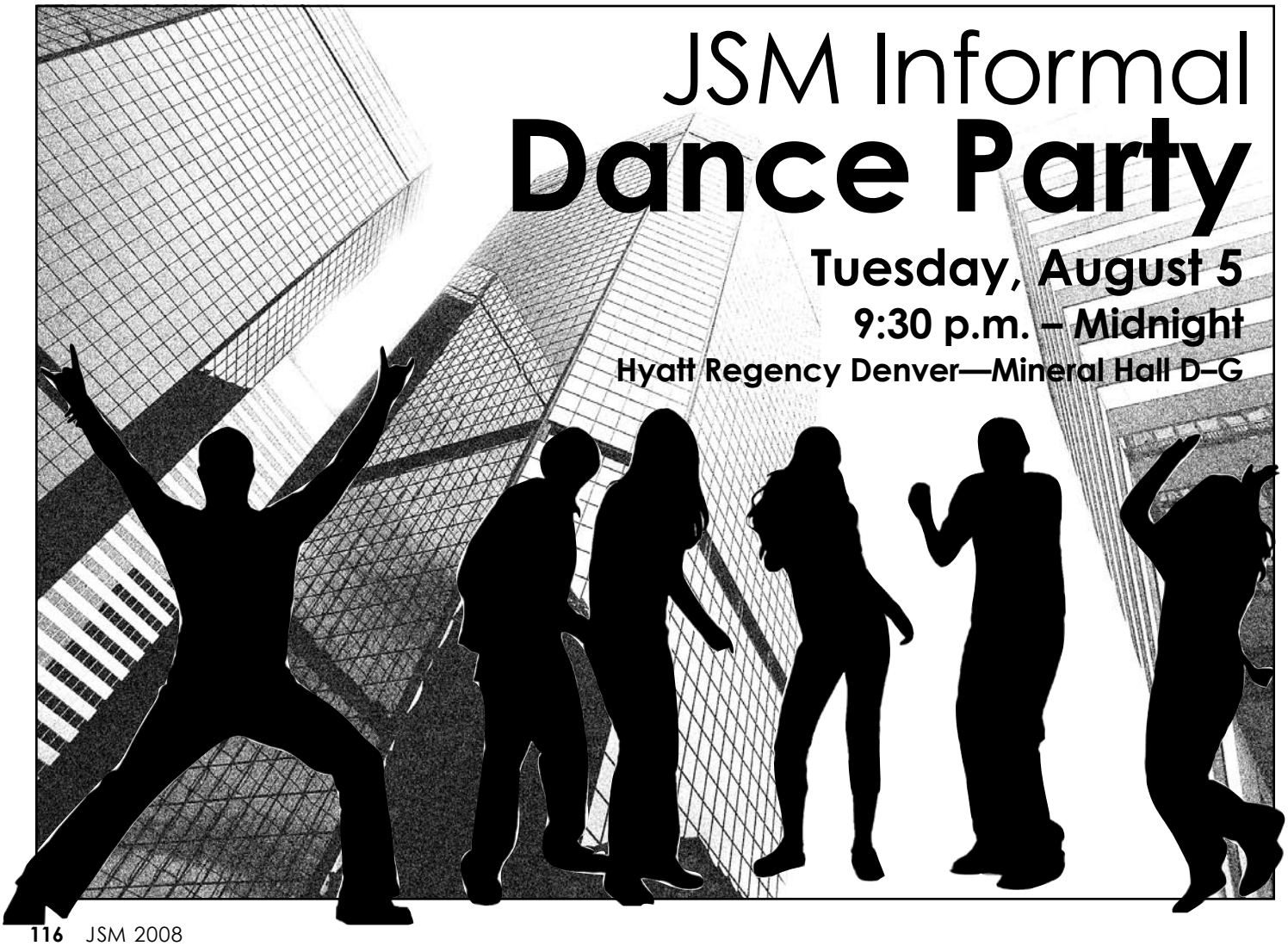
9:30 p.m.–12:00 a.m. HY-Mineral Hall D-G
JSM Informal Dance Party (all welcome, included in registration fee)

Continuing Education (Fee Events)

CE_21C
Analysis of Multivariate Failure Time Data
8:00 a.m.–12:00 p.m. CC-210-212
ASA
Instructor(s): Danyu Lin, The University of North Carolina at Chapel Hill

CE_22C
Fundamental Statistics Concepts in Presenting Data: Principles for Constructing Better Graphics
8:00 a.m.–12:00 p.m. CC-204
ASA, Section on Statistical Graphics
Instructor(s): Rafe Donahue, Vanderbilt University

CE_23C
Bayesian Methods and Software for Data Analysis
8:30 a.m.–5:00 p.m. CC-201
ASA, Section on Bayesian Statistical Science
Instructor(s): Bradley P. Carlin, The University of Minnesota; Thomas A. Louis, Johns Hopkins University



CE_24C
Models for Discrete Repeated Measures
8:30 a.m.–5:00 p.m. CC-203
ASA
Instructor(s): Geert Verbeke, K.U. Leuven; Geert Molenberghs, Hasselt University

CE_25C
Mixed Models for the Practicing Statistician
8:30 a.m.–5:00 p.m. CC-207
ASA, Section on Statistics and the Environment
Instructor(s): Linda J. Young, University of Florida; Ramon C. Littell, University of Florida

CE_26C
Multiple Imputation of Missing Data
8:30 a.m.–5:00 p.m. CC-205
ASA
Instructor(s): Paul D. Allison, University of Pennsylvania

CE_27C
Meta-Analysis: Statistical Methods for Combining the Results of Independent Studies
1:00 p.m.–5:00 p.m. CC-210-212
ASA
Instructor(s): Ingram Olkin, Stanford University

CE_28C
Analysis of Censored Health Outcomes Data: Developments for the Last 10 Years
1:00 p.m.–5:00 p.m. CC-204
ASA, Biopharmaceutical Section, Section on Health Policy Statistics
Instructor(s): Heejung Bang, Weill Medical College of Cornell University; Hongwei Zhao, University of Rochester

Roundtables with Coffee
7:00 a.m.–8:15 a.m.

201 CC-208
Section on Statistical Education Roundtable with Coffee (fee event)
Section on Statistical Education
Organizer(s): Peter Westfall, Texas Tech University
TL01 **Not Significantly Different: Nonstatisticians Who Teach College-Level Statistics—** ✱Patricia Rutledge, Allegheny College

202 CC-208
Section on Statistics and the Environment Roundtables with Coffee (fee event)
Section on Statistics and the Environment
Organizer(s): Andrew B. Lawson, University of South Carolina
TL02 **Statistics and the Intergovernmental Panel on Climate Change—**✱Peter Bloomfield, North Carolina State University
TL03 **What Would a Statistician Do with a Climate Model?—**✱Doug Nychka, National Center of Atmospheric Research

203 CC-208
Section on Statistics in Epidemiology Roundtable with Coffee (fee event)
Section on Statistics in Epidemiology
Organizer(s): Amy H. Herring, The University of North Carolina at Chapel Hill
TL04 **Statistical Analysis of Causal Intermediate Effects—**✱Giovanni Filardo, Baylor Research Institute; Cody Hamilton, Edwards Lifesciences

204 CC-208
Section on Health Policy Statistics Roundtable with Coffee (fee event)
Section on Health Policy Statistics
Organizer(s): Mary Beth Landrum, Harvard Medical School
TL05 **Prescription Drugs: Unsung Heroes of Disability—** ✱Michele J. Connolly, Sweetgrass Consulting LLC

205 CC-208
Section on Survey Research Methods Roundtable with Coffee (fee event)
Section on Survey Research Methods
Organizer(s): Elaine Zanutto, National Analysts Worldwide Research and Consulting
TL06 **Preventing Falsified Survey Data—**✱Steven Pedlow, National Opinion Research Center

206 CC-208

Section on Teaching Statistics in the Health Sciences Roundtable with Coffee (fee event)

Section on Teaching Statistics in the Health Sciences

Organizer(s): Carol Bigelow, University of Massachusetts Amherst

TL07 **A New Statistics Student: The Translational Researcher—✱**Carol Bigelow, University of Massachusetts Amherst; Penelope Pekow, University of Massachusetts Amherst

Special Presentation 8:30 a.m.–10:20 a.m.

207 CC-704

Introductory Overview Lecture: Harnessing Bibliographic Data—Other

ASA, ENAR, IMS, SSC, WNAR, Current Index to Statistics

Organizer(s): James E. Gentle, George Mason University

Chair(s): James E. Gentle, George Mason University

8:35 a.m. **Rejuvenating the Current Index to Statistics—✱**Hadley Wickham, Iowa State University

10:15 a.m. **Floor Discussion**

208 CC-111

ASA College Stat Bowl I—Other

ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Stephanie Cano, The University of Texas at San Antonio

Chair(s): Stephanie Cano, The University of Texas at San Antonio

Game 1—✱Thayasivam Umashanger, The University of Georgia; **✱**Jerzy Wieczorek, Portland State University; **✱**Anne M. Hansen, University of California, Riverside; **✱**Christopher J. Rigdon, Arizona State University

Game 2—✱Junheng Ma, Case Western Reserve University; **✱**John Garza, The University of Texas at San Antonio; **✱**Samsiddhi Bhattacharjee, University of Pittsburgh; **✱**Susan Buchman, Carnegie Mellon University

Game 3—✱Jing Xu, The University of Georgia; **✱**Dan Polhamus, The University of Texas at San Antonio; **✱**Hongyuan Cao, The University of North Carolina at Chapel Hill; **✱**Adam Molnar, Bellarmine University

Game 4—✱Yiying (Richard) Fan, Case Western Reserve University; **✱**Nicholas J. Johnson, Portland State University; **✱**Brian Hartman, Texas A&M University; **✱**Liang Hong, Indiana University Purdue University, Indianapolis

Invited Sessions 8:30 a.m.–10:20 a.m.

209 CC-102
Innovative and Controversial Approaches to Student Assessment—Invited

Section on Statistical Education

Organizer(s): Joan Garfield, The University of Minnesota
Chair(s): Joan Garfield, The University of Minnesota

8:35 a.m. **Dirk Gently's Guide to Holistic Assessment—**✱Andrew S. Zieffler, The University of Minnesota

8:55 a.m. **Grading Statistics Like Statisticians—**✱Daniel Kaplan, Macalester College

9:15 a.m. **Against Fairness—**✱George Cobb, Mt. Holyoke College

9:35 a.m. Disc: Beth Chance, California Polytechnic State University

9:55 a.m. Disc: John Holcomb, Cleveland State University

10:15 a.m. **Floor Discussion**

210 CC-607
● ▲ Statistical Challenges in Large-Scale Genetic and Genomic Studies—Invited

International Indian Statistical Association, Biopharmaceutical Section, WNAR, Chance

Organizer(s): Bhramar Mukherjee, The University of Michigan
Chair(s): Bhramar Mukherjee, The University of Michigan

8:35 a.m. **Are a Set of Microarrays Independent of Each Other?—**✱Bradley Efron, Stanford University

9:00 a.m. **Identifying Interactions and Model-Building in Genome-Wide Association Studies—**✱Charles Kooperberg, Fred Hutchinson Cancer Research Center

9:25 a.m. **Powerful Discovery of Genetic Associations in the Presence of Gene-Gene and Gene-Environment Interactions—**✱Nilanjan Chatterjee, National Cancer Institute; Julia Ciampa, National Cancer Institute; Idan Menashe, National Cancer Institute; Sheng Luo, Johns Hopkins University

9:50 a.m. **Efficient Statistical Analysis of Case-Control, Genome-Wide Association Study Data—**✱Michael Boehnke, The University of Michigan

10:15 a.m. **Floor Discussion**

211 CC-103
● ▲ Manifold Learning and Object-Oriented Data Analysis—Invited

IMS, Section on Nonparametric Statistics

Organizer(s): Haonan Wang, Colorado State University
Chair(s): Tao Huang, University of Virginia

8:35 a.m. **Curve and Surface Fitting: From the Viewpoint of Manifold Recovery—**Edwin Chong, Colorado State University; Hari Iyer, Colorado State University; ✱Thomas Lee, Chinese University/Colorado State University; Haonan Wang, Colorado State University

9:05 a.m. **Object-Oriented Data Analysis of Tree-Structured Objects, Random Graphs, and Manifolds—**✱Haonan Wang, Colorado State University

9:35 a.m. **Simple Statistics on Interesting Spaces: Regression Analysis on Manifolds for Computational Anatomy—**✱Sarang Joshi, The University of Utah; P. Thomas Fletcher, The University of Utah; Brad Davis, The University of North Carolina at Chapel Hill

10:05 a.m. **Floor Discussion**

212 CC-712
● ▲ Statistics Can Help Reduce Child Mortality—Invited

Social Statistics Section, Section on Government Statistics, Section on Quality and Productivity, Section on Survey Research Methods, Scientific and Public Affairs Advisory Committee, Section on Health Policy Statistics, Section on Statistics in Epidemiology, Chance

Organizer(s): David J. Fitch, Universidad Rafael LandÌvar
Chair(s): Gary Shapiro, Westat, Inc.

8:35 a.m. **Child Survival Theory and Practice: How Do They Match?—**✱Gareth Jones, Adeni Consulting

9:00 a.m. **Child Mortality: What We Count Counts—**✱Jef L. Leroy, National Institute of Public Health; Jean-Pierre Habicht, Cornell University; Juan Rivera, National Institute of Public Health

9:25 a.m. **How Can Statistics Save Lives?—**✱Megan Price, Emory University

9:50 a.m. **Corruption Networks: Why Millions of Children Are Dying Needlessly—**✱David J. Fitch, Universidad Rafael LandÌvar

10:15 a.m. **Floor Discussion**

213 CC-708

● Theory and Applications of Generalized Confidence Intervals—Invited

Section on Physical and Engineering Sciences, IMS

Organizer(s): Richard K. Burdick, Amgen, Inc.

Chair(s): Richard K. Burdick, Amgen, Inc.

8:35 a.m. **Generalized Fiducial Inference—**✱Jan Hannig, The University of North Carolina at Chapel Hill

9:00 a.m. **Generalized Confidence Intervals for Normal Orthant Probabilities—**✱Thomas Mathew, University of Maryland, Baltimore County; David Webb, U.S. Army Research Laboratory

9:25 a.m. **Using Generalized Confidence Intervals To Estimate Misclassification Rates of Bullet Lead Data—**✱Connie Borror, Arizona State University West

9:50 a.m. **Assessing Equivalence of Two Assays Using Sensitivity and Specificity—**✱Jorge Quiroz, Schering-Plough Research Institute

10:15 a.m. **Floor Discussion**

214 CC-702

● ▲ Recent Developments for Nonpharmaceutical Clinical Trials—Invited

WNAR, Biopharmaceutical Section, Biometrics Section

Organizer(s): Ying Lu, University of California, San Francisco

Chair(s): Christine E. McLaren, University of California, Irvine

8:35 a.m. **Multicenter Studies of Diagnostic Imaging—** Constantine Gatsonis, Brown University; ✱Mei Hsiu Chen, Brown University

9:00 a.m. **Study Designs for Biomarker-Based Treatment Selection—**✱Amy Laird, University of Washington; Andrew Zhou, University of Washington

9:50 a.m. Disc: Ying Lu, University of California, San Francisco

10:10 a.m. **Floor Discussion**

215 CC-706

● New Directions in Safety Planning and Analysis for Clinical Development—Invited

Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): Brenda J. Crowe, Eli Lilly and Company

Chair(s): Brenda J. Crowe, Eli Lilly and Company

8:35 a.m. **Regulatory Perspectives on Planning for Pre-Marketing—**✱George Rochester, U.S. Food and Drug Administration

9:00 a.m. **Planning for Meta-Analysis—**✱Jesse A. Berlin, Johnson & Johnson Pharmaceutical R&D, LLC

9:25 a.m. **Safety Analyses: Thoughts on Tackling Multiplicity—**✱Devan V. Mehrotra, Merck Research Laboratories; Joseph Heyse, Merck Research Laboratories

9:50 a.m. **Detecting Safety Signals in Clinical Trials: A Bayesian Perspective—**✱H. Amy Xia, Amgen, Inc.; Haijun Ma, Amgen, Inc.; Bradley P. Carlin, The University of Minnesota

10:15 a.m. **Floor Discussion**

216 CC-113

Nonparametric Classification—Invited

Section on Nonparametric Statistics, IMS, Section on Physical and Engineering Sciences

Organizer(s): Malay Ghosh, University of Florida

Chair(s): Malay Ghosh, University of Florida

8:35 a.m. **Nonparametric Approach to Assessing the Performance of Classifiers—**✱Peter G. Hall, The University of Melbourne

9:00 a.m. **Bayesian Ensemble Modeling for Classification Problems—**✱Robert McCulloch, The University of Chicago

9:25 a.m. **Data Piling Direction in High-Dimension, Low Sample Size Data—**James Marron, The University of North Carolina at Chapel Hill; ✱Jeongyoun Ahn, The University of Georgia

9:50 a.m. **Bayesian Curve Classification Using Wavelets—**✱Bani K. Mallick, Texas A&M University; Xiaohui S. Wang, The University of Texas-Pan American; Shubhankar Ray, Merck Research Laboratories

10:15 a.m. **Floor Discussion**

217 CC-605

● ▲ Accurate Elections: The Role of Statisticians—Invited

Scientific and Public Affairs Advisory Committee, Section on Survey Research Methods, Social Statistics Section, Chance

Organizer(s): David A. Marker, Westat, Inc.

Chair(s): Robert Santos, The Urban Institute

8:35 a.m. **Designing an Audit System To Increase Voter Confidence in Elections—✱**Michael W. Traugott, The University of Michigan

8:55 a.m. **Engaging the Unengaged Voter: Vote Centers and Voter Turnout—**Robert M. Stein, Rice University; ✱Greg Vonnahme, Rice University

9:15 a.m. **Residual Voting: A New Diagnostic—✱**Paul Gronke, Reed College

9:35 a.m. **Measuring Voting System Failures: Survey Evidence of the Frequency of Voting Problems in the 2006 and 2008 U.S. Election—✱**Stephen Ansolabehere, Massachusetts Institute of Technology; Charles H. Stewart, III, Massachusetts Institute of Technology

9:55 a.m. Disc: Arlene S. Ash, Boston University

10:15 a.m. **Floor Discussion**

218 CC-107

● ▲ Statistics-Geography Mashups on the Web—Invited

Section on Statistical Graphics

Organizer(s): Juergen Symanzik, Utah State University

Chair(s): Juergen Symanzik, Utah State University

8:35 a.m. **Geo-Mashups: Using Google Earth for Data Exploration—✱**Jason Dykes, City University London

9:00 a.m. **Web-Based Geovisualization and Geocollaboration—✱**Alan M. MacEachren, The Pennsylvania State University; Anthony Robinson, The Pennsylvania State University; Robert Roth, The Pennsylvania State University; Etien Koua, Disaster Preparedness and Prevention Agency; Eugene J. Lengerich, The Pennsylvania State University

9:25 a.m. **Web Visualization of Climate Observations in a Geographical Context—✱**Robert R. Gillies, Utah State University

9:50 a.m. **Map Design for Diverse Worldwide Users of the Web—✱**Robert M. Edsall, Arizona State University

10:15 a.m. **Floor Discussion**

219 CC-206

● Weak Instrument Robust Tests in GMM and the New Phillips Curve—Invited

JBES-Journal of Business and Economic Statistics

Organizer(s): Arthur Lewbel, Boston College; Serena Ng, Columbia University

Chair(s): Arthur Lewbel, Boston College

8:35 a.m. **Weak Identification: Where Do We Stand? A Case Study of the Phillips Curve—✱**Frank Kleibergen, Brown University; Sophocles Mavroeidis, Brown University

9:10 a.m. Disc: Jean-Marie Dufour, McGill University

9:25 a.m. Disc: Anna Mikusheva, Massachusetts Institute of Technology

9:40 a.m. Disc: Eric Zivot, University of Washington

9:55 a.m. Disc: Jonathan H. Wright, Board of Governors of the Federal Reserve System

10:10 a.m. **Floor Discussion**

Tuesday

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

220 CC-606

● Models for Binomial/Multinomial Overdispersed Data—Topic-Contributed

Biometrics Section

Organizer(s): Nagaraj K. Neerchal, University of Maryland, Baltimore County

Chair(s): Mani Lakshminarayanan, Merck & Co., Inc.

8:35 a.m. **An Improved Method for the Computation of Maximum Likelihood Estimates for Multinomial Overdispersion Models—✱**Jorge G. Morel, Procter & Gamble

8:55 a.m. **A Family of Models for Analyzing Correlated/Clustered Multinomial—✱**Justin T. Newcomer, University of Maryland, Baltimore County

9:15 a.m. **On Goodness-of-Fit Test of an Overdispersion Model—✱**Santosh C. Sutradhar, Pfizer, Inc.; Nagaraj K. Neerchal, University of Maryland, Baltimore County; Jorge G. Morel, Procter & Gamble

9:35 a.m. **Modeling Overdispersion in Multilevels Using Random Effects—✱**Jeffrey R. Wilson, Arizona State University

9:55 a.m. Disc: Nagaraj K. Neerchal, University of Maryland, Baltimore County

10:15 a.m. **Floor Discussion**

221 CC-110

New Developments in Multivariate Time Series Analysis—Topic-Contributed

Business and Economics Statistics Section, IMS

Organizer(s): Marc G. Genton, University of Geneva
Chair(s): Marc G. Genton, University of Geneva

8:35 a.m. **Dynamic Factor Models with Block Structure—✱**Marc Hallin, UniversitÈ Libre de Bruxelles

8:55 a.m. **Semiparametric Nonlinear Vector Autoregressive Time Series Models—✱**Yehua Li, The University of Georgia; Marc G. Genton, University of Geneva

9:15 a.m. **Arc Length Tests for Equality of Autocovariances—✱**Ferebee Tunno, Clemson University

9:35 a.m. **Time Series Analysis for PARMA Sequences of Less Than Full Rank—✱**Harry Hurd, The University of North Carolina at Chapel Hill

9:55 a.m. **Dynamic Correlations and Stochastic Volatility—✱**Denis Pelletier, North Carolina State University; William McCausland, University of Montreal; Shirley Miller, University of Montreal

10:15 a.m. **Floor Discussion**

222 CC-108

● Recent Advances in Monte Carlo Methods—Topic-Contributed

Section on Bayesian Statistical Science, Biopharmaceutical Section, Section on Physical and Engineering Sciences, IMS

Organizer(s): Murali Haran, The Pennsylvania State University
Chair(s): Yves F. Atchade, The University of Michigan

8:35 a.m. **Particle Filters for Large-Scale Dynamic Tomography—✱**Yuguo Chen, University of Illinois at Urbana-Champaign

8:55 a.m. **Experiments with Fully Automating Markov Chain Monte Carlo—✱**Murali Haran, The Pennsylvania State University

9:15 a.m. **Gibbs Sampling for a Bayesian Hierarchical Version of the General Linear Mixed Model—✱**Alicia Johnson, The University of Minnesota; Galin Jones, The University of Minnesota

9:35 a.m. **Markov Chain Monte Carlo: Can We Trust the Third Significant Figure?—✱**Galin Jones, The University of Minnesota; Murali Haran, The Pennsylvania State University; James Flegal, The University of Minnesota

9:55 a.m. **Assessing Convergence and Mixing of Markov Chain via Stratification—✱**Rajib Paul, The Ohio State University; Steven N. MacEachern, The Ohio State University; Mark Berliner, The Ohio State University

10:15 a.m. **Floor Discussion**

223 CC-105

▲ Winners of the 2008 Statistical Computing and Statistical Graphics Student Paper Competition—Topic-Contributed

Section on Statistical Computing, Section on Statistical Graphics

Organizer(s): J. R. Lockwood, RAND Corporation
Chair(s): J. R. Lockwood, RAND Corporation

8:35 a.m. **Use of Sparse Linear Discriminant Analysis in Classification and in Testing Gene Pathways—✱**Michael C. Wu, Harvard University; Lingsong Zhang, Harvard University; Xihong Lin, Harvard University

8:55 a.m. **Multi-Objective Optimal Experimental Designs for Event-Related fMRI Studies—✱**Ming-Hung Kao, The University of Georgia; Abhyuday Mandal, The University of Georgia; Nicole Lazar, The University of Georgia; John Stufken, The University of Georgia

9:15 a.m. **Tableplot: A New Display for Factor Analysis—✱**Ernest Kwan, York University

9:35 a.m. **Sparse Permutation Invariant Covariance Estimation—✱**Adam Rothman, The University of Michigan; Peter Bickel, University of California, Berkeley; Elizaveta Levina, The University of Michigan; Ji Zhu, The University of Michigan

10:15 a.m. **Floor Discussion**

224 CC-710

● ▲ Statistical Consulting in Civil Litigation—Topic-Contributed

Section on Statistical Consulting, Social Statistics Section

Organizer(s): Duane Steffey, Exponent, Inc.

Chair(s): Duane Steffey, Exponent, Inc.

8:35 a.m. **Measures of Discrimination and Protocols for Evidence: The Case of the 'Spare List'—✱**Steven M. Crunk, San Jose State University; William B. Fairley, Analysis & Inference, Inc.

8:55 a.m. **Issues in the Use of Survival Analysis To Estimate Damages in Equal Employment Cases—✱**Qing Pan, The George Washington University; Joseph Gastwirth, The George Washington University

9:15 a.m. **Use of External Data Sources To Demonstrate Control for Potentially Confounding Factors—** Rose M. Ray, Exponent-Failure Analysis Associates; ✱Madhu Iyer, Exponent-Failure Analysis Associates

9:35 a.m. **Statistical Issues in Intellectual Property and False Advertising Litigation—✱**Colleen Kelly, Exponent, Inc.

9:55 a.m. **How Can Statisticians Help Improve the Quality of Construction Defect Litigation?—** ✱Louis A. Cox, Cox Associates

10:15 a.m. **Floor Discussion**

225 CC-603

● Statistical Issues in Biomarker and Imaging Studies—Topic-Contributed

Section on Statistics in Epidemiology, Biopharmaceutical tSection, Biometrics Section

Organizer(s): Estelle Russek-Cohen, U.S. Food and Drug Administration

Chair(s): Lori E. Dodd, National Cancer Institute

8:35 a.m. **Regulatory Issues Related to the Evaluation of Biomarkers in a Clinical Study—** ✱Kyunghee K. Song, U.S. Food and Drug Administration

8:55 a.m. **Capturing Performance of Prognostic Markers: An Overview—✱**Estelle Russek-Cohen, U.S. Food and Drug Administration; Harry F. Bushar, U.S. Food and Drug Administration; Iram Quraishi, U.S. Food and Drug Administration

9:15 a.m. **Diagnostic Assays for Screening or Prognosis with Small Biomarker Panels—✱**Friedemann Krause, Roche Diagnostics GmbH

9:35 a.m. **Existing Problems in Gene Expression Microarray-Based Assays for Clinical Practice—✱**Samir Lababidi, U.S. Food and Drug Administration

9:55 a.m. **Maximum Likelihood Estimators for Fraction of False Negative Lesions when Radiologist Panel Is Non-Unanimous—✱**Arkendra De, U.S. Food and Drug Administration; Gene Pennello, U.S. Food and Drug Administration

10:15 a.m. **Floor Discussion**

226 CC-711

Statistics and Methodological Research in the Medical Expenditure Panel Survey (MEPS)—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): Trena M. Ezzati-Rice, Agency for Healthcare Research and Quality

Chair(s): Steven R. Machlin, Agency for Healthcare Research and Quality

8:35 a.m. **Evaluation of Alternative Prediction Models To Oversample Low-Income Persons in the Medical Expenditure Panel Survey (MEPS)—** ✱Lap-Ming Wun, Agency for Healthcare Research and Quality; Trena M. Ezzati-Rice, Agency for Healthcare Research and Quality

8:55 a.m. **Comparison of Imputation Adjustment Techniques on Variance Estimation in the Medical Expenditure Panel Survey (MEPS)—** Robert M. Baskin, Agency for Healthcare Research and Quality; ✱Marc W. Zodet, Agency for Healthcare Research and Quality; Trena M. Ezzati-Rice, Agency for Healthcare Research and Quality

9:15 a.m. **Event Reporting in the Medical Expenditure Panel Survey (MEPS)—✱**Frederick C. Rohde, Agency for Healthcare Research and Quality

9:35 a.m. **Sample Redesign and Conversion to a Windows-Based Survey Instrument: Impact on Part-Year Estimates from the 2007 Medical Expenditure Panel Survey (MEPS)—** ✱Trena M. Ezzati-Rice, Agency for Healthcare Research and Quality; Frederick C. Rohde, Agency for Healthcare Research and Quality; Steven R. Machlin, Agency for Healthcare Research and Quality

9:55 a.m. **Comparison of Direct, Mixed Model, and Bayesian Metropolitan Statistical Area Estimates for the Insurance Component of the Medical Expenditure Panel Survey—**✱Robert M. Baskin, Agency for Healthcare Research and Quality; John P. Sommers, Agency for Healthcare Research and Quality

10:15 a.m. **Floor Discussion**

Topic-Contributed Panel 8:30 a.m.–10:20 a.m.

227 CC-109

▲ Spanning the Globe: The Introductory Statistics Course as a Gateway to the Rest of the World—Topic-Contributed

Section on Statistical Education

Organizer(s): Robert H. Carver, Stonehill College

Chair(s): Laura Chihara, Carleton College

Panelists: ✱Robert H. Carver, Stonehill College

✱Nilupa S. Gunaratna, International Nutrition Foundation

✱James J. Cochran, Louisiana Tech University

✱Paul J. Fields, Brigham Young University

10:15 a.m. **Floor Discussion**

Contributed Sessions 8:30 a.m.–10:20 a.m.

228 CC-202

Ideas for Improving Statistical Competence of Health Science Professionals and Graduate Students—Contributed

Section on Teaching Statistics in the Health Sciences, WNAR, Section on Statistics in Epidemiology

Chair(s): Lorri Ogden, University of Colorado Denver

8:35 a.m. **Statistical Competence or Statistical Literacy: What Should We Teach Health Professionals?—**✱Janet Tooze, Wake Forest University Health Sciences

8:50 a.m. **The Scientist Game: Power and Subterfuge in the Statistical Design of Studies—**✱Scott S. Emerson, University of Washington

9:05 a.m. **Quantitative Literacy Among Health-Care Professionals—**✱Mary Z. Mays, Arizona State University; Jan Jirsak, University of Arizona

9:20 a.m. **Team-Based Learning in a Graduate Statistical Methods Course for Biomedical Researchers—**✱Jessica M. Ketchum, Virginia Commonwealth University; Al M. Best, Virginia Commonwealth University; Emily H. Sheldon, Virginia Commonwealth University

9:35 a.m. **Teaching Bayesian Statistics in a Health Research Methodology Program—**✱Eleanor M. Pullenayegum, St. Joseph's Healthcare; Lehana Thabane, McMaster University

9:50 a.m. **Using the Motivation of Graduate Students To Write Defensible Theses To Teach Biostatistical Methods—**✱Al M. Best, Virginia Commonwealth University; Jessica M. Ketchum, Virginia Commonwealth University; Emily H. Sheldon, Virginia Commonwealth University

10:05 a.m. **Floor Discussion**

229 CC-709

Bootstrap and BRR Variance Estimation—Contributed

Section on Survey Research Methods, Section on Government Statistics, Section on Statistical Computing, SSC

Chair(s): David Binder, Statistics Canada

8:35 a.m. **Variance Estimation for Statistics Canada's Small Household Surveys in the Context of the Household Survey Strategy—**✱Sebastien Landry, Statistics Canada

8:50 a.m. **Implementing Resampling Methods for Design-Based Variance Estimation in Multilevel Models: Using HLM6 and SAS Together—**✱Fritz Pierre, Statistics Canada; Abdelnasser Saïdi, Statistics Canada

9:05 a.m. **Performance of Bootstrap Variance Estimation for a Dual Frame Household Survey: Evidence from the German Panel Survey—**✱Hans Kiesl, Institute for Employment Research

9:20 a.m. **Bias of BRR Variance Estimation in Surveys Weight Adjusted for Nonresponse—**✱Eric V. Slud, U.S. Census Bureau; Yves Thibaudeau, U.S. Census Bureau

9:35 a.m. **Application of Fay's Method for Variance Estimation in the National Compensation Survey Benefits Products—**✱Jonathan J. Lisic, Bureau of Labor Statistics; Lola Ojo, Bureau of Labor Statistics

9:50 a.m. **Using Post-Stratification To Adjust Horvitz-Thompson Estimation and Balanced Repeated Replication for Nonresponse in Longitudinal Surveys—✱**Yves Thibaudeau, U.S. Census Bureau; Eric V. Slud, U.S. Census Bureau

10:05 a.m. **Bootstrap Variance Estimation for Predicted Individual and Aggregate Risks—✱**Milorad Kovacevic, Statistics Canada; Georgia Roberts, Statistics Canada; Lenka Mach, Statistics Canada

230 CC-104

Rankings, Groupings, and Predictions in Sports—Contributed

Section on Statistics in Sports

Chair(s): Elaine Allen, Babson College

8:35 a.m. **The 'Pablo' Volleyball Ranking System—✱**Paul G. Wenthold, Purdue University

8:50 a.m. **Using Match Statistics To Assist in Grading Tennis Competitions—✱**Neil T. Diamond, Monash University

9:05 a.m. **Statistical Methods for Determining Optimal Rifle Cartridge Dimensions—✱**Steven M. Anderson, Metropolitan State College of Denver; Shahar Boneh, Metropolitan State College of Denver; Nels Grevstad, Metropolitan State College of Denver

9:20 a.m. **Visualizing Managerial Strategies in Baseball—✱**Steve C. Wang, Swarthmore College

9:35 a.m. **Is There Increased Parity in the NFL (Has Paul Tagliabue's Dream Come True)?—✱**Joseph Koopmeiners, University of Washington

9:50 a.m. **Assessing the Accuracy of Sports Predictions—✱**Paul Stephenson, Grand Valley State University; John Gabrosek, Grand Valley State University; Dan Frobish, Grand Valley State University

10:05 a.m. **Floor Discussion**

231 CC-602

● Modeling Mortality—Contributed

Section on Statistics in Epidemiology, Section on Government Statistics, Social Statistics Section, Biometrics Section

Chair(s): David Kane, Harvard University

8:35 a.m. **Reclassification of Socioeconomic Classes for Modeling Mortality from Leading Causes—✱**Jay H. Kim, National Center for Health Statistics; Rong Wei, National Center for Health Statistics

8:50 a.m. **Mapping Empirical Bayes Estimates of Cancer Mortality Rates Adjusted for Smoking—✱**Huilin Li, National Cancer Institute; Barry I. Graubard, National Cancer Institute; Mitchell H. Gail, National Cancer Institute

9:05 a.m. **Identifiability of Bivariate Mixtures: An Application to Infant Mortality Models—✱**Eric Y. Frimpong, University at Albany; Timothy B. Gage, University at Albany; Howard Stratton, University at Albany

9:20 a.m. **Statistical Methods in Estimating Mortalities for Ages with Zero Observed Deaths—✱**Rong Wei, National Center for Health Statistics

9:35 a.m. **Comparing Methods Decomposing Disparity in Life Expectancy by Disease—✱**Charles Lin, U.S. Census Bureau; Norman Johnson, U.S. Census Bureau

9:50 a.m. **An Approach To Handle the Problem of Zeros Deaths in Estimating Mortality Rates—✱**Anastasia Voulgaraki, National Center for Health Statistics; Rong Wei, National Center for Health Statistics

10:05 a.m. **On the Confidence Intervals of the Attributable Risk Under Cross-Sectional Sampling with Confounders—✱**Md. Khairul Islam, Wayne State University

232 CC-707

Biomarkers, Sampling, and Measurement Issues—Contributed

Section on Statistics and the Environment, Section on Statistics in Epidemiology

Chair(s): Sandrah P. Eckel, Johns Hopkins Bloomberg School of Public Health

8:35 a.m. **Reconstruction of General Population Exposure to Perchloroethylene with Sparse Biomonitoring Data—✱**Junshan Qiu, The University of Georgia

8:50 a.m. **Some Challenges Encountered in the Analysis of Biomarker Data—✱**Stephen W. Looney, Medical College of Georgia; Joseph L. Hagan, LSU Health Sciences Center

9:05 a.m. **Approximate Inferential Procedures Based on Samples with Nondetects—✱**Avishek Mallick, University of Louisiana at Lafayette; K. Krishnamoorthy, University of Louisiana at Lafayette; Thomas Mathew, University of Maryland, Baltimore County

9:20 a.m. **A Risk-Based Approach to Setting Environmental Limits on Turbidity During Large-Scale Dredging Operations—✱**David R. Fox, University of Melbourne

9:35 a.m. **Using a Bayesian Hierarchical Measurement Error Model To Estimate Individual Observer Detection Rates in Aerial Transect Surveys—✱**Mark C. Otto, U.S. Fish and Wildlife Service

9:50 a.m. **A Series of Experiments About Wireless Sensor Networks—✱**Kristian Lum, Duke University

10:05 a.m. **Floor Discussion**

233 CC-705

Issues in Substance Abuse and Mental Health Research—Contributed

Section on Health Policy Statistics

Chair(s): Eloise Kaizar, The Ohio State University

8:35 a.m. **Using a Yardstick Approach To Enrich Understanding of Treatment Effect on Urge To Smoke: An Application to a Smoking Cessation Trial—✱**Joseph C. Cappelleri, Pfizer, Inc.; Andrew G. Bushmakin, Pfizer, Inc.; Riad Dirani, Johnson & Johnson Pharmaceutical R&D, LLC

8:50 a.m. **Alcohol Outlet Density and Alcohol Consumption in Los Angeles County and Southern Louisiana—✱**Matthias Schonlau, RAND Corporation; Deborah Cohen, RAND Corporation; Richard Scribner, Louisiana State University Health Sciences Center; Thomas A. Farley, Tulane University School of Public Health and Tropical Medicine; Katherine Theall, Louisiana State University Health Sciences Center; Ricky N. Bluthenthal, California State University; Molly Scott, RAND Corporation

9:05 a.m. **Health Consequences of Alcohol Abuse: An Ecological Model—✱**Yasmin H. Said, George Mason University

9:20 a.m. **An EM Algorithm for Zero-Inflated Negative Binomial Regression Based on a Poisson Mixture Representation—✱**Chih-Nan Chen, Cambridge Health Alliance; Xiao-Li Meng, Harvard University

9:35 a.m. **Utilizing Stakeholders To Inform Mental Health Treatment Practices—✱**Christopher J. McKinney, Mental Health Center of Denver; Kathryn DeRoche, Mental Health Center of Denver; Antonio Olmos, Mental Health Center of Denver; Mike Hester, Mental Health Center of Denver; Donald Sammons, Mental Health Center of Denver

9:50 a.m. **Risk Factors Associated with Injection Initiation Among Drug Users: Comparing Hierarchical Modeling with Traditional Logistic Regression—✱**Shahid Kamal, University of the Punjab; Muhammad A. Raza, GC University; Rehan A. Khan, PU

10:05 a.m. **Floor Discussion**

234 CC-703

The Decennial Census: Past and Future—Contributed

Section on Government Statistics, Social Statistics Section

Chair(s): Michael Davern, The University of Minnesota/SHADAC

8:35 a.m. **An Overview of the 2010 Census Design—✱**Frank Vitrano, U.S. Census Bureau

8:50 a.m. **Reducing Risks in the 2010 Census—✱**Sally Obenski, U.S. Census Bureau; James Treat, U.S. Census Bureau; Dan Weinberg, U.S. Census Bureau

9:05 a.m. **Ensuring That Processes and Information Inputs and Outputs Are Accurate: Operational Integration—✱**James Treat, U.S. Census Bureau; Frank Vitrano, U.S. Census Bureau

9:20 a.m. **Effectively Communicating a Complex Program—✱**James Dinwiddie, U.S. Census Bureau; Frank Vitrano, U.S. Census Bureau

9:35 a.m. **Estimating the Average Number of Persons Per Household: A Regression Approach—✱**Kirsten K. West, U.S. Census Bureau; Antonio Bruce, U.S. Census Bureau

9:50 a.m. **Convergent Multivariate Graphics for Capturing the Naming Patterns in U.S. Census Data Over Two Centuries—✱**Whitney Erickson, Brigham Young University; Angel Venegas, Brigham Young University; Alexandra Brattos, Brigham Young University; Malvina Salash, Brigham Young University; Donald Walker, Brigham Young University; Jessica H. Scott, Brigham Young University; Bruce L. Brown, Brigham Young University

10:05 a.m. **Floor Discussion**

235 CC-106

● ▲ Bayesian Applications and Methods in Biology—Contributed

Section on Bayesian Statistical Science

Chair(s): Matthew Heaton, Duke University

8:35 a.m. **Long-Term HIV Dynamic Models Incorporating Drug Adherence and Resistance for Prediction of Virologic Responses—✱**Yangxin Huang, University of South Florida

8:50 a.m. **Bayesian Mixture Modeling for Interval-Censored Age Onset of Puberty—**Bin Huang, Cincinnati Children's Hospital Medical Center; ✱Lili Ding, Cincinnati Children's Hospital Medical Center; Siva Sivaganisan, University Cincinnati

9:05 a.m. **Bayesian Methods for Models of Virus Production by Infected Cells—✱**Cavan Reilly, Universty of Minnesota

9:20 a.m. **Detection of Task-Related Activation in fMRI Data with Segmentation Information from Structural MRI—✱**Namhee Kim, The Ohio State University; Prem K. Goel, The Ohio State University; David Q. Beversdorf, University of Missouri-Columbia

9:35 a.m. **Network-Based Auto-Probit Modeling for Protein Function Prediction—✱**Xiaoyu Jiang, Boston University; Eric Kolaczyk, Boston University; David Gold, Boston University

9:50 a.m. **A Spike and Slab Centering Distribution in Dirichlet Process Mixture Models for Gene Expression—✱**Sinae Kim, The University of Michigan; David B. Dahl, Texas A&M University; Marina Vannucci, Rice University

10:05 a.m. **Floor Discussion**

236 CC-701

● Applications of Survival Analysis—Contributed

ENAR, WNAR, Section on Statistics in Epidemiology, Biometrics Section

Chair(s): LeAnna G. Stork, Monsanto Company

8:35 a.m. **Gray's Time-Varying Coefficient Model with Censored Covariates—✱**Gina D'Angelo, Washington University School of Medicine; Lisa Weissfeld, University of Pittsburgh; Chung-Chou Chang, University of Pittsburgh

8:50 a.m. **Sensitivity Analysis To Investigate the Impact of a Missing Covariate on Survival Analyses Using Cancer Registry Data—✱**Brian L. Egleston, Fox Chase Cancer Center; Yu-Ning Wong, Fox Chase Cancer Center

9:05 a.m. **Estimating Predictive Error for Left- and Right-Censored Survival Data with Time-Varying Covariates—✱**William R. Prucka, The University of Alabama at Birmingham; Christopher S. Coffey, The University of Alabama at Birmingham

9:20 a.m. **Using a Point System Table To Improve the Communication of Statistical Estimates of Risk to Clinicians and Patients—✱**Darcy Hille, Merck & Co., Inc.

9:35 a.m. **A Comparison Between Rank Regression and Maximum Likelihood Methods of Estimation for Weibull Regression—✱**Laura J. Freeman, Virginia Polytechnic Institute and State University; Denisa A. Olteanu, Virginia Polytechnic Institute and State University; Geoffrey Vining, Virginia Polytechnic Institute and State University

9:50 a.m. **Mixture Hazard and Change-Point Models in Survival Analysis: An Application to Predicting Suicide Attempts—✱**Hanga Galfalvy, Columbia University; Maria A. Oquendo, Columbia University; John J. Mann, Columbia University

10:05 a.m. **Strong Consistency of the Intercept Estimator in the Semiparametric Accelerated Failure Time Model—✱**Ying Ding, The University of Michigan; Bin Nan, The University of Michigan

237 CC-608

Stochastic Modeling of Biological Data—Contributed

Biometrics Section

Chair(s): Yuexiao Dong, The Pennsylvania State University

8:35 a.m. **Branching Process Models of the Cell Cycle—✱**Peter Olofsson, Trinity University

8:50 a.m. **Matching Errors in Closed-Population Capture-Recapture Experiments Based on DNA Sampling—✱**Ross M. Gosky, Appalachian State University; Leonard Stefanski, North Carolina State University

9:05 a.m. **Modeling Risk Factors for Alzheimer's Disease Progression Using a Nonhomogeneous Markov Process—✱**Rebecca A. Hubbard, University of Washington; Andrew Zhou, University of Washington

9:20 a.m. **Estimating the Number of Species with Quadrats Sampled Without Replacement—**✱Tsung-Jen Shen, National Chung Hsing University; Fangliang He, University of Alberta

9:35 a.m. **A Time-Dependent Poisson Random Field Model for Polymorphism Within and Between Two Related Biological Species—**✱Amei Amei, University of Nevada Las Vegas; Stanley Sawyer, Washington University in St.Louis

9:50 a.m. **Stochastic Modeling for Blood Glucose and Insulin Dose in a Simulation Study of Glucose Control Strategies in the Adult ICU—**✱Hui Zheng, Harvard Medical School; David Schoenfeld, Massachusetts General Hospital; Taylor Thompson, Massachusetts General Hospital

10:05 a.m. **Modeling of PSA Dynamics of Prostate Cancer Patients Receiving Neoadjuvant Hormone Therapy Prior to Radiation Therapy—**✱Mariel S. Lavieri, The University of British Columbia; Martin L. Puterman, Sauder School of Business; Scott Tyldesley, British Columbia Cancer Agency; Steven Shechter, The University of British Columbia; Tom Pickles, British Columbia Cancer Agency

238 CC-112
Risk Analysis—Contributed

Business and Economics Statistics Section, Section on Risk Analysis

Chair(s): Mihaela Krasteva, Stern School of Business/New York University

8:35 a.m. **Empirical Relationships Among Various Statistics Measuring Discriminatory Power—**✱John Zuo, Wachovia Bank

8:50 a.m. **Anticipating Extreme Changes in the Performance of Long Repayment Term Consumer Loan Portfolios Through Eigenvector Analysis of Markov Chain Matrices—**✱Alex Strounine, Strounine Thompson Technology Group

9:05 a.m. **Ruin Probabilities in Risk Model with the General Mixture Distribution—**✱Min Deng, Maryville University of St. Louis

9:20 a.m. **Management of Business Processes in Uncertain Conditions—**✱Maxim B. Khayrullin, Novosibirsk State Technical University; Anatoly A. Naumov, Novosibirsk State Technical University

9:35 a.m. **Modeling Dependence in the Design of Crop Insurance Contract: A Semiparametric Copula Model Approach—**✱Ying Zhu, North Carolina State University; Sujit Ghosh, North Carolina State University; Barry Goodwin, North Carolina State University

9:50 a.m. **Using Time-Varying GEVs To Model Extreme Financial Returns—**✱Mark L. Labovitz, University of Colorado, Denver/Lipper, A Reuters Company

10:05 a.m. **Improved Statistical Emphasis on Hedge Fund Trading Strategy and Risk Management—**✱Bogong T. Li, Bank of America, N.A.

239 CC-604
▲ Survival Analysis: New Theoretical Developments—Contributed

Biometrics Section, IMS

Chair(s): Yichuan Zhao, Georgia State University

8:35 a.m. **An Accelerated Failure Time Cure Model for Time-to-Event Data with Masked Cause of Failure—**✱Jing J. Zhang, Harvard University; Molin Wang, Dana Farber Cancer Institute and Harvard University

8:50 a.m. **Adjust the Estimates of Hazard Ratios for Group Sequential Trials Using the Bayesian Dynamic Survival Model Combined with Computation Techniques—**✱Jianghua He, University of Kansas Medical Center; Matthew Mayo, The University of Kansas Medical Center

9:05 a.m. **Estimating Cumulative Treatment Effects in the Presence of Nonproportional Hazards and Dependent Censoring—**✱Guanghui Wei, The University of Michigan; Douglas E. Schaubel, The University of Michigan

9:20 a.m. **Optimal Inferences for Proportional Hazards Model with Parametric Covariate Transformations—**✱Chunpeng Fan, sanofi-aventis; Jason P. Fine, University of Wisconsin-Madison; Jong-Hyeon Jeong, University of Pittsburgh

9:35 a.m. **Discriminating Weibull and Log-Normal Under Type-II Censored Data—**✱Arabin K. Dey, IIT Kanpur; Debasis Kundu, IIT Kanpur

9:50 a.m. **Backward Estimation of Medical Cost in the Presence of a Failure Event—**✱Kwun Chuen (Gary) Chan, Johns Hopkins University; Wang Mei-Cheng, Johns Hopkins University

10:05 a.m. **A New Partial Likelihood for the Cox Proportional Hazards Model—✱**Liyuan (Larry) Ma, Merck & Co., Inc.; Devan V. Mehrotra, Merck Research Laboratories; Woollcott Smith, Temple University

240 CC-601

● ▲ Statistical Issues in Oncology Trials—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Yonggang Zhao, Wyeth Research

8:35 a.m. **Family of Optimum M-Stage Designs for Single Arm Phase II Oncology Clinical Trials—✱**Muhammad Jalaluddin, Novartis Pharmaceuticals

8:50 a.m. **Relationship Between Type I Error and Frequency of Progression Assessment—✱**Xiaoping Jiang, U.S. Food and Drug Administration; Kun He, U.S. Food and Drug Administration; Rajeshwari Sridhara, U.S. Food and Drug Administration

9:05 a.m. **Consequences of Asymmetry in Progression Assessments—✱**Shenghui Tang, U.S. Food and Drug Administration; Chris Holland, U.S. Food and Drug Administration; Rajeshwari Sridhara, U.S. Food and Drug Administration

9:20 a.m. **Evaluation of Time-to-Progression: Where Your Censor Matters?—**Chia-wen Ko, U.S. Food and Drug Administration; ✱Somesh Chattopadhyay, U.S. Food and Drug Administration; Rajeshwari Sridhara, U.S. Food and Drug Administration

9:35 a.m. **Planning for Phase III Oncology Trials Without Adequate Data from Phase II Trials—✱**Pralay Mukhopadhyay, Bristol-Myers Squibb Company; Thomas Kelleher, Bristol-Myers Squibb Company

9:50 a.m. **Dose Reduction Profiles for Combination Drug Studies—✱**John J. Peterson, GlaxoSmithKline Pharmaceuticals

10:05 a.m. **Sensitivity Analysis for Treatment Drop-In in Oncology Clinical Trials—✱**Cheng A. Rong, Amgen, Inc.; Michael Wolf, Amgen, Inc.; Zhiying J. Pan, Amgen, Inc.; Xiang C. Zhang, Amgen, Inc.

241 CC-101

Mining Complex and High-Dimensional Data—Contributed

Section on Statistical Computing, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Statisticians in Defense and National Security, IMS

Chair(s): Robert Lew, VA Boston Healthcare System

8:35 a.m. **A Comparison of Several Measures of the Center of a Functional Data Set—✱**David B. Hitchcock, University of South Carolina

8:50 a.m. **Statistical Inference with High-Dimensional Data—✱**Min Hee Kim, The Pennsylvania State University; Michael G. Akritas, The Pennsylvania State University

9:05 a.m. **Tracking the Best Predictor with a Detection-Based Algorithm—✱**Yannig Goude, EDF R&D

9:20 a.m. **Classification of Alzheimer's and Normal fMRI Scans Using Temporal Network Distance Matrices—✱**Ariana Anderson, University of California, Los Angeles; Ivo D. Dinov, University of California, Los Angeles

9:35 a.m. **Linear Dimension Reduction for Multiple Multivariate Skew-Normal Densities—✱**Philip D. Young, Baylor University; Jack Tubbs, Baylor University; Dean Young, Baylor University

9:50 a.m. **Principal Component Rotation in High Dimensions—✱**Trevor Park, University of Florida

10:05 a.m. **Small Sample Inference for Generalization Error in Classification—✱**Eric B. Laber, The University of Michigan; Susan A. Murphy, The University of Michigan

Contributed Poster Presentations 8:30 a.m.–10:20 a.m.

242 CC-F Lobby

Contributed Poster Presentations—Contributed

Biometrics Section, Biopharmaceutical Section, ENAR, Section on Health Policy Statistics, Section on Statistical Computing, Section on Statistics in Epidemiology, WNAR

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Biometrics, bioinformatics, computational biology

01 **Bayesian Array Analysis To Assess the Effects of Nutrient Deficiencies in White Lupin**—✱Robert Norton, California State University, East Bay; Mousumi Rath, California State University, East Bay; Bandita Parhy, California State University, East Bay; Claudia Stone, California State University, East Bay

02 **Spatial Event Cluster Detection Using a Normal Approximation**—✱Rhonda Rosychuk, University of Alberta; Mahmoud Torabi, University of Alberta

03 **Statistical Methods for Automated Drug Susceptibility Testing: Minimum Inhibitory Concentration Prediction from Growth Curves**—✱Xi (Kathy) Zhou, Cornell University; Merlise Clyde, Duke University; James Garrett, Becton Dickinson Diagnostic Systems; Viridiana Lourdes, Morgan Stanley; Michael O'Connell, Insightful Corporation; Giovanni Parmigiani, Johns Hopkins University; David J. Turner, Becton Dickinson Diagnostic Systems; Timothy M. Wiles, Becton Dickinson Diagnostic Systems

04 **Comparisons of Titer Estimation Methods for Multiplexed Pneumococcal Opsonophagocytic Killing Assay**—✱Deli Wang, The University of Alabama at Birmingham

05 **New Bimodel Classifier for Predicting Outcomes of Prostate Cancer Patients**—✱Zhenyu Jia, University of California, Irvine; Yipeng Wang, The Sidney Kimmel Cancer Center; James Koziol, The Scripps Research Institute; Michael McClelland, The Sidney Kimmel Cancer Center; Dan Mercola, University of California, Irvine

06 **Locating DNA Copy Number Changes by Using a Statistical Change Point Model**—✱Paul Plummer, University of Missouri-Kansas City

07 **Estimating the Proportion of Differentially Expressed Genes in Comparative DNA Microarray Experiments**—✱Ching-Ray Yu, Pfizer, Inc.

08 **Discovery of Novel Protein Domains: The Parasitic Connection**—✱Ian Lee, National University Hospital

09 **Identifying Allele-Specific Gene Expression in Human Brains Using the Illumina Sentrix Array Matrix and the Goldengate Assay**—✱Xin V. Wang, University of California, Berkeley; Terence P. Speed, University of California, Berkeley; Charles E. Glatt, Cornell Medical School

10 **A Genetical Genomics Approach to Genome Scans for Complex Traits**—✱Guoying Sun, The University of Georgia; Paul Schliekelman, The University of Georgia

11 **Rediscovering the Power of Well-Planned Contrasts: Normalization and Analysis of cDNA Microarray Using Linear Contrasts**—✱Liping Huang, University of Kentucky; Naoki Miura, University of Kentucky; Michael Mienaltowski, University of Kentucky; James MacLeod, University of Kentucky; Arnold Stromberg, University of Kentucky; Arne Bathke, University of Kentucky; Constance Wood, University of Kentucky

12 **Large-Scale Comparison of Methods for Analysis of Microarrays: Ranked List Accuracy and Sample Size**—Robert H. Podolsky, Medical College of Georgia; ✱Nikhil Garge, Medical College of Georgia

13 **A Method for Learning Gene Association Networks from High-Dimensional Data**—Jie Cheng, GlaxoSmithKline; Xiwu Lin, GlaxoSmithKline R&D; ✱Kwan Lee, GlaxoSmithKline

14 **Mining Illumina Chip Time Course Microarray Data: Assessment of Normalization Methods and Pattern-Based Clustering of Genes Using Contrast Analysis**—✱Suman Duvvuru, The University of Tennessee, Knoxville

15 **Modified Linear Discriminant Analysis Approaches for Classification of High-Dimensional Microarray Data**—✱Ping Xu, University of Louisville; Guy Brock, University of Louisville; Rudolph Parrish, University of Louisville

Health policy, epidemiology, public health

16 **Repeated Measured Methodology for Spatial Cluster Detection While Accounting for Moving Locations**—✱Andrea J. Cook, Group Health Center for Health Studies; Yi Li, Harvard University/Dana Farber Cancer Institute

17 **Statistics in Evaluating Trauma Center (TC) Performance**—✱Wei Xiong, University of Toronto; Khumar Huseynova, University of Toronto; Sandra Goble, NTDB, American College of Surgeons; Avery Nathens, University of Toronto

18 **Evaluating the Hawaii Demonstration To Maintain Independence and Employment**—✱Tammy Tom, University of Hawaii

19 **An Investigation of the Relationships Between Intervention Bills and Child Obesity Rate**—✱Melanie Logue, The University of Arizona; Margaret G. Ericksen, Arizona State University; Chong Ho Yu, Arizona State University

20 **Fitting a Semi-Markov Process Model to Data on Transitions Between Health States in the Presence of Left Censoring—✱**Nathaniel Schenker, National Center for Health Statistics; Liming Cai, National Center for Health Statistics; James Lubitz, National Center for Health Statistics (retired)

21 **Individualized Absolute Risks from Epidemiologic Data—✱**Anne S. Reiner, Memorial Sloan-Kettering Cancer Center; Colin B. Begg, Memorial Sloan-Kettering Cancer Center; Elyn Riedel, Memorial Sloan-Kettering Cancer Center; Marinela Capanu, Memorial Sloan-Kettering Cancer Center; Jonine Bernstein, Memorial Sloan-Kettering Cancer Center

22 **A Statistical Model for Real-Time Estimation of the Cumulative Confirmed Dengue—✱**Pei-Hung Chuang, National Yang-Ming University; I-Feng Lin, National Yang-Ming University; Jen-Hsiang Chuang, Centers for Disease Control and Prevention, Taiwan

23 **Lots of Data, Not Very Many People: Analysis of Multidimensional Profiles with Small Sample Sizes—✱**Leann Myers, Tulane University; Margo A. Sidell, Tulane University; Michael J. Ferris, The Research Institute for Children

24 **A Statistical Analysis of Historical Pandemic Influenza Data—✱**Emily J. Powell, University of California, Santa Cruz

25 **Syndromic Surveillance Monitoring of Influenza Activity in Los Angeles County—✱**Emily Kajita, Los Angeles County Department of Public Health; Akbar Sharip, Los Angeles County Department of Public Health; Patricia Araki, Los Angeles County Department of Public Health; Long Tai, Los Angeles County Department of Public Health; Bessie Hwang, Los Angeles County Department of Public Health

26 **Estimating Risk for Transmission of Expanded Repeats Among Male Carriers of Intermediate Huntington Gene Alleles—✱**Audrey E. Hendricks, Boston University School of Public Health; Jeanne Latourelle, Boston University School of Medicine; Kathryn Lunetta, Boston University School of Public Health; Marcy MacDonald, Harvard Medical School; Adrienne Cupples, Boston University School of Public Health; James Gusella, Harvard Medical School; Richard Myers, Boston University School of Medicine

27 **Risk Factors Associated with Young Adults Nonmedical Prescription Drug Use (NMPDU) Using a National Sample: A Comparison of Recursive Partitioning Trees and Logistic Regressions—✱**Lirong Zhao, University of Maryland School of Pharmacy; Linda Simoni-Wastila, University of Maryland School of Pharmacy; Zhenqiu Liu, University of Maryland School of Medicine; Ming T. Tan, University of Maryland Greenebaum Cancer Center

28 **Methods To Model the Impact of Respiratory Viruses on Asthma Risk—✱**Pingsheng Wu, Vanderbilt Univrsity Medical Center; Tebeb Gebretsadik, Vanderbilt University Medical Center; William Dupont, Vanderbilt University Medical Center; Kecia Carroll, Vanderbilt University Medical Center; Marie Griffin, Vanderbilt University Medical Center; Tina Hartert, Vanderbilt University Medical Center

29 **Comparative Simulation Analysis of Modeling Heterogeneity in Closed Population Capture-Recapture Studies—✱**Rob C. Wild, University of Oklahoma Health Sciences Center

30 **Oklahoma Tobacco Helpline: A Comparison of Sampling and Weighting Methods for Follow-Up Evaluation—✱**Emily Leary, University of Oklahoma Health Sciences Center; Bernardo Andrade, University of Oklahoma Health Sciences Center; Barbara Neas, University of Oklahoma Health Sciences Center; Laura Beebe, University of Oklahoma Health Sciences Center

31 **Geotemporal Spread of Influenza A in Canada and United States—✱**Dena L. Schanzer, Public Health Agency of Canada; Trevor Dummer, Dalhousie University; Joanne Langley, Dalhousie University; Samina Aziz, Public Health Agency of Canada; Brian Winchester, Public Health Agency of Canada; Theresa Tam, Public Health Agency of Canada

Special Presentation
10:30 a.m.–12:20 p.m.

243 **CC-111**

ASA College Stat Bowl II—Other

ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Stephanie Cano, The University of Texas at San Antonio

Chair(s): Stephanie Cano, The University of Texas at San Antonio

Round 2—✱Winners from Session 1, Six players will advance from Round 1 to Round 2

Invited Sessions 10:30 a.m.–12:20 p.m.

244 CC-708

Developments in Spatial/Environmental Health Modeling—Invited

Section on Statistics and the Environment, Section on Statistics in Epidemiology, WNAR

Organizer(s): Ying C. MacNab, The University of British Columbia

Chair(s): Ying C. MacNab, The University of British Columbia

10:35 a.m. **Estimating a Pollutant's Policy-Related Background Level with Deterministic and Statistical Models—✱**James V. Zidek, The University of British Columbia; Zhong Liu, The University of British Columbia; Nhu Le, BC Cancer Research Center

11:05 a.m. **Evaluating the Performance of Spatio-Temporal Bayesian Models in Disease Mapping—✱**Maria Dolores Ugarte, Public University of Navarra; Tomas Goicoa, Public University of Navarra; Berta Ibañez, Fundación Vasca de Innovación e Investigación Sanitarias; Ana F. Militino, Public University of Navarra

11:35 a.m. **Space-Time Environmental Interaction Modeling for Small-Area Health Outcomes—✱**Andrew B. Lawson, University of South Carolina; Ahmed Al Hadrani, University of South Carolina

12:05 p.m. **Floor Discussion**

245 CC-603

▲ New Statistical and Computational Methods for Analysis of Genomic Data with a Graphical Structure—Invited

Biometrics Section, Biopharmaceutical Section, WNAR

Organizer(s): Hongzhe Li, University of Pennsylvania

Chair(s): Hongzhe Li, University of Pennsylvania

10:35 a.m. **Statistical Inference of Network Structure—✱**Wing H. Wong, Stanford University

11:00 a.m. **Pathways, Priors, Predictions: Network Inference in Cancer Systems Biology—✱**Sachi N. Mukherjee, University of Warwick

11:25 a.m. **Use of the Graph Laplacian To Analyze Network Data—✱**Elizabeth Purdom, University of California, Berkeley

11:50 a.m. **Bayesian Variable Selection in Structured High-Dimensional Covariate Spaces, with Applications in Genomics—✱**Nancy R. Zhang, Stanford University; Fan Li, Harvard Medical School

12:15 p.m. **Floor Discussion**

246 CC-707

▲ Confidentiality Training: What Does It Mean, and How Is It Practiced?—Invited

Committee on Privacy and Confidentiality, Section on Statistics in Epidemiology, Social Statistics Section

Organizer(s): J. Neil Russell, National Center for Education Statistics

Chair(s): J. Neil Russell, National Center for Education Statistics

10:35 a.m. **Required Confidentiality Training: What Does It Mean and How Is It Practiced? An Overview of Concepts, Practices, and Key Considerations—✱**Alvan O. Zarate, National Center for Health Statistics

10:55 a.m. **Confidentiality Training in a Federal Statistical Agency—✱**Christa D. Jones, U.S. Census Bureau

11:15 a.m. **Implementing CIPSEA in a Brand New Statistical Unit: Implications for Staff, Contractor, and Agent Training—✱**Jonaki Bose, Substance Abuse and Mental Health Services Administration

11:35 a.m. **Confidentiality Training for the National Opinion Research Center's Data Enclave—✱**Julia Lane, National Science Foundation; Timothy M. Mulcahy, National Opinion Research Center; Pascal Heus, Open Data Foundation

11:55 a.m. Disc: Alan Zaslavsky, Harvard University Medical School

12:15 p.m. **Floor Discussion**

247 CC-110

● Nonparametric Bayesian Data Analysis—Invited

Council of Chapters, Section on Bayesian Statistical Science, Section on Nonparametric Statistics

Organizer(s): Yisheng Li, The University of Texas M.D. Anderson Cancer Center

Chair(s): Xihong Lin, Harvard University

10:35 a.m. **Center-Adjusted Inference for a Nonparametric Bayesian Random Effect Distribution—✱**Yisheng Li, The University of Texas M.D. Anderson Cancer Center; Peter Mueller, The University of Texas M.D. Anderson Cancer Center; Xihong Lin, Harvard University

11:05 a.m. **Sparse Modeling of Conditional Response Distributions with Many Predictors—✱**David Dunson, National Institute of Environmental Health Science

11:35 a.m. **Bayesian Semiparametric Modeling and Inference for Longitudinal Diagnostic Testing Data—✱**Wesley O. Johnson, University of California, Irvine; Michelle Norris, University of California, Davis

12:05 p.m. **Floor Discussion**

248 CC-702

● ▲ Controversy and Convergence on Modeling Synergism in Drug Combination Studies—Invited

ENAR, Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): J. Jack Lee, The University of Texas M.D. Anderson Cancer Center

Chair(s): J. Jack Lee, The University of Texas M.D. Anderson Cancer Center

10:35 a.m. **Trial by Fire: Comparison of Statistical Models for Studying Drug Combinations—✱**William R. Greco, University at Buffalo, SUNY

11:05 a.m. **Application of Mixed Models in Drug Combinations—✱**Maiying Kong, University of Louisville; J. Jack Lee, The University of Texas M.D. Anderson Cancer Center

11:35 a.m. **Controversy and Convergence on Modeling Synergism in Drug Combination Studies—✱**Ming T. Tan, University of Maryland Greenebaum Cancer Center; Hong-Bin Fang, University of Maryland Greenebaum Cancer Center

12:05 p.m. **Floor Discussion**

249 CC-709

● ▲ Would the Real Data Please Stand Up? Data Comparisons for Policy Analysis—Invited

Section on Government Statistics, Section on Survey Research Methods, Social Statistics Section, Scientific and Public Affairs Advisory Committee

Organizer(s): Joan L. Turek, U.S. Department of Health and Human Services

Chair(s): Daniel Kasprzyk, Mathematica Policy Research, Inc.

10:35 a.m. **Measuring Income and Poverty in Four Surveys: An Overview—✱**Connie Citro, Committee on National Statistics; Joan L. Turek, U.S. Department of Health and Human Services; Gabrielle Denmead, Denmead Services and Consulting; Sameer Desale, Synectics for Management Decisions Inc.; Brian James, U.S. Department of Health and Human Services

11:00 a.m. **How Much Is It Worth: Comparing the Policy-Analytic Value of Wealth Data from Four Surveys—✱**John L. Czajka, Mathematica Policy Research, Inc.

11:25 a.m. **Misreporting of SSI and Social Security Benefits: Evidence from Comparisons of Survey and Administrative Data—**Paul Davies, Social Security Administration; ✱Lynn Fisher, Social Security Adminsitration

11:50 a.m. **A Comparison of the Health Insurance Coverage Estimates from Four National Surveys and Six State Surveys—✱**Michael Davern, The University of Minnesota/ SHADAC

12:15 p.m. **Floor Discussion**

250 CC-105

● ▲ Statistical Challenges in Online Advertising and Search—Invited

Section on Statistical Computing

Organizer(s): Deepak Agarwal, Yahoo! Research

Chair(s): Deepak Agarwal, Yahoo! Research

10:35 a.m. **Understanding Online Advertisers—✱**Daryl Pregibon, Google, Inc.; Diane Lambert, Google, Inc.

11:00 a.m. **Placing Online Advertisements Based on Context—✱**Kishore A. Papineni, Yahoo! Research

11:25 a.m. **Social and Semantic Structures in Web Search—✱**Andrew Tomkins, Yahoo! Inc.

11:50 a.m. Disc: Ravi Kumar, Yahoo! Research

12:10 p.m. **Floor Discussion**

251 CC-206

● Signal Classification and Pattern Discovery—Invited

ASA Interest Group on Statistical Learning and Data Mining, Section on Nonparametric Statistics, Section on Statisticians in Defense and National Security

Organizer(s): Hernando Ombao, Brown University

Chair(s): Hernando Ombao, Brown University

10:35 a.m. **A VAR Model for Effective Connectivity in Slow Event-Related fMRI Designs—✱**Wesley Thompson, University of Pittsburgh

11:05 a.m. **Detection of Cognitive Fatigue from EEG Signals—✱**Raquel Prado, University of California, Santa Cruz

11:35 a.m. **Discovering Patterns of Connectivity Within the Human Brain—✱**F. DuBois Bowman, Emory University

12:05 p.m. **Floor Discussion**

252 CC-705

● ▲ Consulting Service Models for Academic Medical Centers: What Works, What Doesn't Work, Reaching Out, and Filling the Growing Need—Invited

Section on Statistical Consulting, WNAR, Section on Statistics in Epidemiology

Organizer(s): Shelley Hurwitz, Brigham & Women's Hospital

Chair(s): Katherine Monti, Rho, Inc.

10:35 a.m. **The Staff Model, the Independent Contractor Model, and Marketing the Consulting Service in a Teaching and Research Hospital—✱**Shelley Hurwitz, Brigham & Women's Hospital

10:55 a.m. **Statistical Consulting for a Newly Formed Department of Biostatistics in a Highly Collaborative Environment at the University of Kansas Medical Center—✱**Jonathan Mahnken, The University of Kansas Medical Center

11:15 a.m. **Consulting and Collaboration Model for a Health Sciences Center—✱**Guy Brock, University of Louisville; Rudolph Parrish, University of Louisville

11:35 a.m. **Consult, Coordinate, and Critique: How the University of Minnesota Department of Family Medicine Came To Be Ranked #2—✱**Bruce A. Center, The University of Minnesota; Anne M. Weber-Main, The University of Minnesota; Carole J. Bland, The University of Minnesota

11:55 a.m. **Teaching Statistics in the Consulting Environment: Experiences at the University of Iowa Biostatistics Consulting Center—✱**M. Bridget Zimmerman, The University of Iowa

12:15 p.m. **Floor Discussion**

253 CC-108

Inference of Structure and Information Flow in Networks—Invited

IMS, Section on Statisticians in Defense and National Security

Organizer(s): Robert Nowak, University of Wisconsin-Madison

Chair(s): Eric Kolaczyk, Boston University

10:35 a.m. **Bayesian Inference for Stochastic Biochemical Network Parameters via a Diffusion Approximation—✱**Andrew Golightly, Newcastle University

11:05 a.m. **Optimal Designs for Network Traffic Measurement Schemes—**George Michailidis, The University of Michigan; ✱Harsh Singhal, Unverisity of Michigan

11:35 a.m. **Network Inference from Co-Occurrences—✱**Robert Nowak, University of Wisconsin-Madison

12:05 a.m. **Floor Discussion**

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

254 CC-703

The SAMSI Program on Risk Analysis, Extreme Events, and Decision Theory—Topic-Contributed

Section on Risk Analysis

Organizer(s): Richard L. Smith, The University of North Carolina at Chapel Hill

Chair(s): Nell Sedransk, National Institute of Statistical Sciences

10:35 a.m. **Extreme Co-Movements and Extreme Impacts in High-Frequency Data in Finance—✱**Zhengjun Zhang, University of Wisconsin-Madison

10:55 a.m. **Modelling Multivariate Extreme Dependence—✱**Xiao Qin, Beihang University/University of North Carolina; Richard L. Smith, The University of North Carolina at Chapel Hill; Ruoen Ren, Beihang University

11:15 a.m. **Multivariate Analyses of Extremes—**Luis R. Pericchi, University of Puerto Rico; Beatriz Mendes, Universidade Federal de Rio de Janeiro; Scott Sisson, University New South Wales; ✱Abel Rodriguez, University of California, Santa Clara

11:35 a.m. **Downscaling Extremes: A Comparison of Extreme Value Distributions in Point-Source and Gridded Precipitation Data—✱**Elizabeth C. Shamseldin, The University of North Carolina at Chapel Hill; Richard L. Smith, The University of North Carolina at Chapel Hill; Stephan Sain, National Center for Atmospheric Research; Dan Cooley, Colorado State University; Linda O. Mearns, National Center for Atmospheric Research

11:55 a.m. **Hurricanes and Global Warming—✱**Richard L. Smith, The University of North Carolina at Chapel Hill; Evangelos Evangelou, The University of North Carolina at Chapel Hill; Gabriel A. Vecchi, Geophysical Fluid Dynamics Laboratory; Thomas R. Knutson, Geophysical Fluid Dynamics Laboratory

12:15 p.m. **Floor Discussion**

255 CC-601

● ▲ Survival Analysis Methods—Topic-Contributed

Biometrics Section, Biopharmaceutical Section, WNAR

Organizer(s): M. Brent McHenry, Bristol-Myers Squibb Company

Chair(s): M. Brent McHenry, Bristol-Myers Squibb Company

10:35 a.m. **Intent-to-Treat Duration of Response: Statistical Issues in Study Design and Analysis—✱**Ritwik Sinha, Bristol-Myers Squibb Company; Tai-Tsang Chen, Bristol-Myers Squibb Company; Chao Zhu, Bristol-Myers Squibb Company

10:55 a.m. **Use of Classification Tree Techniques To Determine the Likelihood of Pretransplant Death Among Patients Awaiting Liver Transplantation—✱**Chung-Chou Chang, University of Pittsburgh; Fiona M. Callaghan, University of Pittsburgh

11:15 a.m. **Extensions of Frailty Models for Multivariate Grouped Survival Data—✱**Andrea B. Troxel, University of Pennsylvania; Denise A. Esserman, The University of North Carolina at Chapel Hill

11:35 a.m. **Censored Geometric Regression with Application to Human Subfertility—✱**Steven J. Schwager, Cornell University; Daniel Zelterman, Yale University

11:55 a.m. **Models for Longitudinal Survival Data—**✱Stuart R. Lipsitz, Harvard Medical School; Debajyoti Sinha, Florida State University; M. Brent McHenry, Bristol-Myers Squibb Company

12:15 p.m. **Floor Discussion**

256 CC-605

● ▲ Beyond Design: Reaching Out with NHANES Data—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section, WNAR, Section on Health Policy Statistics

Organizer(s): Sylvia Dohrmann, Westat, Inc.

Chair(s): Jennifer Madans, Centers for Disease Control and Prevention

10:35 a.m. **When Good Weights Seem Bad: Nuances of Sample Weights in the NHANES—**✱Lester R. Curtin, Centers for Disease Control and Prevention; Sylvia Dohrmann, Westat, Inc.

10:55 a.m. **Producing Local Area Estimates for NHANES—**✱Leyla Mohadjer, Westat, Inc.; Robert E. Fay, Westat, Inc.; Lester R. Curtin, Centers for Disease Control and Prevention

11:15 a.m. **Challenges and Consequences from Combining National Health Surveys with Air Monitoring Data—**✱Jennifer D. Parker, Centers for Disease Control and Prevention; Lester R. Curtin, Centers for Disease Control and Prevention; Nataliya Kravets, NOVA Research

11:35 a.m. **Comparing Methods for Left-Censored Data Using Two-Parameter Lognormal and Johnson's SB Distributions: The Case of Environmental Data from NHANES—**✱Philip Villanueva, U.S. Environmental Protection Agency

11:55 a.m. Disc: Sarah Nusser, Iowa State University

12:15 p.m. **Floor Discussion**

257 CC-710

Statistical Innovations in Health Services Research—Topic-Contributed

Section on Health Policy Statistics, Section on Quality and Productivity, WNAR

Organizer(s): Joseph C. Gardiner, Michigan State University

Chair(s): Joseph C. Gardiner, Michigan State University

10:35 a.m. **A Stochastic Frontier Model for Cost-Effectiveness Analysis with Clustered Data—**✱Zhehui Luo, RTI International; Jeremy W. Bray, RTI International; Alexander Cowell, RTI International; Joseph C. Gardiner, Michigan State University

10:55 a.m. **Improved Health Policy Decisionmaking via Efficiency Gains with Recurrent Events—**✱Edsel A. Pena, University of South Carolina; Akim M. Adekpedjou, University of Missouri-Rolla; Jonathan Quiton, Western Kentucky University

11:15 a.m. **Use of Spatially Adjusted Bayesian Additive Regression Tree (SBART) Model To Reduce Ecological Fallacy in Health Services Research—**✱Ya-Chen T. Shih, The University of Texas M.D. Anderson Cancer Center; Song Zhang, The University of Texas Southwestern Medical Center

11:35 a.m. **A New Approach for the Analysis of Stage-Sequential Development—**✱Hwan Chung, Michigan State University

11:55 a.m. Disc: M. Hossein Rahbar, The University of Texas Health Science Center at Houston

12:15 p.m. **Floor Discussion**

258 CC-706

● ▲ Data Analysis Issues in Medical Device Trials—Topic-Contributed

Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): Vandana Mukhi, U.S. Food and Drug Administration; Jeng Mah, American Medical Systems, Inc.

Chair(s): Zengri J. Wang, Medtronic, Inc.

10:35 a.m. **Subgroup Analysis—**✱Chul H. Ahn, U.S. Food and Drug Administration

10:55 a.m. **A Comparison of Noninferiority Testing Methods for Survival Endpoints—**✱Brian P. Johnson, Boston Scientific Corporation

11:15 a.m. **Group Sequential Trial Design To Test Both Superiority and Noninferiority—**✱Vandana Mukhi, U.S. Food and Drug Administration; Yongzhao Shao, Iowa State University

11:35 a.m. **Application of Bootstrap and Jackknife Methods in Clinical Risk Score Generation—**✱Aijun Song, Boston Scientific Corporation; Yun Lu, Boston Scientific Corporation; Kevin Najarian, Boston Scientific Corporation

11:55 a.m. **Covariate-Adjusted Putative Placebo Analysis in Active-Controlled Clinical Trials—**✱Zhiwei Zhang, U.S. Food and Drug Administration

12:15 p.m. **Floor Discussion**

259 CC-102

● Statistics for Climate Models—Topic-Contributed

Section on Bayesian Statistical Science, Section on Statistics and the Environment

Organizer(s): Bruno Sanso, University of California, Santa Cruz

Chair(s): Doug Nychka, National Center of Atmospheric Research

10:35 a.m. **Learning About Complex Physical Systems from Multiple Computer Models—**✱Leanna L. House, University of Durham; Michael Goldstein, University of Durham; Jonathon Rougier, University of Bristol

10:55 a.m. **Computional Approaches for Parameter Estimation in Climate Models—**Alejandro Villagran, University of New Mexico; ✱Gabriel Huerta, University of New Mexico; Charles Jackson, The University of Texas at Austin; Mrinal Sen, The University of Texas at Austin

11:15 a.m. **Hierarchical Calibration of a Climate Model—**✱James Gattiker, Los Alamos National Laboratory; Dave Higdon, Los Alamos National Laboratory

11:35 a.m. **Estimating the Probability Distribution of Climate System Properties—**✱Bruno Sanso, University of California, Santa Cruz; Chris Forest, Massachusetts Institute of Technology

11:55 a.m. **Parameter Estimation for Computationally Intensive Nonlinear Regression with an Application to Climate Modeling—**✱Dorin Drignei, Oakland University; Doug Nychka, National Center of Atmospheric Research; Chris Forest, Massachusetts Institute of Technology

12:15 p.m. **Floor Discussion**

260 CC-107

● ▲ Dimension Reduction, Variable Selection, and Correlation Pursuit in Semiparametric Settings—Topic-Contributed

Section on Nonparametric Statistics, WNAR, IMS

Organizer(s): Wenxuan Zhong, University of Illinois at Urbana-Champaign

Chair(s): Yijun Zuo, Michigan State University

10:35 a.m. **Dimension Reduction with Possible Application in Bioinformatics—**✱Wenxuan Zhong, University of Illinois at Urbana-Champaign

10:55 a.m. **A Link-Free Method for Testing the Significance of Predictors—**✱Peng Zeng, Auburn University

11:15 a.m. **An Asymptotic Analysis of the Stepwise Correlation Pursuit Variable Selection Method—**✱Tingting Zhang, Harvard University; Wenxuan Zhong, University of Illinois at Urbana-Champaign; Jun S. Liu, Harvard University

11:35 a.m. **Selective Partially Augmented Naïve Bayes with Model Averaging—**✱Yuan Yuan, Harvard University; Jun S. Liu, Harvard University

11:55 a.m. **Penalized Linear Methods for Estimation and Variable Selection in Index Models—**✱Michael Y. Zhu, Purdue University; Jian Zhang, Purdue University

12:15 p.m. **Floor Discussion**

261 CC-103

● ▲ Statistical Graphics for Analysis and Reporting of Clinical Data—Topic-Contributed

Section on Statistical Graphics, Biopharmaceutical Section

Organizer(s): Michael O'Connell, Insightful Corporation

Chair(s): Michael O'Connell, Insightful Corporation

10:35 a.m. **Application of Statistical Graphics in Clinical Trial Data Analysis—**✱Julia Wang, Johnson & Johnson Pharmaceutical R&D, LLC; Surya Mohanty, Johnson & Johnson Pharmaceutical R&D, LLC

10:55 a.m. **Multivariate Display of Laboratory Data for Safety Analysis—**✱Charles F. Contant, Pfizer Global Research and Development; Robb J. Muirhead, Pfizer Global Research and Development

11:15 a.m. **Graphical Exploration for Cardiovascular Safety Data in Clinical Trials—✱**Ihab G. Girgis, Johnson & Johnson Pharmaceutical R&D, LLC; Surya Mohanty, Johnson & Johnson Pharmaceutical R&D, LLC

11:35 a.m. **Reporting of Safety and Efficacy Data Collected in Clinical Trials: A Statistical Reviewer's Perspective—✱**Mat Soukup, U.S. Food and Drug Administration

11:55 a.m. **Graphical Analysis of Adverse Event Data—✱**Haijun Ma, Amgen, Inc.; H. Amy Xia, Amgen, Inc.

12:15 p.m. **Floor Discussion**

262 CC-712
Joint Student Paper Competition Presentations—Topic-Contributed

Social Statistics Section, Section on Government Statistics, Section on Survey Research Methods

Organizer(s): Jana Asher

Chair(s): Dean Resnick, U.S. Census Bureau

10:35 a.m. **Local Post-Stratification and Diagnostics in Dual System Accuracy and Coverage Evaluation for U.S. Census—✱**Cheng Yong Tang, Iowa State University; Song Xi Chen, Iowa State University

10:55 a.m. **The Prior Selection and Approximations in a Hierarchical Bayes Approach: An Application to the Small-Area Income and Poverty Estimation—✱**Santanu Pramanik, University of Maryland, College Park

11:15 a.m. **Bayesian Penalized Spline Model-Based Estimation for Finite Population Proportion in Unequal Probability Sampling—✱**Qixuan Chen, The University of Michigan; Michael R. Elliott, The University of Michigan; Roderick J. Little, The University of Michigan

11:35 a.m. **Model Selection with Partially Synthetic Data—✱**Satkartar Kinney, National Institute of Statistical Sciences; Jerome Reiter, Duke University; James Berger, Duke University/ SAMSI

11:55 a.m. **Calculating Cell Bounds in Contingency Tables Based on Conditional Frequencies—✱**Byran J. Smucker, The Pennsylvania State University; Aleksandra B. Slavkovic, The Pennsylvania State University

12:15 p.m. **Floor Discussion**

Topic-Contributed Panel 10:30 a.m.–12:20 p.m.

263 CC-109
Research Using the Survey of Attitudes Toward Statistics (SATS)—Topic-Contributed

Section on Statistical Education

Organizer(s): Marjorie E. Bond, Monmouth College

Chair(s): Leigh V. Slauson, Otterbein College

Panelists: ✱Marjorie E. Bond, Monmouth College
✱Candace Schau, CS Consultants
✱Rebecca L. Pierce, Ball State University
✱Sue Schou, Idaho State University

12:15 p.m. **Floor Discussion**

Contributed Sessions 10:30 a.m.–12:20 p.m.

264 CC-711
Problems with RDD Surveys—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): Jeri M. Mulrow, National Science Foundation

10:35 a.m. **Statistical Challenges Facing Cell Phone Surveys—✱**Michael P. Battaglia, Abt Associates, Inc.; Martin R. Frankel, Baruch College and Abt Associates Inc.; Ali H. Mokdad, Centers for Disease Control and Prevention

10:50 a.m. **Adjustment for Noncoverage of Nonlandline Telephone Households in an RDD Survey—** Sadeq R. Chowdhury, National Opinion Research Center; ✱Robert Montgomery, National Opinion Research Center; Philip J. Smith, Centers for Disease Control and Prevention

11:05 a.m. **Cell Phone–Only Household in a National Mail Survey: Who Are They?—✱**Daifeng Han, Westat, Inc.; David Cantor, Westat, Inc.

11:20 a.m. **Considerations for the Implementation of an RDD Telephone Survey—✱**David Ferraro, Westat, Inc.; Tom Krenzke, Westat, Inc.; Jill Montaquila, Westat, Inc.

11:35 a.m. **Differential Bias Between the Cell Telephone–Only Population and the Landline Population in an Immunization Survey—✱**Martin Barron, National Opinion Research Center; Kirk Wolter, National Opinion Research Center; Cindy Howes, National Opinion Research Center; Karen Wooten, National Center for Immunization and Respiratory Diseases; Meena Khare, National Center for Health Statistics

11:50 a.m. **Responsive Design for Random Digit Dial Surveys Using Auxiliary Survey Process Data and Contextual Data—✱**Sunghee Lee, University of California, Los Angeles; Tom Belin, University of California, Los Angeles; Christopher Pankonin, University of California, Los Angeles; J. Michael Brick, Westat, Inc.; Jennifer Edgar, Bureau of Labor Statistics

12:05 p.m. **Where Have All the Smokers Gone? A Simple Strategy for Targeting Rare Subgroups for RDD Studies—✱**Mansour Fahimi, Marketing Systems Group; Douglas Currivan, RTI International; Jeniffer I. Perez, RTI International; Matthew Farrelly, RTI International

265 CC-607

● Imputation for Item Nonresponse—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Jill Montaquila, Westat, Inc.

10:35 a.m. **Imputation of Missing Data for the Pre-Elementary Education Longitudinal Survey—✱**Lin Li, Westat, Inc.; Annie Lo, Westat, Inc.; Greg Norman, Westat, Inc.; Hyunshik Lee, Westat, Inc.

10:50 a.m. **A Study of Imputation Alternatives for the Quarterly Financial Report—✱**Melvin J. McCullough, U.S. Census Bureau; Donald M. Luery, U.S. Census Bureau; Terry L. Pennington, U.S. Census Bureau

11:05 a.m. **Fractional Regression Nearest Neighbor Imputation—✱**Minhui Paik, Iowa State University

11:20 a.m. **Study of Item Nonresponse for a Sample of Questionnaires for the 2007 Commodity Flow Survey (CFS)—✱**Hossain Eftekhari-Sanjani, U.S. Department of Transportation; Ronald Duych, U.S. Department of Transportation; Joy Sharp, U.S. Department of Transportation; Michael Margreta, U.S. Department of Transportation

11:35 a.m. **Data-Driven Post Modeling Sensitivity Analysis To Detect Missing Data Mechanism—✱**Mortaza Jamshidian, California State University, Fullerton

11:50 a.m. **The Fraction of Missing Information as a Tool for Monitoring the Quality of Survey Data—✱**James Wagner, The University of Michigan

12:05 p.m. **General Methods and Algorithms for Modeling and Imputing Discrete Data Under a Variety of Constraints—✱**William E. Winkler, U.S. Census Bureau

266 CC-606

Missing Data Methods—Contributed

Biometrics Section, Section on Survey Research Methods

Chair(s): Guanghui Wei, The University of Michigan

10:35 a.m. **Using an Informative Missing Data Model To Predict the Ability To Assess Recovery of Balance Control After Spaceflight—✱**Alan H. Feiveson, National Aeronautics and Space Administration; Scott Wood, Universities Space Research Association; William H. Paloski, National Aeronautics and Space Administration; Varsha Jain, Imperial College, London

10:50 a.m. **Pattern Mixture Models Incorporating Reasons for Dropout—✱**Sachiko Miyahara, University of Pittsburgh; Meredith Lotz, University of Pittsburgh; Gong Tang, University of Pittsburgh

11:05 a.m. **A Unified Capture-Recapture Model—✱**Matthew Schofield, Columbia University; Richard Barker, University of Otago

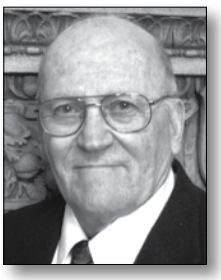
11:20 a.m. **Assessing Bias Associated with Missing Data from Joint Canada/U.S. Survey of Health: An Application—✱**Sunita Ghosh, Alberta Cancer Board; Punam Pahwa, University of Saskatchewan

11:35 a.m. **Modeling of Longitudinal Biomarker Data with Dropout and Death Using a Weighted Pseudo–Maximum Likelihood Method—✱**M. Abdus Sattar, University of Pittsburgh; Lisa Weissfeld, University of Pittsburgh; Gina D'Angelo, Washington University School of Medicine

11:50 a.m. **Respondent-Driven Sampling in an HIV at-Risk Population: The Analogy with Markov Chain Monte Carlo—✱**Robert E. Weiss, University of California, Los Angeles; Jason Wang, University of California, Los Angeles; Pamina Gorbach, BERG; Steve Shoptaw, University of California, Los Angeles

12:05 p.m. **Floor Discussion**

ASA Presidential Address & Awards Sessions



Tony Lachenbruch
ASA President

Tuesday, August 5, 8:00 p.m. – 9:30 p.m.
Colorado Convention Center,
Four Seasons Ballroom

Is your associate, professor, student, colleague, friend, or organization being recognized at the Joint Statistical Meetings in Denver?

Samuel S. Wilks Memorial Award

Edward C. Bryant Scholarship

Gertrude M. Cox Scholarship

Gottfried E. Noether Awards

W. J. Youden Award in Lab Testing

★ Statistics in Chemistry Award
★ ASA Fellows
★ Founders Award
★ Outstanding Statistical Application Award
★ Statistical Partnerships among Academe, Industry, and Government (SPAIG) Award

Plan to attend the ASA Presidential Address and Awards Session for the recognition of the ASA's most distinguished members.

267 CC-608

● Methods for Survival Time Analyses—Contributed

Section on Statistics in Epidemiology, Section on Nonparametric Statistics, Section on Quality and Productivity, Biometrics Section

Chair(s): Jayawant Mandrekar, Mayo Clinic

10:35 a.m. **Semiparametric Methods for Estimating the Effect on Survival of an Experimental Time-Dependent Treatment—✱**Douglas E. Schaubel, The University of Michigan

10:50 a.m. **Structural Models for the Effect of a Time-Varying Exposure on Survival—✱**Jessica G. Young, Harvard School of Public Health; Miguel A. Hernán, Harvard School of Public Health; Sally Picciotto, Harvard School of Public Health; James Robins, Harvard School of Public Health

11:05 a.m. **Joint Model of Longitudinal Binary Data with Discrete Survival Time—✱**Kirsten Lum, National Institutes of Health; Rajeshwari Sundaram, National Institutes of Health; Germaine Buck Louis, National Institutes of Health

11:20 a.m. **Semiparametric Methods for the Analysis of Clustered Survival Data from Case-Cohort Studies—✱**Hui Zhang, The University of Michigan; Douglas E. Schaubel, The University of Michigan; John Kalbfleisch, The University of Michigan

11:35 a.m. **A Method for Finding the Nadir of Nonmonotonic Relationships—✱**Fei Tan, Florida State University

11:50 a.m. **Exponential Tilt Models in the Presence of Censoring—✱**Chi Wang, Johns Hopkins University; Zhiqiang Tan, Rutgers, The State University of New Jersey; Thomas A. Louis, Johns Hopkins University

12:05 p.m. **A Multivariate Classification Tree for Survival Data with Competing Risks—✱**Fiona M. Callaghan, University of Pittsburgh

268 CC-202

● Solving Statistical Problems in Marketing Science—Contributed

Section on Statistics and Marketing

Chair(s): Igor Mandel, Advanced Marketing Models

10:35 a.m. **Data Mining Pitfalls: The Nontechnical Killer Errors—✱**Sam Koslowsky, Harte Hanks

10:50 a.m. **Combined Personalization Approach to Different Stages of Marketing—✱**Hye-Kyoung Kim, Intellidyn Corp.; Dmitri V. Kuznetsov, Intellidyn Corp.

11:05 a.m. **Opinion Spreading and Personalization in Marketing—✱**Dmitri V. Kuznetsov, Intellidyn Corp.

11:20 a.m. **Customer Segmentation: Data Mining Application for the Auto Insurance Industry—✱**David S. Dobson, North Carolina State University

11:35 a.m. **Statistical Assessment of the Sample Size Requirement for Projection of the Automobile Sales Volume in the U.S. Market—✱**Keiko I. Powers, J.D. Power and Associates

11:50 a.m. **A System of Models for the Process of Automobile Sales Behavior—✱**James G. Wendelberger, Urban Science Applications, Inc.

12:05 p.m. **Local Regression with Random Censored Data for Customer Wallet Data Mining—** S. Tom Au, AT&T Labs - Research; ✱William Pepe, AT&T Labs - Research

269 CC-106

● Technology for Teaching Statistics in the Traditional and Online Classrooms—Contributed

Section on Statistical Education

Chair(s): Gail Tudor, Husson College

10:35 a.m. **Tablet PC Applications in Statistics Education, Part I—✱**Christopher R. Bilder, University of Nebraska-Lincoln; Christopher J. Malone, Winona State University

10:50 a.m. **Tablet PC Applications in Statistics Education, Part II—✱**Christopher J. Malone, Winona State University; Christopher R. Bilder, University of Nebraska-Lincoln

11:05 a.m. **Look, Ma, No Textbook! Computerized Statistics Learning—✱**Sandra Clarkson, Hunter College of CUNY; Bill Williams, Hunter College of CUNY

11:20 a.m. **Expect More, Get More: The Joys of Teaching Online—✱**Olcay Akman, Illinois State University

11:35 a.m. **Assessment of Online Statistics Courses—✱**David W. Stockburger, U.S. Air Force Academy; S. David Kriska, The Ohio State University

11:50 a.m. **The Use of Microsoft Excel for Statistical Analyses: An Update—✱**John D. McKenzie, Jr., Babson College

12:05 a.m. **Floor Discussion**

270 CC-701

● Topics in Physical and Engineering Sciences—Contributed

Section on Physical and Engineering Sciences

Chair(s): Peter Hovey, University of Dayton

10:35 a.m. **The Importance of Identifying Different Components of Mixture Distribution in Reliability Predictions—✱**Yili Hong, Iowa State University; William Q. Meeker, Iowa State University

10:50 a.m. **Generalized Inferences for the Common Scale Parameter of the Several Pareto Populations—✱**Sumith Gunasekera, University of Nevada, Las Vegas; Malwane Ananda, University of Nevada, Las Vegas

11:05 a.m. **On Classification of Bivariate Distributions Based on Mutual Information—✱**Mohamed Habibullah, Northeastern University; Mohammad Ahsanullah, Rider University

11:20 a.m. **Inference on Multiresolution Spatial-Temporal Process with Application—✱**Wanli Min, IBM T. J. Watson Research Center

11:35 a.m. **Analyzing Hybrid Randomized Response Data with a Binomial Selection Procedure—✱**Feiyi Jia, Oakland University; Gary C. McDonald, Oakland University

11:50 a.m. **On Diffusion Processes with Gaussian Marginals—✱**Rabab S. Jafri, University of Nottingham; Sergey Utev, University of Nottingham

12:05 p.m. **Floor Discussion**

271 CC-113

▲ Advances in Functional and Related Data Analysis—Contributed

Section on Nonparametric Statistics, Section on Statistical Computing, IMS

Chair(s): Sam Efromovich, The University of Texas at Dallas

10:35 a.m. **Functional Singular Value Decomposition and Applications—✱**Wenjing Yang, University of California, Davis; Hans G. Müller, University of California, Davis

10:50 a.m. **Manifold Models for Functional Data—✱**Dong Chen, University of California, Davis; Hans G. Müller, University of California, Davis

11:05 a.m. **BLUP for Functional Data—✱**Ana Kupresanin, Arizona State University

11:20 a.m. **A Generalized CP Criterion for Evaluating Derivative Estimates—✱**Richard Charnigo, University of Kentucky; Cidambi Srinivasan, University of Kentucky

11:35 a.m. **Improved Covariance Inversion and Derivative Estimation for Sparse and Irregularly Observed Functional Data—✱**Bitao Liu, University of California, Davis; Hans G. Müller, University of California, Davis

11:50 a.m. **A Distribution-Free Test of Constant Mean in Linear Mixed Effects Models—✱**Xinlei Wang, Southern Methodist University; Johan Lim, Yonsei University

12:05 p.m. **Robust Curve Classification—**Hyejin Shin, Auburn University; ✱Nedret Billor, Auburn University

272 CC-104

● Nonparametric and Semiparametric Bayesian Methods—Contributed

Section on Bayesian Statistical Science, Section on Nonparametric Statistics, Section on Statistical Computing

Chair(s): Sourish Das, University of Connecticut

10:35 a.m. **Bayesian Clustering with Regression—✱**Fernando A. Quintana, PontifÌcia Universidad Católica de Chile; Peter Mueller, The University of Texas M.D. Anderson Cancer Center; Gary L. Rosner, The University of Texas M.D. Anderson Cancer Center

10:50 a.m. **A Mixture of Semiparametric Models—✱**Yeonok Lee, The University of Iowa

11:05 a.m. **Nonparametric Bayesian Models with Various Base Measures—✱**Ju Hee Lee, The Ohio State University

11:20 a.m. **Bayesian Semiparametric Modeling and Functional Data Analysis with Application to the Texas Lottery—✱**Anandamayee Majumdar, Arizona State University; Randall Eubank, Arizona State University

11:50 a.m. **The Probit Stick-Breaking Process Mixture for Conditional Distribution Modeling with Variable Selection—✱**Yeonseung Chung, The University of North Carolina at Chapel Hill; David Dunson, National Institute of Environmental Health Science

12:05 p.m. **Using Prior Information in Bayesian Nonparametric Models—✱**David B. Dahl, Texas A&M University

273 CC-112

Government Statistics—Contributed

Business and Economics Statistics Section, Social Statistics Section

Chair(s): Aaron Tenenbein, New York University, Stern

10:35 a.m. **Frame Improvements to Statistics Canada Business Register—✱**Yanick Beaucage, Statistics Canada; Wesley Yung, Statistics Canada

10:50 a.m. **The Quality Assurance Survey and Its Impact on the Canadian Business Register—✱**Tyler Kirkland, Statistics Canada; Zeeshan Mahmood, Statistics Canada; Caroline Pelletier, Statistics Canada

11:05 a.m. **An Analysis of Key Differences in Micro Data: Results from the Business List Comparison Project—✱**Lucia Foster, U.S. Census Bureau; Kristin Fairman, Bureau of Labor Statistics; C. J. Krizan, U.S. Census Bureau; Ian Rucker, Bureau of Labor Statistics

11:20 a.m. **Is the Grass Always Greener on the Other Side? Assessing the Determinants of Individual Well-Being Across Europe—**Luisa Corrado, University of Cambridge; ✱Aqib Aslam, University of Cambridge

11:35 a.m. **Multiple Imputation Approaches for Right-Censored Wages in the German IAB Employment Register—✱**Thomas Buettner, Institute for Employment Research; Susanne Rässler, Otto-Friedrich University Bamberg

11:50 a.m. **Disclosure Protection: A New Approach to Cell Suppression—✱**Bei Wang, U.S. Census Bureau

12:05 p.m. **Remeasuring the Size of the World's Economy—✱**Frederic A. Vogel, The World Bank

274 CC-602

Procedures for Nonparametric Regression Modeling—Contributed

Biometrics Section, Section on Nonparametric Statistics

Chair(s): Qian Graves, U.S. Food and Drug Administration

10:35 a.m. **Covariate Adjusted Correlation Analysis with Application to FMR1 Premutation—✱**Danh V. Nguyen, University of California, Davis; Damla Senturk, The Pennsylvania State University

10:50 a.m. **Self-Modeling Regression with Regression Splines and Random Curve-Specific Parameters: Application to Arterial Pulse Pressure Waveforms—✱**Lyndia C. Brumback, University of Washington; Douglas Tommet, Institute for Aging Research; Richard Kronmal, University of Washington

11:05 a.m. **Using Bernstein Polynomials To Model Misclassification in BI-RADS Breast Density Measurements—✱**Charlotte C. Gard, University of Washington; Elizabeth R. Brown, University of Washington

11:20 a.m. **A Varying-Coefficient Model for the Evaluation of Time-Varying Concomitant Intervention Effects in Longitudinal Studies—✱**Colin O. Wu, National Heart, Lung, and Blood Institute; Xin Tian, National Heart, Lung, and Blood Institute; Heejung Bang, Weill Medical College of Cornell University

11:35 a.m. **Inference on Quantile Regression for Heteroscedastic Mixed Models—✱**Huixia Wang, North Carolina State University

11:50 a.m. **Varying Coefficient Model for Epigenetic Modifications—✱**Dong Wang, University of Nebraska-Lincoln

12:05 p.m. **Nugget Estimation for a Class of Nonparametric Semivariograms—✱**Jeffrey Spence, The University of Texas Southwestern Medical Center; Patrick Carmack, The University of Texas Southwestern Medical Center; Qihua Lin, The University of Texas Southwestern Medical Center; Richard Gunst, Southern Methodist University; William R. Schucany, Southern Methodist University

275 CC-604

Case-Control Studies and Logistic Regression: New Extensions—Contributed

Biometrics Section, Biopharmaceutical Section, Section on Statistics in Epidemiology

Chair(s): Jorge G. Morel, Procter & Gamble

10:35 a.m. **Optimum Two-Stage Sampling with Inexpensive Error-Prone and Expensive Error-Free Measures for Designing a Case-Control Study—✱**Jun-mo Nam, National Cancer Institute

10:50 a.m. **Bias Reduction and a Solution for Separation of Logistic Regression with Missing Covariates—✱**Tapabrata Maiti, Iowa State University; Vivek Pradhan, Cytel Inc.

11:05 a.m. **Statistical Inferences for Outcome-Dependent Sampling Design with Multivariate Outcomes—✱**Tsui-Shan (Eva) Lu, The University of North Carolina at Chapel Hill; Haibo Zhou, The University of North Carolina at Chapel Hill

11:20 a.m. **Association Models for Clustered Data with Binary and Continuous Responses—✱**Lanjia Lin, Florida State University; Stuart R. Lipsitz, Harvard Medical School; Dipankar Bandyopadhyay, Medical University of South Carolina; Debajyoti Sinha, Florida State University

11:35 a.m. **Fitting Stratified Proportional Odds Models by Amalgamating Conditional Likelihoods—** Bhramar Mukherjee, The University of Michigan; ✱Jaeil Ahn, The University of Michigan

11:50 a.m. **Exact Trend Tests for Correlated Categorical Data—✱**Chris Corcoran, Utah State University; Pralay Senchuadhuri, Cytel Inc.

12:05 p.m. **Floor Discussion**

276 CC-704

● ▲ Multiple Comparisons in Clinical Trials—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Yingwen Dong, Merck & Co., Inc.

10:35 a.m. **On the Generalization of Closed Testing Procedures with Null Hypotheses Grouped into Families—✱**Hanjoo Kim, University of Pennslyvania School of Medicine; A. Richard Entsuah, Merck Research Laboratories; Justine Shults, University of Pennsylvania

10:50 a.m. **Resampling-Based Measures for Understanding the Nature of Treatment Effects of Multiple Endpoints in Clinical Trials—✱**Mushfiqur M. Rashid, U.S. Food and Drug Administration; Mohammad F. Huque, U.S. Food and Drug Administration

11:05 a.m. **Type I Error Rate Adjustment for Superiority Test Conditional on Establishment of Noninferiority in Clinical Trials—✱**Jiacheng Yuan, Medtronic CardioVascular; Tiejun Tong, University of Colorado, Boulder

11:20 a.m. **Power and Type I Error Comparisons for Seven Multiplicity Adjustment Methods—✱**Jin Xu, Merck & Co., Inc.; Li David, Merck & Co., Inc.; Kenneth Liu, Merck & Co., Inc.; Ivan S.F. Chan, Merck Research Laboratories; Jie Chen, Merck & Co., Inc.

11:35 a.m. **Estimation After Step-Down Tests in the Dose-Finding Studies—✱**Yi-Hsuan Tu, National Cheng Kung University; Ying Kuen Cheung, Columbia University

11:50 a.m. **Reverse Fixed-Sequence Procedures in Clinical Trials—✱**Alex Dmitrienko, Eli Lilly and Company; Suktae Choi, Eli Lilly and Company; Ajit C. Tamhane, Northwestern University; Don Johns, Eli Lilly and Company

12:05 p.m. **Partitioning K Treatments According to Multivariate Equivalence with Respect to a Standard: The Common Covariance Case—✱**Weixing Cai, Syracuse University; Pinyuen Chen, Syracuse University

277 CC-101

Inference Using Simulation—Contributed

Section on Statistical Computing, Section on Nonparametric Statistics

Chair(s): Trevor Park, University of Florida

10:35 a.m. **Saddlepoint-Based Bootstrap Inference for Quadratic Estimating Equations—✱**Robert Paige, Texas Tech University

10:50 a.m. **Applying Resampling To Analyze the Sensitivity of a Hypothesis Test to Confounding—✱**William M. Goodman, University of Ontario Institute of Technology

11:05 a.m. **On Markov Chains with Periodic Transition Probabilities—✱**Rajeeva L. Karandikar, Cranes Software Internatonal Limited

11:20 a.m. **Bootstrap Bandwidth Selection for Estimating a Conditional Probability—✱**Sundar Subramanian, New Jersey Institute of Technology

11:35 a.m. **Using Bootstrap To Construct Adjusted Likelihood-Based Confidence Intervals—**✱Esa I. Uusipaikka, University of Turku; Kaisu Ikonen, University of Turku; Anna Wiksten, University of Turku

11:50 a.m. **Relative Entropy Measures of Asymmetry with Applications—**✱Bhaskar Bhattacharya, Southern Illinois University Carbondale

12:05 p.m. **Simulation Studies for Mixture Transition Distribution Model in High-Order Markov Chains—**Din Chen, South Dakota State University; ✱Y. L. Lio, University of South Dakota

Invited Poster Presentations 10:30 a.m.–12:20 p.m.

278 CC-F Lobby

Invited Poster Presentations: Clinical Trial Designs—Invited

Biometrics Section

Organizer(s): Yisheng Li, The University of Texas M.D. Anderson Cancer Center

Chair(s): John Castelloe, SAS Institute Inc.

Clinical Trial Designs

32 **Sequential Continual Reassessment Method for Two-Dimensional Dose Finding—**✱Ying Yuan, The University of Texas M.D. Anderson Cancer Center; Guosheng Yin, The University of Texas M.D. Anderson Cancer Center

33 **Optimal Adaptive Randomized Designs for Clinical Trials—**✱Yi Cheng, Indiana University South Bend

34 **Three-Dose Cohort Designs in Cancer Phase I Trials—**✱Bo Huang, Pfizer, Inc.

35 **Dose-Finding in Phase I Clinical Trials Based on Toxicity Probability Intervals—**✱Yuan Ji, The University of Texas M.D. Anderson Cancer Center

36 **Identifying Optimal Cumulative Treatment Regimes in Early-Phase Clinical Trials—**✱Thomas M. Braun, The University of Michigan

Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

279 CC-F Lobby

Contributed Poster Presentations—Contributed

Biometrics Section, Biopharmaceutical Section, Business and Economics Statistics Section, ENAR, IMS, Section on Bayesian Statistical Science, Section on Health Policy Statistics, Section on Statistics and Marketing, Section on Statistics in Epidemiology

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Business, financial, and marketing statistics

37 **A Longitudinal Study of Nigerian Stock Prices—**✱Hamadu Dallah, University of Lagos; Ismaila A. Adeleke, University of Lagos

38 **The Transformed GARCH Model for the Asymmetric Volatility—**In-Kwon Yeo, Sookmyung Women's University; ✱Juyeon Park, Sookmyung Women's University

Clinical trials, drug discovery

39 **Statistics for Comparing Two Treatments with Placebo, with Selection of Better Treatment—**✱Xianhuang Zhou, Bristol-Myers Squibb Company

40 **Exploring the Benefits of Adaptive Sequential Designs in Time-to-Event Endpoint Settings—**✱Sarah Emerson, Stanford University; Scott S. Emerson, University of Washington; Kyle Rudser, University of Washington

41 **Multiple Imputation of Ordinal and Count Outcomes in a Multiple Sclerosis Clinical Trial Using Data at Dropout—**Peter B. Imrey, The Cleveland Clinic and Case Western Reserve University; ✱John Barnard, The Cleveland Clinic; Matthew Karafa, The Cleveland Clinic; The Avonex Combination Trial (ACT) Investigators, The Cleveland Clinic Foundation

42 **A Dunnett-Bonferroni–Based Parallel Gatekeeping Procedure for Dose-Response Clinical Trials with Multiple Endpoints—**✱Isaac Nuamah, Johnson & Johnson Pharmaceutical R&D, LLC; Haiyan Xu, Johnson & Johnson Pharmaceutical R&D, LLC; Jingyi Liu, University of California, Davis; Pilar Lim, Johnson & Johnson Pharmaceutical R&D, LLC

43 **Parameterization of CRM Model—**✱Jianfen Shu, University of Virginia

44 **Design Strategies for a Proof-of-Concept Study with Futility Analysis and Go/No-Go Criteria—**✱Yong-Cheng Wang, Biogen Idec, Inc.

45 **A Response Adaptive Design with Pharmacogenomic Biomarkers for Targeted Therapies—**✱Jens C. Eickhoff, University of Wisconsin-Madison; KyungMann Kim, University of Wisconsin-Madison; Jill M. Kolesar, University of Wisconsin-Madison; Glenn Liu, University of Wisconsin-Madison; Wei Huang, University of Wisconsin-Madison; Jason R. Gee, William S. Middleton Memorial Veterans Hospital

46 **A Dose-Finding Design for Combination Therapy That Accounts for Both Efficacy and Safety—**✱Ping Yao, University of Missouri-Columbia; Nancy Flournoy, University of Missouri-Columbia; Valerii V. Fedorov, GlaxoSmithKline

47 **A Generalized Correlation Coefficient for the General Two-Treatment Crossover Design—**✱Yi-Ju Chen, National Chung Cheng University; Vernon Chinchilli, Pennsylvania State College of Medicine

48 **Sample Size and Power Calculations for Comparing Two Means in Zero-Inflated Discrete Distribution with Application to MRI-Based Clinical Trials—**✱Sungyoung Auh, National Institute of Neurological Disorders and Stroke; Jonghyeon Kim, The EMMES Corporation; Francesca Bagnato, National Institute of Neurological Disorders and Stroke

49 **Inference for Comparing Two Treatments Using Receiver Operating Characteristic Curve—**✱Sibabrata Banerjee, Schering-Plough Research Institute; Sunil Dhar, New Jersey Institute of Technology; Farid Kianifard, Novartis Pharmaceuticals

50 **A Simulation Comparison of Asymptotic Tests for 2x2 Tables of Outcome-Based Adaptive Randomization—**✱Xuemin Gu, The University of Texas M.D. Anderson Cancer Center; J. Jack Lee, The University of Texas M.D. Anderson Cancer Center

51 **Comparing the Statistical Performance of Continuous Sequential Monitoring to Group Sequential Methods for Evaluating Post-Marketing Drug Safety: A Simulation Study—**✱Shanshan Zhao, University of Washington; Andrea J. Cook, Group Health Center for Health Studies; Jennifer Nelson, Group Health Center for Health Studies

Economics, game theory

52 **Primary Economic Issues That Affect GDP—**Les Yen, University of Phoenix/NVA; ✱Rene Wells, University of Phoenix; Eric Cramer, University of Phoenix; Angie Kruse, University of Phoenix

53 **Effects of Alcohol and Drug Use on Human Capital: A Review—**Richard Bryant, Missouri University of Science and Technology; ✱V. A. Samaranayake, Missouri University of Science and Technology

Pharmacokinetics and pharmacodynamics

54 **A Comparison of Methods To Determine Bioequivalence of Topical Dermatological Drug Products—**✱Ashlyn Hutchinson, Colorado School of Mines; William Navidi, Colorado School of Mines; Annette Bunge, Colorado School of Mines; Berthe N'Dri-Stempfer, Colorado School of Mines

55 **An Estimation Method and the Appropriate Sampling Point of the Half-Life for a One-Compartment Model of a Single Bolus Intravenous Injection by a Single Sampling—**✱Takashi Funatogawa, Chugai Pharmaceutical Co. LTD.; Ikuko Funatogawa, Teikyo University School of Medicine; Akifumi Yafune, Clinic Sendagaya

Time series/wavelet analysis

56 **One Connection of State Space Model and Penalized Spline—**✱Bin Zhu, The University of Michigan; Jeremy M.G. Taylor, The University of Michigan; Peter Song, The University of Michigan

57 **Observation-Driven State-Space Model for Categorical Time Series—**✱Xiaoa Zhen, The University of Georgia; Ishwar Basawa, The University of Georiga

58 **Clustering Time Series Using Wavelet—**✱You Jin Kim, Seoul National University; Bo Ram Kim, Seoul National University; Jung Hyun Lee, Seoul National University; Sinsup Cho, Seoul National University

59 **Linex-Unbiased Filtering of Time Series—**Khalil Shafie, University of Northen Colorado; ✱Saad Alkahtani, University of Northern Colorado

60 **Time Series Models with Asymmetric Laplace Innovations—**✱Alexandre Trindade, Texas Tech University; Yun Zhu, CitiGroup

61 **Time Series Analysis of the Fatal Accident Reporting System—**✱Brian Close, University at Albany; Igor G. Zurbenko, University at Albany

62 **Negative Seasonality and the Reduction of Dips in the Spectrum of a Seasonally Adjusted Time Series—**✱Tucker S. McElroy, U.S. Census Bureau

Speaker with Lunch
12:30 p.m.–1:50 p.m.

280 **HY-Capitol Ballroom 6**

Business and Economics Statistics Section Speaker with Lunch (fee event)—Speaker with Lunch

Business and Economics Statistics Section

Organizer(s): Sastry Pantula, North Carolina State University

TL08 **Epidemics in a Globalized World: Economic and Financial Lessons from HIV/AIDS—**✱Tapen Sinha, Instituto Technológico Autónomo De México

Roundtables with Lunch 12:30 p.m.–1:50 p.m.

281 HY-Capitol Ballroom 4
Section on Bayesian Statistical Science Roundtables with Lunch (fee event)

Section on Bayesian Statistical Science

Organizer(s): Michael Daniels, University of Florida

TL09 **Salary, Sponsorship, and Strategy: A Case for Statistics in Sports—✱**C. Shane Reese, Brigham Young University

TL10 **Bayesian Adaptive Trials—✱**Scott M. Berry, Berry Consultants

282 HY-Capitol Ballroom 4
Biopharmaceutical Section Roundtables with Lunch (fee event)

Biopharmaceutical Section

Organizer(s): Matilde Sanchez, Arena Pharmaceuticals

TL11 **Statistical Analysis and Practical Issues of Missing Data in Clinical Pharmacology (Phase I) Crossover Studies—✱**Fang Liu, Merck Research Laboratories; Pat Larson, Merck Research Laboratories

TL12 **Statistical Challenges and Opportunities in Oncology Clinical Trials—✱**Yi He, sanofi-aventis; Zhenming Shun, sanofi-aventis; Martin Roessner, sanofi-aventis

TL13 **Statistical Issues in Thorough QT Studies—✱**Jennifer E. Hamer-Maansson, AstraZeneca Pharmaceuticals

TL14 **Successful Partnership Between CRO and Sponsor Statisticians—✱**Nfii Ndikintum, Paragon Biomedical, Inc.

TL15 **Stratified Trials with Binary Endpoints: Saving $$$ with More Efficient Analyses—✱**Devan V. Mehrotra, Merck Research Laboratories

TL16 **Use of Biomarkers and Models in Exploratory Clinical Development—✱**Alan Y. Chiang, Eli Lilly and Company

283 HY-Capitol Ballroom 4
Section on Health Policy Statistics Roundtable with Lunch (fee event)

Section on Health Policy Statistics

Organizer(s): Mary Beth Landrum, Harvard Medical School

TL17 **Multiple Imputation Software for Modeling and Analysis: Reconciling the Ideal and Practical—✱**Madhumita (Bonnie) Ghosh-Dastidar, RAND Corporation

284 HY-Capitol Ballroom 4
Section on Quality and Productivity Roundtables with Lunch (fee event)

Section on Quality and Productivity

Organizer(s): Donald W. McCormack, Jr., Amgen, Inc.

TL18 **The Many Forms of Reliability Data—✱**David C. Trindade, Sun Microsystems, Inc.

TL19 **Optimal Design of Split-Split-Plot and Strip-Plot Experiments—✱**Bradley Jones, SAS Institute Inc.

285 HY-Capitol Ballroom 4
Section on Statistical Consulting Roundtable with Lunch (fee event)

Section on Statistical Consulting

Organizer(s): Stephan Ogenstad, Statogen Consulting LLC

TL20 **Teaching Using Real Consulting—✱**Tim Hesterberg, Google, Inc.

286 HY-Capitol Ballroom 5
Section on Statistical Education Roundtables with Lunch (fee event)

Section on Statistical Education

Organizer(s): Peter Westfall, Texas Tech University

TL21 **Teaching Confounding and Multivariate Thinking in Introductory Statistics—✱**Milo Schield, W.M. Keck Statistical Literacy Project

TL22 **How Is Your Biometry Course Going?—✱**Dexter C. Whittinghill, Rowan University

TL23 **Myths and Fallacies in Elementary Statistics—✱**Bernard Harris, University of Wisconsin-Madison

287 HY-Capitol Ballroom 4
Section on Statistical Graphics Roundtable with Lunch (fee event)

Section on Statistical Graphics, Section on Nonparametric Statistics

Organizer(s): Steven N. MacEachern, The Ohio State University

TL24 **Exploratory Data Analysis (EDA): Graphical Methods, Software, Applications, and Recent Developments—✱**Juergen Symanzik, Utah State University

288 HY-Capitol Ballroom 5

Section on Statistics in Epidemiology Roundtables with Lunch (fee event)

Section on Statistics in Epidemiology

Organizer(s): Amy H. Herring, The University of North Carolina at Chapel Hill

TL25 **Statistical Methods in Breast Cancer Research—**✱Philip S. Rosenberg, National Cancer Institute

TL26 **Nonparametric Methods in Genetic Epidemiology: Multilocus Genetic Predisposition, Environmental Risk Interaction, and Complex Phenotypes—**✱Knut M. Wittkowski, The Rockefeller University

289 HY-Capitol Ballroom 4

Section on Survey Research Methods Roundtable with Lunch (fee event)

Section on Survey Research Methods

Organizer(s): Elaine Zanutto, National Analysts Worldwide Research and Consulting

TL27 **Methods and Issues in Trimming Extreme Weights in Sample Surveys—**✱Frank Potter, Mathematica Policy Research, Inc.

Invited Sessions 2:00 p.m.–3:50 p.m.

290 CC-703

Technometrics Invited Session—Invited

Technometrics, Section on Physical and Engineering Sciences

Organizer(s): David M. Steinberg, Tel Aviv University

Chair(s): David M. Steinberg, Tel Aviv University

2:05 p.m. ***Technometrics* Vol. 1, No. 1, 1959—**✱J. Stuart Hunter, Princeton University

2:30 p.m. **Quality Assessment for Short Oligonucleotide Microarray Data—**Julia Brettschneider, University of Warwick; ✱Terence P. Speed, University of California, Berkeley; Francois Collin, University of California, Berkeley; Benjamin Bolstad, University of California, Berkeley

3:10 p.m. Disc: Darlene Goldstein, Ecole Polytechnique Federale De Lausanne

3:20 p.m. Disc: Lakshmi Muthuswamy, Cold Spring Harbor Laboratory

3:30 p.m. Disc: Wendell D. Jones, Expression Analysis Inc.

3:40 p.m. **Floor Discussion**

291 CC-603

● Causal Inference in Vaccine Studies—Invited

Section on Statistics in Epidemiology, Biopharmaceutical Section, WNAR, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Dylan Small, University of Pennsylvania

Chair(s): Dylan Small, University of Pennsylvania

2:05 p.m. **Causal Inference in the Anthrax Vaccine Trials—**✱Donald B. Rubin, Harvard University

2:30 p.m. **Toward Causal Inference with Interference—**✱Michael Hudgens, The University of North Carolina at Chapel Hill; M. Elizabeth Halloran, University of Washington

2:55 p.m. **Vaccine Efficacy Among the Doomed When Monotonicity Is Unreasonable—**✱Bryan E. Shepherd, Vanderbilt University

3:20 p.m. Disc: M. Elizabeth Halloran, University of Washington

3:40 p.m. **Floor Discussion**

292 CC-708

● Nonignorable Missingness and Incomplete Auxiliary Data—Invited

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): Michael Sverchkov, BAE Systems/Bureau of Labor Statistics

Chair(s): J. N. K. Rao, Carleton University

2:05 p.m. **Hierarchical Bayes Estimation for Bivariate Binary Data with Applications to Small-Area Estimation—**✱Malay Ghosh, University of Florida

2:30 p.m. **Can Calibration Be Used To Adjust for 'Nonignorable' Nonresponse?—**✱Phillip S. Kott, National Agricultural Statistics Service; Ted Chang, University of Virginia

2:55 p.m. **NMAR Nonresponse with Limited Covariate Information—**✱Danny Pfeffermann, Hebrew University & University of Southampon; Anna Sikov, The Hebrew University of Jerusalem; Michael Sverchkov, BAE Systems/ Bureau of Labor Statistics

3:20 p.m. Disc: John L. Eltinge, Bureau of Labor Statistics

3:40 p.m. **Floor Discussion**

293 CC-102

● ▲ Communicating Technical Material with Nonstatisticians—Invited

Section on Quality and Productivity, Section on Physical and Engineering Sciences, Section on Statistical Consulting

Organizer(s): James D. Williams, GE Global Research

Chair(s): James D. Williams, GE Global Research

2:05 p.m. **Extreme Makeover: Data Edition - Tables—✱**Julia C. O'Neill, Merck & Co., Inc.

2:30 p.m. **Perspectives on Communicating with Nonstatisticians—✱**Martha Gardner, General Electric Global Research

2:55 p.m. **Extreme Makeover: Data Edition - Graphics—✱**Lori Pfahler, Merck & Co., Inc.

3:20 p.m. Disc: Mark Bailey, SAS Institute Inc.

3:40 p.m. **Floor Discussion**

294 CC-103

● ▲ Modeling Long-Range Dependence and Stochastic Volatily: From Theory to Applications in Business and Economics—Invited

Business and Economics Statistics Section

Organizer(s): Yulia R. Gel, University of Waterloo

Chair(s): Yulia R. Gel, University of Waterloo

2:05 p.m. **An Empirical Comparison of Some Parameter Estimation Methods in Stochastic Volatility Models—✱**Bovas Abraham, University of Waterloo; Ji Eun Choi, University of Waterloo

2:30 p.m. **A Bayesian Approach to Estimating the Long Memory Parameter—✱**Scott Holan, University of Missouri-Columbia; Tucker S. McElroy, U.S. Census Bureau; Sounak Chakraborty, University of Missouri-Columbia

2:55 p.m. **Inference for Long Memory Time Series with Application to Weather Derivatives Pricing—✱**Nalini Ravishanker, University of Connecticut; Jeffrey Pai, University of Manitiba

3:20 p.m. **Independent Component Analysis for Financial Time Series—✱**Daniel Peña, Universidad Carlos III de Madrid

3:45 p.m. **Floor Discussion**

295 CC-605

● ▲ Analysis of Medical Cost Data: Collaboration Between Health Economists and Statisticians—Invited

Section on Health Policy Statistics, WNAR

Organizer(s): Lei Liu, University of Virginia

Chair(s): Tina Shih, The University of Texas M.D. Anderson Cancer Center

2:05 p.m. **Joint Modeling Longitudinal Semi-Continuous Data and Survival, with Application to Longitudinal Medical Cost Data—✱**Lei Liu, University of Virginia

2:30 p.m. **The Anatomy of Health Care Cost Distributions—✱**John Mullahy, University of Wisconsin-Madison

2:55 p.m. **Estimating Health Care Treatment Costs with Censoring and End-of-Life—✱**Willard G. Manning, The University of Chicago; Anirban Basu, The University of Chicago

3:20 p.m. **A New Semiparametric Model for Correlated Semicontinuous Data—✱**Andrew Zhou, University of Washington; Hua Z. Lin, Sichuan University

3:45 p.m. **Floor Discussion**

296 CC-705

Large Random Matrices, High-Dimensional Inference, and Future SAMSI Programs—Invited

Statistical and Applied Mathematical Sciences Institute, Section on Nonparametric Statistics, IMS

Organizer(s): James Berger, Duke University/SAMSI

Chair(s): James Berger, Duke University/SAMSI

2:05 p.m. **Covariance Estimation in High-Dimensional Graphical Models—✱**Bala Rajaratnam, Stanford University

2:30 p.m. **Permutation-Invariant Regularization of Large Covariance Matrices—✱**Elizaveta Levina, The University of Michigan

3:20 p.m. **Floor Discussion**

297 CC-107

● Methodological Advances in Astronomy and Astrophysics—Invited

Section on Bayesian Statistical Science

Organizer(s): David A. van Dyk, University of California, Irvine
Chair(s): Yaming Yu, University of California, Irvine

2:05 p.m. **Empirical Comparisons of Computer Models for Stellar Evolution—✱**David A. van Dyk, University of California, Irvine; Steven DeGennar, The University of Texas at Austin; Ted von Hippel, The University of Texas at Austin; William Jeffery, University of Vermont; Nathan Stein, The University of Texas at Austin; Elizabeth Jeffery, The University of Texas at Austin

2:35 p.m. **Multilevel Bayesian Modeling for Astronomical Surveys—✱**Thomas Loredo, Cornell University

3:05 p.m. **Streaming Motion in Dwarf Spheroidal Galaxies—✱**Michael Woodroofe, The University of Michigan

3:35 p.m. **Floor Discussion**

298 CC-704

● Clustering and Sample-Size Issues for Rank Tests—Invited

ENAR, Section on Nonparametric Statistics, SSC, WNAR, IMS, Biometrics Section

Organizer(s): Bernard Rosner, Channing Laboratory
Chair(s): Mei-Ling T. Lee, The Ohio State University

2:05 p.m. **Two Sample Tests for the Nonparametric Behrens-Fisher Problem with Clustered Data—✱**Denis Larocque, HEC Montreal; Riina Haataja, Tampere School of Public Health; Jaakko Nevalainen, Tampere School of Public Health; Hannu Oja, Tampere School of Public Health

2:30 p.m. **A Signed-Rank Test for Clustered Data—✱**Somnath Datta, University of Louisville; Glenn Satten, Centers for Disease Control and Prevention

2:55 p.m. **Power and Sample Size Estimation for the Wilcoxon Rank Sum and Signed Rank Test—✱**Bernard Rosner, Channing Laboratory; Robert Glynn, Brigham & Women's Hospital

3:20 p.m. Disc: Robert Glynn, Brigham & Women's Hospital

3:40 p.m. **Floor Discussion**

Invited Panel 2:00 p.m.–3:50 p.m.

299 CC-111

● ▲ The Measure of Mollie Orshansky—Invited

Memorial, Section on Government Statistics, Section on Survey Research Methods, Social Statistics Section, Scientific and Public Affairs Advisory Committee, Committee on ASA Archives and Historical Materials

Organizer(s): Juanita Tamayo Lott, U.S. Census Bureau
Chair(s): Fritz Scheuren, The University of Chicago

Panelists: ✱Connie Citro, Committee on National Statistics

✱Gordon Fisher, U.S. Department of Health and Human Services

✱John Iceland, University of Maryland, College Park

✱Juanita Tamayo Lott, U.S. Census Bureau

3:45 p.m. **Floor Discussion**

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

300 CC-706

▲ Approaches to Protecting Privacy and Confidentiality in Data—Topic-Contributed

Section on Government Statistics, Section on Survey Research Methods

Organizer(s): Julia Lane, National Science Foundation
Chair(s): Julia Lane, National Science Foundation

2:05 p.m. **Providing Access to Business Microdata: The International Experience—✱**Stefan Bender, Institute for Employment Research

2:25 p.m. **Defining Business Data Needs—✱**Nicholas Greenia, Internal Revenue Service

2:45 p.m. **Providing Remote Access to Business Micro Data: Lessons Learned—✱**Timothy M. Mulcahy, National Opinion Research Center; Pascal Heus, Open Data Foundation; Chet Bowie, National Opinion Research Center

3:05 p.m. **Microdata Access—✱**Felix Ritchie, The Office for National Statistics, UK

3:25 p.m. Disc: Chet Bowie, National Opinion Research Center

3:45 p.m. **Floor Discussion**

301 CC-604

● ▲ Intelligent Brain Statistics—Topic-Contributed

Biometrics Section

Organizer(s): Daniel B. Rowe, Medical College of Wisconsin
Chair(s): Daniel B. Rowe, Medical College of Wisconsin

2:05 p.m. **A Genetic Algorithm To Choose Data Preprocessing and Kernel Ridge Regression Parameters for Optimal Prediction with fMRI—✱**Rajan Patel, Google, Inc.

2:25 p.m. **Discrimination of Multichannel Brain Signals: The Slex-Shrinkage Method—✱**Hernando Ombao, Brown University

2:45 p.m. **Statistical Inference for Minimum BD Estimators and Classifiers with Diverging Number of Parameters—✱**Chunming Zhang, University of Wisconsin-Madison

3:05 p.m. **Unified Framework for Modeling Binary Objects and Its Application to Amygdala Shape Analysis—✱**Moo K. Chung, University of Wisconsin-Madison

3:25 p.m. **Logistic Regression with fMRI Time Series Predictors—✱**Martin Lindquist, Columbia University; Ian W. McKeague, Columbia University

3:45 p.m. **Floor Discussion**

302 CC-702

● ▲ Presentation and Interpretation of Safety Data in Clinical Trials—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, Committee on Applied Statisticians

Organizer(s): Mani Lakshminarayanan, Merck & Co., Inc.
Chair(s): Amarjot Kaur, Merck & Co., Inc.

2:05 p.m. **Interactive and Exploratory Safety Data Analysis and Review—✱**Michael O'Connell, Insightful Corporation

2:25 p.m. **Detecting Potential Safety Issues in Clinical Trials by Bayesian Screening—✱**A. Lawrence Gould, Merck Research Laboratories

2:45 p.m. **Analysis and Summarization of Longitudinal Clinical Lab Data Toward Detection of Hepatoxicity—✱**Jonathan Schildcrout, Vanderbilt University

3:05 p.m. **Exploring the Individual—✱**Matthew Austin, Amgen, Inc.

3:25 p.m. Disc: Marie-Pierre Malice, Merck & Co., Inc.

3:45 p.m. **Floor Discussion**

303 CC-104

● ▲ Theil-Sen Estimates in Modern Regression—Topic-Contributed

Section on Nonparametric Statistics

Organizer(s): Hanxiang Peng, University of Mississippi
Chair(s): Xin Dang, University of Mississippi

2:05 p.m. **Review of the Theil-Sen Estimator Plus Results on Estimating Explanatory Power—✱**Rand Wilcox, University of Southern California

2:25 p.m. **Asymptotics of the Theil-Sen Estimator—✱**Xueqin Wang, Sun Yat-Sen University

2:45 p.m. **The Multivariate Spatial U-Quantile and Its Application in Theil-Sen Estimator—✱**Weihua Zhou, The University of North Carolina, Charlotte

3:05 p.m. **The Theil-Sen Estimators in Semiparametric Mixed Models—**Xin Dang, University of Mississippi; Xueqin Wang, Zhongshan University; ✱Hanxiang Peng, University of Mississippi

3:25 p.m. **Floor Discussion**

304 CC-110

Statistical Computing with Massive Data—Topic-Contributed

Section on Statistical Computing, Section on Statisticians in Defense and National Security, Section on Physical and Engineering Sciences

Organizer(s): John W. Emerson, Yale University
Chair(s): Martin Schultz, Yale University

2:05 p.m. **BigmemoRy: Massive Data, Shared Memory, and Parallel Computing in R—✱**John W. Emerson, Yale University; Michael Kane, Yale University

2:25 p.m. **High-Performance Processing of Large Data Sets via Memory Mapping: A Case Study in R And C++—✱**Daniel Adler, Georg-August University of Göttingen; Jens Oehlschlägel, Research Consultant; Oleg Nenadic, Georg-August University of Göttingen; Walter Zuccini, Georg-August University of Göttingen

2:45 p.m. **Analysis of Huge Data Sets in S-Plus—✱**Stephen Kaluzny, Insightful Corporation; Michael Sannella, Insightful Corporation

3:05 p.m. **BigmemoRy: Handling Massive Data in R—✱**Michael Kane, Yale University; John W. Emerson, Yale University

3:25 p.m. Disc: Antony Unwin, Augsburg University

3:45 p.m. **Floor Discussion**

305 CC-709

● Innovations in Spatio-Temporal Cluster Detection for Infectious Disease Surveillance—Topic-Contributed

Section on Statisticians in Defense and National Security, Section on Nonparametric Statistics, Section on Statistics and the Environment

Organizer(s): Howard S. Burkom, Johns Hopkins University
Chair(s): Howard S. Burkom, Johns Hopkins University

2:05 p.m. **Prospective Clustering Analysis of Spatial-Temporal Data—✱**Daniel Zeng, The University of Arizona

2:25 p.m. **A Nonparametric Scan Statistic for Multivariate Spatial Biosurveillance—✱**Daniel B. Neill, Carnegie Mellon University; Jeff Lingwall, Carnegie Mellon University

2:45 p.m. **Discrimination and Thresholding in Evaluation of Disease Cluster Detection Algorithms—✱**Linda Moniz, Johns Hopkins University; Howard S. Burkom, Johns Hopkins University; Jian Xing, Centers for Disease Control and Prevention

3:05 p.m. **Using the Repeated Two-Sample Rank Procedure for Detecting Anomalies in Space and Time—✱**Ronald D. Fricker, Jr., Naval Postgraduate School

3:25 p.m. **EWMA Smoothing and Bayesian Spatial Modeling for Health Surveillance—✱**Huafeng Zhou, Merck & Co., Inc.; Andrew B. Lawson, University of South Carolina

3:45 p.m. **Floor Discussion**

306 CC-113

● Analytical Customer Relationship Management—Topic-Contributed

Section on Statistics and Marketing

Organizer(s): Dirk Van den Poel, Ghent University
Chair(s): Dirk Van den Poel, Ghent University

2:05 p.m. **Random Forests for Internet Recommendations—**Michiel van Wezel, Erasmus University; Erik Miedema, Erasmus University; ✱Rob Potharst, Erasmus University

2:25 p.m. **Modeling Customer Purchases and Lifetime Value in a Noncontractual Setting with Markov Models—✱**Edward C. Malthouse, Northwestern University; Shyam Gopinath, Northwestern University; Robert Blattberg, Northwestern University

2:45 p.m. **Random Forests for Multiclass Classification: Random Multinomial Logit Applied to an ACRM Problem—✱**Anita Prinzie, The University of Manchester; Dirk Van den Poel, Ghent University

3:05 p.m. **Risk Management in Customer Relationship Management of Bank—✱**Katsutoshi Yada, Kansai University; Takashi Washio, Osaka University; Hisao Nagaoka, Kansai University; Yasuharu Ukai, Kansai University

3:25 p.m. **Data Mining in Hospital Management—✱**Shusaku Tsumoto, Shimane University; Shoji Hirano, Shimane University; Hidenao Abe, Shimane University

3:45 p.m. **Floor Discussion**

307 CC-712

Studies of Weather and Climate—Topic-Contributed

Section on Statistics and the Environment

Organizer(s): Stephan Sain, National Center for Atmospheric Research
Chair(s): Philip Dixon, Iowa State University

2:05 p.m. **A Bayesian Reconstruction of Holocene Temperature Variation in Northern Fennoscandia—✱**Lasse Holmström, University of Oulu; Panu Erasto, National Public Health Institute; Jan Weckstrom, University of Helsinki; Marjut Nyman, University of Helsinki; Atte Korhola, University of Helsinki

2:25 p.m. **Latin Hypercube Sampling To Select Model Parameters for Ensemble Weather Prediction—✱**Matthew Pocernich, National Center for Atmospheric Research; Joshua Hacker, National Center for Atmospheric Research

2:45 p.m. **Estimating the Global Distribution of Severe Thunderstorms and Tornadoes—✱**Harold E. Brooks, Hurricane Research Division

3:05 p.m. **Spatial Hierarchical Modeling of Weather Extremes from a Regional Climate Model—✱**Dan Cooley, Colorado State University; Stephan Sain, National Center for Atmospheric Research

3:25 p.m. **K-Nearest Neighbor as Tool for Downscaling Information from Climate Models—**Matthew Pocernich, National Center for Atmospheric Research; ✱David Yates, National Center for Atmospheric Research

3:45 p.m. **Floor Discussion**

308 CC-707

● Student Paper Competition: Bayesian Methods in Inverse Problems, Imaging, and Engineering—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): David A. van Dyk, University of California, Irvine
Chair(s): Ming-Hui Chen, University of Connecticut

2:05 p.m. **Detecting Unexpected Residual Spectral Structure in X-Ray Astronomy—✱**Jason Kramer, University of California, Irvine; David A. van Dyk, University of California, Irvine

2:25 p.m. **Regularized Posteriors in Linear Ill-Posed Inverse Problems—✱**Anna Simoni, Toulouse School of Economics (GREMAQ); Jean-Pierre Florens, Toulouse School of Economics (GREMAQ - IDEI)

2:45 p.m. **A Bayesian Image Analysis of Change in Tumor/Brain Contrast Uptake Induced by Radiation—✱**Xiaoxi Zhang, Pfizer, Inc.; Timothy D. Johnson, The University of Michigan; Roderick J. Little, The University of Michigan; Yue Cao, The University of Michigan

3:05 p.m. **Analyzing Space-Time Sensor Network Data Under Suppression and Failure in Transmission—✱**Gavino Puggioni, Duke University; Alan Gelfand, Duke University

3:25 p.m. **Floor Discussion**

Topic-Contributed Panel 2:00 p.m.–3:50 p.m.

309 CC-109

NSF Programs Supporting Statistics Education and Strategies for Becoming a Successful Investigator—Topic-Contributed

Section on Statistical Education, Social Statistics Section

Organizer(s): Ginger Holmes Rowell, National Science Foundation
Chair(s): Andre Lubecke, Lander University

Panelists: ✱Ginger Holmes Rowell, National Science Foundation

✱Dennis K. Pearl, The Ohio State University

✱Joan Garfield, The University of Minnesota

3:35 p.m. **Floor Discussion**

Contributed Sessions 2:00 p.m.–3:50 p.m.

310 CC-101

Time Series Topics—Contributed

Business and Economics Statistics Section

Chair(s): Gary Simon, New York University

2:05 p.m. **Bartlett-Type Corrections for Score Test Statistics on Gaussian ARMA Models—✱**Bernardo M. Lagos, University of Concepción; Pedro A. Morettin, Institute of Marine Science, University of São Paulo

2:20 p.m. **Models for Continuous Dynamical Processes with Bounded Support—✱**Amanda R. Cangelosi, Utah State University; Mevin B. Hooten, Utah State University

2:35 p.m. **A Multiscale Variance Stabilization for Binomial Sequence Proportion Estimation—✱**Matthew A. Nunes, University of Bristol

2:50 p.m. **The ARIMA (0,1,2)(0,1,1) 32 Model and Confidence Intervals—✱**Sujata Mukhopadhyay, NIL

3:05 p.m. **Simple Tests for Short Memory in ARFIRMA Models—✱**Timothy Hughes, Boise State University

3:20 p.m. **Test of Normality of a Long-Memory Sequence Using the Empirical Moment Generating Function—✱**Sucharita Ghosh, Swiss Federal Research Insitute WSL

3:35 p.m. **Floor Discussion**

311 CC-701

● ▲ Statistical Methods for Biomedical Research—Contributed

WNAR, Section on Statistical Graphics, Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Kefei Zhou, Amgen, Inc.

2:05 p.m. **Weighted Area Under the Receiver Operating Characteristic Curve and Its Application to Gene Selection—✱**Jialiang Li, National University of Singapore; Jason P. Fine, University of Wisconsin-Madison

2:20 p.m. **A Bayesian Method for Cross-Trial Inference in the Noninferiority Setting—✱**Siobhan Everson-Stewart, University of Washington; Scott S. Emerson, University of Washington

2:35 p.m. **A Varying Coefficient Method for Analyzing Longitudinal Data with Nonignorable Dropout—✱**Jeri E.F. Harwood, University of Colorado Denver; Samantha MaWhinney, Health Sciences Center University of Colorado Denver; Diane Fairclough, University of Colorado Denver

2:50 p.m. **Estimates of Information Growth Accommodating Model Misspecification—✱**Abigail Shoben, University of Washington; Kyle Rudser, University of Washington; Scott S. Emerson, University of Washington

3:05 p.m. **Dynamic Transitional Modeling Through Bayesian Variable Selection in Disease State Prediction—✱**David Engler, Brigham Young University; Brian Healy, MGH Biostatistics Center

3:20 p.m. **Using Nonlinear Mixed Models To Analyze Characteristics of Discounting Behavior—✱**Susan K. Mikulich-Gilbertson, University of Colorado Denver; Thomas J. Crowley, University of Colorado Denver; Laetitia Thompson, University of Colorado Denver

3:35 p.m. **Exploratory Graphics for Functional Actigraphy Data—✱**Juergen Symanzik, Utah State University; William Shannon, Washington University School of Medicine

312 CC-711

● Bayesian Methods for the Social Sciences—Contributed

Social Statistics Section, Section on Bayesian Statistical Science, Section on Government Statistics

Chair(s): Qixuan Chen, The University of Michigan

2:05 p.m. **Hierarchical Nonlinear Profile Analysis of Dichotomous Item Responses—✱**Steven A. Culpepper, Metropolitan State College of Denver

2:20 p.m. **Determining the Number of Classes in Growth Mixture Modeling: Covariate, Data Generation Scheme, and Class Specificity—✱**Libo Li, University of California, Los Angeles; Yih-ing Hser, University of California, Los Angeles

2:25 p.m. **Applying Bayesian Networks to the Examination of Student Retention and Graduation—✱**Xiaohong Li, Sam Houston State University; Melinda M. Holt, Sam Houston State University

2:50 p.m. **Predicting Electoral Vote Totals for the Presidential Election—✱**Christopher J. Rigdon, Arizona State University; Steven Rigdon, Southern Illinois University Edwardsville; Edward Sewell, Southern Illinois University Edwardsville; Sheldon Jacobsen, University of Illinois at Urbana-Champaign

3:05 p.m. **Election Prediction Using the Kalman Filter—✱**Steven Rigdon, Southern Illinois University Edwardsville; Michael Siekerka, Southern Illinois University Edwardsville; Christopher J. Rigdon, Arizona State University

3:20 p.m. **Spatial Empirical Bayes: Borrowing Strength Through Spatial Dependence—✱**Natalya Verbitsky, Mathematica Policy Research, Inc.; Stephen W. Raudenbush, The University of Chicago

3:35 p.m. **Rating Crop Insurance Contracts with Skewed Distributions: A Bayesian Approach—✱**Vitor Ozaki, University of S„o Paulo; Ralph Silva, Campinas State University

313 CC-607

● Improving Survey Quality: Mode Effects, Coverage, and Forms—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): John Rogers, Westat, Inc.

2:05 p.m. **Examining Mode Differences in the Health Information National Trends Survey—✱**Jeffrey Kerwin, Westat, Inc.; David Cantor, Westat, Inc.

2:20 p.m. **An Analysis of Mode Effects in Three Mixed-Mode Surveys of Veteran and Military Populations—✱**Boris Rachev, ICF International; Michael Yang, ICF International; Diana Davis, ICF International; Ronald Szoc, ICF International

2:35 p.m. **Using Multiple Data Sources To Identify Types and Sources of Coverage Errors on an American Indian Reservation—✱**Laurie Schwede, U.S. Census Bureau

2:50 p.m. **Using Administrative Records To Improve Within-Household Coverage in the 2008 Census Dress Rehearsal—✱**Timothy L. Kennel, U.S. Census Bureau; Dean Resnick, U.S. Census Bureau

3:05 p.m. **2007 Census Bilingual Forms Design Test—✱**Kelly Govern, U.S. Census Bureau

3:20 p.m. **Impact of New Income Questions on Reported Income in the National Survey on Drug Use and Health (NSDUH)—✱**Jeremy Aldworth, RTI International; Dicy Painter, Substance Abuse and Mental Health Services Administration; Tania Robbins, RTI International; David Heller, RTI International

3:35 p.m. **Calendarization of the Goods and Services Tax Data: Issues and Solutions—✱**Martin Beaulieu, Statistics Canada; Benoit Quenneville, Statistics Canada

314 CC-710

● Inference from Longitudinal Surveys and Double Sampling—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): Wendy Rotz, Ernst & Young LLP

2:05 p.m. **Efficiency Comparison for Constrained Generalized Least Squares Estimators in a Panel Survey—✱**Jason C. Legg, Iowa State University; Cindy Yu, Iowa State University

2:20 p.m. **Matching Surveys in Longitudinal Studies—✱**Cynthia B. Augustine, RTI International; Kristine L. Rae Olmsted, RTI International; Scott Ginder, RTI International

2:35 p.m. **Exploration of the Use of Empirical Bayes Procedures for Estimating Changes in Occupancy Rate and Persons per Household—✱**Lynn Weidman, U.S. Census Bureau; Don Malec, U.S. Census Bureau

2:50 p.m. **Using the SIMEX Method To Estimate Temporal Change for a High-Scoring Group—✱**Andrea R. Piesse, Westat, Inc.; Randy Sitter, Simon Fraser University; X. C. Feng, Simon Fraser University

3:05 p.m. **Efficient Calibration for Variants of Double Sampling—✱**Takis Merkouris, Athens University of Economics and Business

3:20 p.m. **Analysis of an Outcome-Dependent Enriched Sample Using Semiparametric Likelihood Method—✱**Qing Kang, North Dakota State University; Christopher I. Vahl, North Dakota State University

3:35 p.m. **New Regression-Type Estimators in Multiphase Sampling—✱**Mariyam Hafeez, University of the Punjab; Muhammad Q. Shahbaz, COMSATS Institute of Information Technology

315 CC-602

● Infectious Disease Epidemiology—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Elizabeth R. Zell, Centers for Disease Control and Prevention

2:05 p.m. **Estimation of the Basic Reproduction Number for Infectious Diseases—✱**Shenghai Zhang, Public Health Agency of Canada; Ping Yan, Public Health Agency of Canada

2:20 p.m. **Confidence Intervals for Estimates of Excess Mortality—✱**Al Ozonoff, Boston University School of Public Health; Xiaopeng Miao, Boston University School of Public Health; Po-Yung Cheng, Centers for Disease Control and Prevention; William W. Thompson, Centers for Disease Control and Prevention

2:35 p.m. **Comparison of Methods for Estimating Influenza-Associated Deaths from the 1972/1973 Through 2003/2004 Seasons—✱**Hong Zhou, Centers for Disease Control and Prevention; William W. Thompson, Centers for Disease Control and Prevention; Po-Yung Cheng, Centers for Disease Control and Prevention; Eric Weintraub, Centers for Disease Control and Prevention; Cecile Viboud, National Institutes of Health; Corinne Ringholz, National Institutes of Health; Joe Bresee, Centers for Disease Control and Prevention; David Shay, Centers for Disease Control and Prevention

2:50 p.m. **Comparison of Seasonal Regression Models for Estimating Influenza-Associated Mortality in the US: A Simulation Study—✱**Po-Yung Cheng, Centers for Disease Control and Prevention; William W. Thompson, Centers for Disease Control and Prevention; Cecile Viboud, National Institutes of Health; Corinne Ringholz, National Institutes of Health; Tuyen Do, Centers for Disease Control and Prevention; David K. Dhay, Centers for Disease Control and Prevention

3:05 p.m. **A Bayesian Method for Inferring Transmission Chains in a Partially Observed Epidemic—✱**Jaideep Ray, Sandia National Laboratories; Youssef M. Marzouk, Sandia National Laboratories

3:20 p.m. **A Discrete-Time Sequential Test for Constant Fatality Rate of an Emerging Epidemic with Applications to Severe Acute Respiratory Syndrome in Hong Kong and Beijing—✱**Ying Xu, The University of Hong Kong; S. F. Yip, The University of Hong Kong; K. F. Lam, The University of Hong Kong

3:35 p.m. **HWR: An Adaptive Anomaly Detection Algorithm—✱**Sylvia Halasz, AT&T Labs - Research; Colin Goodall, AT&T Labs - Research; Arnold Lent, AT&T Labs - Research

316 CC-105

● Teaching Advanced Topics—Contributed

Section on Statistical Education

Chair(s): Joan Weinstein, Pine Manor College

2:05 p.m. **The Importance of Making the Distinction Between 'Invalid' and 'Inefficient' Procedures—✱**Laurence D. Robinson, Ohio Northern University

2:20 p.m. **The Negative Hypergeometric Distribution—✱**John J. Kinney, Retired

2:35 p.m. **Confidence Intervals for the Difference Between Two Means—✱**Weiwen Miao, Haverford College

2:50 p.m. **Using Factor Tables To Understand Autoregressive Models—✱**Wayne A. Woodward, Southern Methodist University; Henry L. Gray, Southern Methodist University; James R. Haney, Southern Methodist University; Alan C. Elliott, The University of Texas Southwestern Medical Center

3:05 p.m. **Popcorn Popping Yield: An Investigation—✱**Irina A. Kukuyeva, University of California, Los Angeles; Jean Wang, University of California, Los Angeles; Yuliya Yaglovskaya, University of California, Los Angeles

3:20 p.m. **Using Board Games and Mathematica To Teach the Fundamentals of Finite, Stationary Markov Chains—✱**Roger Bilisoly, Central Connecticut State University

3:35 p.m. **Floor Discussion**

317 CC-112

Networks—Contributed

Section on Statistical Computing, Section on Statisticians in Defense and National Security, WNAR

Chair(s): Jamis Perrett, Texas A&M University

2:05 p.m. **Methods for Time-Dependent Network Analysis—✱**Andrew C. Thomas, Harvard University; Joseph Blitzstein, Harvard University

2:20 p.m. **Collapsibility for Directed Acyclic Graphs—✱**Xianchao Xie, Harvard University; Zhi Geng, Peking University

2:35 p.m. **Combining Covariate Data and Graph Regularization in a Semisupervised Setting—✱**Mark Culp, West Virginia University; George Michailidis, The University of Michigan

2:50 p.m. **Grid Computing—✱**Abdullah A. Alnoshan, The George Washington University; Shmuel Rotenstreich, The George Washington University

3:05 p.m. **Fault Detection in Embedded Networked Sensing—✱**Sheela Nair, University of California, Los Angeles; Mark H. Hansen, University of California, Los Angeles

3:20 p.m. **Relationship Between Prophets and Chapters in the Holy Quran—✱**Walid K. Sharabati, George Mason University; Yasmin H. Said, George Mason University; Edward J. Wegman, George Mason University

3:35 p.m. **Distributions of Patterns and Statistics in Dynamic Conditional Random Fields—✱**Donald E.K. Martin, North Carolina State University; John A.D. Aston, Warwick University

318 CC-206

General Issues in Highway Safety and Risk Assessment—Contributed

Section on Risk Analysis

Chair(s): Michael E. Tarter, University of California, Berkeley

2:05 p.m. **An Investigation of the Potential Effects of Nonresponse on the BTS Omnibus Household Survey—✱**Pheny Z. Weidman, Bureau of Transportation Statistics

2:20 p.m. **Electronic Records of Undesirable Driving Events—✱**Oren Musicant, Ben-Gurion University of the Negev; Hillel Bar-Gera, Ben-Gurion University of the Negev; Edna Schechtman, Ben-Gurion University of the Negev

2:35 p.m. **Recursive Partition for Early Outbreak Detection—✱**Ross S. Sparks, CSIRO Mathematical and Information Sciences; Chris Okugami, CSIRO Mathematical and Information Sciences

2:50 p.m. **Evaluating the Effects of Commercial Vehicle Information Systems at Preventing Large Truck Crashes—✱**Michael Anderson, Battelle

3:05 p.m. **Endogeneity of an Ordered Explanatory Variable in a Bivariate Model: Accidents and Deductible Choice for Young Drivers—**Michel Grun-Rehomme, Université Paris2, ERMES; ✱Olga Vasechko, Research Institute of Statistics; Noureddine Benlagha, Université Paris2, ERMES

3:20 p.m. **Addressing the Complexity of Speed Measurements at Intersections in Determining the Effectiveness of Speed-Reducing Treatments—✱**Courtney Bokenkroger, Midwest Research Institute; Karin M. Bauer, Midwest Research Institute

3:35 p.m. **Floor Discussion**

319 CC-202

Statistical Applications in Engineering—Contributed

Section on Physical and Engineering Sciences

Chair(s): Stephanie Pickle, DuPont

2:05 p.m. **A Cost-Efficient Approach to Wireless Sensor Network Design—✱**Natallia V. Katenka, The University of Michigan; Elizaveta Levina, The University of Michigan; George Michailidis, The University of Michigan

2:20 p.m. **The Conflict of Wave Function Collapse with Special Relativity: A Classical Statistician's View—✱**John W. Sawyer, Simbalien

2:35 p.m. **Service-Level Agreement for the Stochastic Business Processes—✱**Genady Y. Grabarnik, IBM T. J. Watson Research Center; Laura Shwartz, IBM T. J. Watson Research Center

2:50 p.m. **A Detailed Correlation Analysis of Enzymatic Reaction of a Single Protein Based on the Stochastic Network Model—✱**Chao Du, Harvard University; Samuel Kou, Harvard University

3:05 p.m. **Statistical Design and Analysis of Corrosion Experiments—✱**Joanne R. Wendelberger, Los Alamos National Laboratory

3:20 p.m. **Statistical Adjustments to Engineering Models—✱**Roshan J. Vengazhiyil, Georgia Institute of Technology; Shreyes N. Melkote, Georgia Institute of Technology

3:35 p.m. **Disaster Recovery Planning: SLA to Infrastructure Tradeoff—✱**Laura Shwartz, IBM T. J. Watson Research Center; Genady Y. Grabarnik, IBM T. J. Watson Research Center

320 CC-106

● ▲ General Methodology—Nonparametric and Semiparametric Style!—Contributed

Section on Nonparametric Statistics, IMS

Chair(s): Jin Wang, Northern Arizona University

2:05 p.m. **Robust Likelihood Methods Based on the Skew-T and Related Distributions—**Adelchi Azzalini, University of Padova; ✱Marc G. Genton, University of Geneva

2:20 p.m. **Tests of Fit for the Beta Binomial Distribution—✱**John Best, University of Newcastle, Australia; John Rayner, University of Newcastle, Australia; Olivier Thas, Ghent University

2:35 p.m. **Application of Deconvolution Method in a Graded Glucose Infusion Study—✱**Bing Gao, Merck & Co., Inc.

2:50 p.m. **Empirical Investigation of Uncertainty Measures for Unbalanced Repeated Measures Models—✱**Christine Spinka, University of Missouri-Columbia; Scott Holan, University of Missouri-Columbia

3:05 p.m. **Assessing Individual Observer Agreement in Studies Involving Replicated Observations—✱**Jingjing Gao, Emory University; Michael Haber, Emory University

3:20 p.m. **On the Superposition of Overlapping Realizations of a Nonhomogeneous Poisson Process—✱**Gustavo L. Gilardoni, Universidade de Brasilia; Enrico A. Colosimo, Universidade Federal de Minas Gerais

3:35 p.m. **Comparing the Efficiency of Automatic Forward Search Estimators with That of Alternative Robust Estimators in Linear Regression Models—✱**Francesco Polverini, University of Florence; Bruno Bertaccini, University of Florence

321 CC-108

Recent Advances in Regression and Linear Modeling—Contributed

IMS, Section on Nonparametric Statistics

Chair(s): Mayetri Gupta, Boston University

2:05 p.m. **Recent History Functional Linear Models—✱**Kion Kim, The Pennsylvania State University

2:20 p.m. **Estimating Expectations in Semiparametric Regression with Missing Responses—✱**Ursula Müller-Harknett, Texas A&M University

2:35 p.m. **Central Limit Theorems for Weighted Linear Processes and Their Applications—✱**Kairat T. Mynbaev, Kazakh-British Technical University

2:50 p.m. **Application of Directional Regression of EEG Data—✱**Min Kyung Kim, The Pennsylvania State University

3:05 p.m. **Regression Level Set Estimation via Tree Warping—✱**Gabe Chandler, Connecticut College

3:20 p.m. **Floor Discussion**

322 CC-606

Analysis of Interval-Censored Data—Contributed

Biometrics Section, WNAR

Chair(s): Jeffrey R. Wilson, Arizona State University

2:05 p.m. **Nonparametric Comparisons of Waiting Time Distributions in a Markov System Under Current Status Data—✱**Ling Lan, University of Louisville; Somnath Datta, University of Louisville

2:20 p.m. **Efficient Estimation for Bivariate Current Status Data with Proportional Odds Model—✱**Bin Zhang, University of Missouri-Columbia; Xingwei Tong, Beijing Normal University; Jianguo (Tony) Sun, University of Missouri-Columbia

2:35 p.m. **A Multiple Imputation Approach to the Analysis of Current Status Data with the Additive Hazards Model—✱**Ling Chen, University of Missouri-Columbia; Jianguo (Tony) Sun, University of Missouri-Columbia

2:50 p.m. **Inference and Uniqueness for Chain-of-Events Data Subject to Interval Censoring—✱**Beth Ann Griffin, RAND Corporation; Stephen Lagakos, Harvard University

3:05 p.m. **A New Approach to Test for the Homogeneity of Failure Time Distributions When Data Are Interval-Censored—✱**HeeJeong Lim, California State University, Fullerton

3:20 p.m. **Modeling Multivariate Current-Status Survival Outcomes with Frailty Model—✱**Ying-Fang Wang, University of California, Davis

3:35 p.m. **Floor Discussion**

323 CC-608

Statistical Methods for Analysis of Microarray Data—Contributed

Biometrics Section, WNAR

Chair(s): Santosh C. Sutradhar, Pfizer, Inc.

2:05 p.m. **Modeling Dependent Gene Expression—✱**Donatello Telesca, The University of Texas M.D. Anderson Cancer Center; Peter Mueller, The University of Texas M.D. Anderson Cancer Center; Giovanni Parmigiani, Johns Hopkins University

2:20 p.m. **The Beta-Binomial Distribution for Estimating the Number of False Rejections in Microarray Gene Expression Studies—✱**Daniel L. Hunt, St. Jude Children's Research Hospital; Cheng Cheng, St. Jude Children's Research Hospital; Stanley B. Pounds, St. Jude Children's Research Hospital

2:35 p.m. **Statistical Test for Clonality Using Array-CGH Data—✱**Irina Ostrovnaya, Memorial Sloan-Kettering Cancer Center; Colin B. Begg, Memorial Sloan-Kettering Cancer Center; Adam Olshen, Memorial Sloan-Kettering Cancer Center; Venkatraman E. Seshan, Columbia University

2:50 p.m. **A Markov Chain Monte Carlo Bayesian Network Approach To Infer Gene Co-Regulation Patterns—✱**Younhee Ko, University of Illinois at Urbana Champaign; Chengxiang Zhai, University of Illinois at Urbana Champaign; Sandra L. Rodriguez-Zas, University of Illinois at Urbana-Champaign

3:05 p.m. **Array Data Analyzer: A Novel Tool for Analyzing High-Dimensional Array Data—✱**Jie Cheng, GlaxoSmithKline; Joel Greshock, GlaxoSmithKline; Xiwu Lin, GlaxoSmithKline R&D; Kwan Lee, GlaxoSmithKline

3:20 p.m. **Detecting Cellular Differentiation from Gene Expression Measurements—✱**Feng Hong, University of Illinois at Urbana-Champaign; Xuming He, University of Illinois at Urbana-Champaign; Sheng Zhong, University of Illinois at Urbana-Champaign

3:35 p.m. **Floor Discussion**

324 CC-601

● ▲ Use of Decision Analysis in Clinical Trials—Contributed

Biopharmaceutical Section, Section on Health Policy Statistics, Biometrics Section

Chair(s): Xiaoming Li, Merck Research Laboratories

2:05 p.m. **Benefit-Risk Assessment in Dose-Finding Trials—✱**Hui Quan, sanofi-aventis; Yujun Wu, sanofi-aventis

2:20 p.m. **Decision Analysis: A Tool for Biostatisticians To Select and Present Clinical Trial Design—✱**Marc L. de Somer, McMaster University; Lehana Thabane, McMaster University

2:35 p.m. **A Novel Approach to Proof-of-Concept in Stroke Recovery—✱**Christopher Assaid, Merck Research Laboratories

2:50 p.m. **A Bayesian Approach To Assess Probability of Success of a Study—✱**Fang Liu, Merck Research Laboratories

3:05 p.m. **Using Posterior Probability as Decision Rule for Nonsuperiority Study—✱**Danielle Sheng, Merck & Co., Inc.; Matilde Sanchez, Arena Pharmaceuticals

3:20 p.m. **Hypothesis Testing with a Buffer Area—✱**Boshao Zhang, Medical University of South Carolina

3:35 p.m. **Decision Analysis in Late-Stage Clinical Trials—✱**Suvajit Samanta, Merck Research Laboratories; Weili He, Merck Research Laboratories

Contributed Poster Presentations 2:00 p.m.–3:50 p.m.

325 CC-F Lobby

Contributed Poster Presentations—Contributed

Biopharmaceutical Section, Biometrics Section, Section on Health Policy Statistics, Section on Physical and Engineering Sciences, Section on Risk Analysis, Section on Statistical Computing, Section on Statistical Consulting, Section on Statistics and the Environment, Section on Statistics in Epidemiology, Social Statistics Section

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Engineering and physical sciences, chemometrics

63 Parameter Estimation in Astrophysical Accretion Disc Models—✱Elizabeth Martínez-Gómez, National Autonomous University of Mexico; Jorge Cantó-Illa, National Autonomous University of Mexico; Victor M. Guerrero Guzmán, Instituto Technológico Autónomo De México

64 Estimating Critical Micelle Concentration (CMC) via Change-Point Regression Modeling—✱Tom Filloon, Procter & Gamble

65 Building Bridges Between Planetary Sciences and Statistics—✱Padma Yanamandra-Fisher, Jet Propulsion Laboratory; David Holt, University of California, Irvine; Ka Wong, University of California, Los Angeles; Amy Braverman, Jet Propulsion Laboratory; Sean Jezweski, California Institute of Technology

66 Algorithm of Periodic Signal Reconstruction from Noisy Environment—✱Amy L. Potrzeba, University at Albany; Igor G. Zurbenko, University at Albany

Experimental design

67 A Propensity Score Analysis To Improve Covariate Balance in a Randomized Experiment: Reducing Bias in the Prevention of Perinatal Sepsis (PoPS) Trial—✱Cassandra K. Wolos, Harvard University; Donald B. Rubin, Harvard University

68 Investigating the Use of Computational Algorithms for Constructing Nonregular Robust Parameter Designs—Debra Ingram, Arkansas State University; ✱Latia Carraway, Arkansas State University

69 Response Surfaces, Blocking, and Split Plots: An Industrial Experiment Case Study—✱Willis Jensen, W.L. Gore & Associates

Reliability and survival modeling, risk analysis

70 Risk and Protection Factors in Breast Cancer—✱Luis S. Cid, University of ConcepciÛn; Jorge P. Pierart, Universidad de Concepcion; Sandra Ramirez, Universidad de Concepcion

71 A Simulation Study of Performance of Hypertabastic and Hyperbolastic Survival Models in Comparison with Classic Survival Models—✱Zoran Bursac, University of Arkansas for Medical Sciences; Mohammad Tabatabai, Cameron University; D. Keith Williams, University of Arkansas for Medical Sciences

72 Power and Sample Size Calculations for Current Status Survival Analysis—✱John M. Williamson, Centers for Disease Control and Prevention; Hung-Mo Lin, Mount Sinai School of Medicine; Hae-Young Kim, New England Research Institutes

73 Multiple-Event Survival Analysis of Chronic Stable Angina and Asymptomatic Known Coronary Artery Disease—✱Zugui Zhang, Christiana Care Health System; Paul Kolm, Christiana Care Health System; Ewen Edward, Christiana Care Health System

74 A Cure Model for Alternating States Data with Frailty—✱E. Paul Wileyto, University of Pennsylvania; Daniel F. Heitjan, University of Pennsylvania

75 **Weight Selection in Survival Analysis with Delayed Effect—✱**Boguang Zhen, U.S. Food and Drug Administration

76 **Calculation of Sample Size for Clinical Trials in Presence of Dependent Right Censoring—✱**Huang Ching-yu, National Health Research Institutes; Peng Nanfu, National Chiao Tung University; Chang Hsing-Yi, National Health Research Institutes

77 **Comparing Survival Functions Between a Surgical Cohort and Matched Members of the General Population—✱**David M. Thompson, University of Oklahoma; Ronald Elkins, University of Oklahoma

78 **Software To Support Weibull Inference—✱**John I. McCool, Pennsylvania Great Valley

79 **Maximum Likelihood Estimation Methodology Comparison for the Three-Parameter Weibull Distribution with Applications to Offshore Oil Spills in the Gulf of Mexico—✱**William V. Harper, Otterbein College; Thomas R. James, Otterbein College; Ted G. Eschenbach, TGE Consulting

Social and behavioral science

80 **Causal Modeling Approach to Differential Treatment Effects—✱**Jennifer Faerber, University of Pennsylvania; Thomas Ten Have, University of Pennsylvania; Dylan Small, University of Pennsylvania; Marshall Joffe, University of Pennsylvania

81 **Type I Error Rates and Power for Factor Analysis Applied to Data from the Latent Class Model—✱**James P. Long, Columbia University; John Kolassa, Rutgers, The State University of New Jersey

82 **Smaller but More Unequal World? A Network Analysis of the World City System—✱**Xiulian Ma, The University of Utah

83 **Classification and Regression Tree (CART) Analysis: Advantages on Interaction Effect—✱**Yinmei Huang, The University of Akron

84 **Chinese and American Self and Other: Calibration in Relative Rank on Everyday Tasks—✱**Adam Molnar, Bellarmine University; Shali Wu, The University of Chicago

85 **Studying Mexican Return Migration at the Locality Level in 2000 and 2005—✱**Claudia Masferrer, The University of Texas at Austin; Bryan Roberts, The University of Texas at Austin

86 **Social Network Analysis (SNA) of Weighted Telecommunication Graphs—**Norbert Walchhofer, Vienna University of Economics and Business Administration; ✱Angela Bohn, EC3 E-Commerce Competence Center

87 **Using Latent Class Analysis To Categorize Patterns of Psychiatric Disorders: The Case of Nicotine Withdrawal—✱**Tania Robbins, RTI International; Scott Novak, RTI International; Sara Calvin, RTI International

88 **Reading Literacy Trajectories Among Different Gender and Ethnicity—✱**Man Hung, The University of Utah

89 **Variable Selection for Propensity Score Models—✱**Bing Yu, University of Toronto; Guanglei Hong, University of Toronto

90 **Discrepancies in Cohen's Proposed Effect Sizes—✱**James Schmeidler, Mount Sinai School of Medicine

Invited Session 4:00 p.m.–5:50 p.m.

326 CC-Four Seasons Ballroom

Deming Lecture—Invited

ASA, ENAR, IMS, SSC, WNAR, Deming Lectureship Committee, Biometrics Section

Organizer(s): Nicholas I. Fisher, University of Sydney

Chair(s): Steven Cohen, Agency for Healthcare Research and Quality

4:05 p.m. **Inference and Improvement in Health Care—✱**Donald M. Berwick, Institute for Healthcare Improvement

5:30 p.m. **Floor Discussion**

Invited Session 8:00 p.m.–9:30 p.m.

327 CC-Four Seasons Ballroom

ASA Presidential Address and Awards—Invited

ASA, ENAR, IMS, SSC, WNAR, Biometrics Section

Organizer(s): Peter A. Lachenbruch, Oregon State University

Chair(s): Mary Ellen Bock, Purdue University

8:00 p.m. **Presentations of Awards—✱**Mary Ellen Bock, Purdue University

8:30 p.m. **Communicating Statistics and Developing Professionals—✱**Peter A. Lachenbruch, Oregon State University

9:00 p.m. **Presentation of Founders Awards and New ASA Fellows—✱**Mary Ellen Bock, Purdue University

▲Theme Session ● Applied Session ✱ Presenter **CC**-Colorado Convention Center **HY**-Hyatt Regency Denver

WEDNESDAY, AUGUST 6

Tours

TR10 - Foothills Tour
2:00 p.m.–6:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

Committee/Business Meetings & Other Activities

7:00 a.m.–8:30 a.m. HY-Limestone
Committee of Representatives to AAAS Business Meeting
Chair(s): Michael P. Cohen, Statistical Consultant

7:00 a.m.–6:00 p.m. CC-F2 Lobby Office
Speaker Management Room

7:00 a.m.–8:00 p.m. CC-A Lobby
Cyber Center

7:30 a.m.–4:30 p.m. CC-A Lobby
JSM Main Registration

7:30 a.m.–4:30 p.m. CC-A Lobby
ASA Membership/Special Assistance/Press Desk

8:00 a.m.–10:00 a.m. HY-Sandstone
Committee on Outreach Education Business Meeting (closed)
Chair(s): Wendy Martinez, Office of Naval Research

8:00 a.m.–2:00 p.m. CC-Exhibit Hall F
Exhibitor Lounge

8:00 a.m.–4:30 p.m. CC-Exhibit Hall A
Career Placement Service

8:00 a.m.–6:00 p.m. CC-Main Lobby
Denver Visitors Information Center

8:30 a.m.–10:20 a.m. CC-207
Late-Breaking Session II: What Can Statistical Methods Tell Us About Steroid Use and Its Effects Among Major League Baseball Players?
Organizer(s): Michael J. Schell, Moffitt Cancer Center; James H. Albert, Bowling Green State University
Chair(s): Phyllis J. Curtiss, Grand Valley State University

8:30 a.m.–10:20 a.m. CC-205
Introductory Overview Lecture: Sample Size and Related Issues
Organizer(s): Russell Lenth, The University of Iowa
Chair(s): John Castelloe, SAS Institute Inc.

8:30 a.m.–10:30 a.m. HY-Marble
Advisory Committee on Continuing Education Excellence in CE Meeting (closed)
Chair(s): Eileen King, The Procter & Gamble Co

9:00 a.m.–11:00 a.m. HY-Capitol Ballroom 6
Council of Sections Publications, Editors, and Webmasters Meeting
Chair(s): Andre Lubecke, Lander University

9:00 a.m.–2:00 p.m. CC-Exhibit Hall F
American Statistical Association Booth #101

9:00 a.m.–2:00 p.m. CC-Exhibit Hall F
EXPO 2008

9:00 a.m.–5:00 p.m. CC-A Lobby
ASA Marketplace

11:30 a.m.–1:50 p.m. HY-Limestone
Committee on Meetings
Chair(s): Xiao-Li Meng, Harvard University

12:00 p.m.–2:00 p.m. CC-208
2009 ENAR Spring Meeting Planning Committee Luncheon
Organizer(s): Kathy Hoskins, ENAR

12:00 p.m.–2:00 p.m. HY-Sandstone
Committee on International Relations in Statistics Meeting (closed)
Chair(s): Demissie Alemayehu, Pfizer, Inc.

12:30 p.m.–2:00 p.m. HY-Marble
Noether Award Committee Luncheon (closed)
Chair(s): Carlos J. Morales, Wellington Management Company

12:30 p.m.–2:00 p.m. HY-Agate A
Writing Workshop for Junior Researchers-Lunch (closed)
Chair(s): Keith Crank, The American Statistical Association

2:00 p.m.–9:00 p.m. CC-Exhibit Hall F
Exhibitor Move Out

5:30 p.m.–6:30 p.m. CC-202
Student's Tea: A Get-Together for Students Interested in Statistics Education
Chair(s): Jackie Miller, The Ohio State University

6:00 p.m.–7:00 p.m. CC-207
International Chinese Statistical Association Annual Members Meeting
Organizer(s): Ming-Hui Chen, University of Connecticut

6:00 p.m.–7:30 p.m. CC-103
Section on Survey Research Methods Business Meeting
Chair(s): Mary H. Mulry, U.S. Census Bureau

6:00 p.m.–7:30 p.m. HY-Monarch Suite
2008 JSM Program Committee/ACCE/Local Area Committee Appreciation Reception (by invitation only)
Chair(s): Xiao-Li Meng, Harvard University; Russell Lenth, The University of Iowa; Eileen King, The Procter & Gamble Co

6:30 p.m.–8:00 p.m. CC-202
Section on Statistical Education Business Meeting
Chair(s): Linda J. Young, University of Florida

Continuing Education (Fee Events)

CE_29T
Meta-Analysis: Concepts and Applications
8:00 a.m.–9:45 a.m. HY-Capitol Ballroom 1
ASA
Instructor(s): Michael Borenstein, Biostat, Inc.; Hannah R. Rothstein, Biostat, Inc.

CE_30T
Determining Sample Size and Power in Study Planning: nQuery Advisor 7.0
8:00 a.m.–9:45 a.m. HY-Capitol Ballroom 2
ASA
Instructor(s): Janet Elashoff, Statistical Solutions; Brian Sullivan, Statistical Solutions

CE_31T
An Introduction to Stat Studio for SAS/STAT Users
8:00 a.m.–9:45 a.m. HY-Capitol Ballroom 3
ASA
Instructor(s): Rick Wicklin, SAS Institute Inc.

CE_32T
From Software to Solutions in Statistics and Risk Analysis
8:00 a.m.–9:45 a.m. HY-Capitol Ballroom 7
ASA
Instructor(s): Shawn Harahush, Palisade

CE_33T
EastAdapt: A Module for Late-Stage Adaptive Trial Design Within the East 5 Software System
10:00 a.m.–11:45 a.m. HY-Capitol Ballroom 1
ASA
Instructor(s): Cyrus R. Mehta, Cytel Inc.

CE_34T
Survey Data Analysis with Stata
10:00 a.m.–11:45 a.m. HY-Capitol Ballroom 2
ASA
Instructor(s): Jeffrey Pitblado, Stata Corp LP

CE_35T
Nonparametric Regression Modeling in SAS Software
10:00 a.m.–11:45 a.m. HY-Capitol Ballroom 3
ASA
Instructor(s): Weijie Cai, SAS Institute Inc.

CE_36T
Introduction to CART: Data Mining with Decision Trees
10:00 a.m.–11:45 a.m. HY-Capitol Ballroom 7
ASA
Instructor(s): Mikhail Golovnya, Salford Systems

CE_37T
New Software for the Design, Analysis, and Reporting of Bioequivalence and Clinical Pharmacology Trials
1:00 p.m.–2:45 p.m. HY-Capitol Ballroom 1
ASA
Instructor(s): Yannis Jemiai, Cytel Inc.; Pralay Senchuadhuri, Cytel Inc.

CE_38T
New Procedures and Features for Clustered and Survey Data Analysis in SUDAAN Release 10
1:00 p.m.–2:45 p.m. HY-Capitol Ballroom 2
ASA
Instructor(s): Angela Pitts, RTI International; George G. Brown, RTI International

CE_39T
Introduction to Bayesian Analysis Using SAS Software
1:00 p.m.–2:45 p.m. HY-Capitol Ballroom 3
ASA
Instructor(s): Fang Chen, SAS Institute Inc.

CE_40T
Introduction to MARS: Predictive Modeling with Nonlinear Automated Regression Tools
1:00 p.m.–2:45 p.m. HY-Capitol Ballroom 7
ASA
Instructor(s): Mikhail Golovnya, Salford Systems

CE_41T
Exact Methods Module for East 5: Design, Simulate, Analyze, and Monitor Binomial Endpoint Trials by Exact Inference Methods
3:00 p.m.–4:45 p.m. HY-Capitol Ballroom 1
ASA
Instructor(s): Anthiyur Kannappan, Cytel Inc.; Pralay Senchuadhuri, Cytel Inc.

CE_42T
Structural Analysis of Time Series Using the SAS/ETS UCM Procedure
3:00 p.m.–4:45 p.m. HY-Capitol Ballroom 3
ASA
Instructor(s): Rajesh Selukar, SAS Institute Inc.

CE_43T

Advances in Data Mining: Jerome Friedman's TreeNet/MART and Leo Breiman's Random Forests

3:00 p.m.–4:45 p.m. HY-Capitol Ballroom 7

ASA

Instructor(s): Mikhail Golovnya, Salford Systems

Roundtables with Coffee 7:00 a.m.–8:15 a.m.

328 **CC-208**

Section on Quality and Productivity Roundtable with Coffee (fee event)

Section on Quality and Productivity

Organizer(s): Donald W. McCormack, Jr., Amgen, Inc.

WL01 **Will Work for Data: Observations on Life as an Industrial Statistician—**✱Theresa Utlaut, Intel Corporation

329 **CC-208**

Section on Statistical Education Roundtable with Coffee (fee event)

Section on Statistical Education

Organizer(s): Peter Westfall, Texas Tech University

WL02 **Incorporating GAISE in Online Introductory Statistics Courses—**✱Sue Schou, Idaho State University

330 **CC-208**

Section on Statistics and the Environment Roundtables with Coffee (fee event)

Section on Statistics and the Environment

Organizer(s): Andrew B. Lawson, University of South Carolina

WL03 **Bayesian Space-Time Disease Mapping: Issues and Opportunities—**✱Andrew B. Lawson, University of South Carolina

WL04 **20 Questions Statisticians Should Ask About Climate Change—**✱Edward J. Wegman, George Mason University; Yasmin H. Said, George Mason University; David W. Scott, Rice University

331 **CC-208**

Section on Statistics in Epidemiology Roundtable with Coffee (fee event)

Section on Statistics in Epidemiology

Organizer(s): Amy H. Herring, The University of North Carolina at Chapel Hill

WL05 **Methods for Assessing Exposures to Mixtures of Chemicals—**✱Amy H. Herring, The University of North Carolina at Chapel Hill; Enrique F. Schisterman, National Institute of Child Health and Human Development; ✱Rajeshwari Sundaram, National Institutes of Health

332 **CC-208**

Section on Teaching Statistics in the Health Sciences Roundtable with Coffee (fee event)

Section on Teaching Statistics in the Health Sciences

Organizer(s): Carol Bigelow, University of Massachusetts Amherst

WL06 **Enhancing Statistical Literacy in the Medical Professions—**✱Penelope Pekow, University of Massachusetts Amherst; Carol Bigelow, University of Massachusetts Amherst

Special Presentation 8:30 a.m.–10:20 a.m.

333 **CC-207**

Late-Breaking Session II: What Can Statistical Methods Tell Us About Steroid Use and Its Effects Among Major League Baseball Players?—Other

ASA, ENAR, IMS, SSC, WNAR, Section on Statistics in Sports

Organizer(s): Michael J. Schell, Moffitt Cancer Center; James H. Albert, Bowling Green State University

Chair(s): Phyllis J. Curtiss, Grand Valley State University

Panelists: ✱James H. Albert, Bowling Green State University

✱Gary Gates, Williams Institute

✱Michael J. Schell, Moffitt Cancer Center

✱Andrew Dolphin, Raytheon Company

✱Phil Birnbaum, Society for American Baseball Research

10:15 p.m. **Floor Discussion**

334 CC-205
Introductory Overview Lecture: Sample Size and Related Issues—Other

ASA, ENAR, IMS, SSC, WNAR, Biopharmaceutical Section, Section on Government Statistics, Section on Survey Research Methods, Section on Teaching Statistics in the Health Sciences, Social Statistics Section

Organizer(s): Russell Lenth, The University of Iowa
Chair(s): John Castelloe, SAS Institute Inc.

8:35 a.m. **What Are the Crucial Error Rates To Consider in Sample-Size Analysis?—✱**Ralph O'Brien, Case Western Reserve University

9:25 a.m. **A Good N Despite a Bad Start: A Practical Guide to Easy Internal Pilots—✱**Keith E. Muller, University of Florida

10:15 a.m. **Floor Discussion**

Invited Sessions 8:30 a.m.–10:20 a.m.

335 CC-709
▲ The Life of a Statistician: In Memory of Professor Jack Lee—Invited

Memorial, Section on Nonparametric Statistics, Committee on ASA Archives and Historical Materials

Organizer(s): Dennis K.J. Lin, The Pennsyvania State University; Henry H.S. Lu, National Chiao Tung University
Chair(s): Grace Yang, National Science Foundation

8:35 a.m. **The Life of a Statistician: In Memory of Professor Jack Lee—✱**Jane-Ling Wang, University of California, Davis

8:55 a.m. **A Robust Approach to Joint Modeling of Mean and Scale Covariance for Longitudinal Data—✱**Tsung-I Lin, National Chung Hsing University; Yun-Jen Wang, National Chiao Tung University

9:15 a.m. **Nonparametric Monotone Regression for Generalized Linear Models with Applications to Wafer Acceptance Tests—✱**Jyh-Jen H. Shiau, National Chiao Tung University

9:35 a.m. **Multidimensional Scaling for Large Genomic Data Sets—**Jengnan Tzeng, Academia Sinica; ✱Henry H.S. Lu, National Chiao Tung University; Wen-Hsiung Li, The University of Chicago

9:55 a.m. Disc: George C. Tiao, The University of Chicago

10:15 a.m. **Floor Discussion**

336 CC-703
Mixture Models: A Tool for Multilayered Clustering and Dimension Reduction—Invited

IMS, WNAR

Organizer(s): Surajit Ray, Boston University
Chair(s): Ofer Harel, University of Connecticut

8:35 a.m. **EM-Test for Finite Mixture Models—✱**Jiahua Chen, The University of British Columbia

9:00 a.m. **Modal Inference and Its Application to High-Dimensional Clustering—✱**Surajit Ray, Boston University

9:25 a.m. **Mixture Models for Document Clustering—✱**Edward J. Wegman, George Mason University

9:50 a.m. Disc: Peter G. Hall, The University of Melbourne

10:10 a.m. **Floor Discussion**

337 CC-702
▲ Privacy Breaches in Federal Data Collections—Invited

Section on Survey Research Methods, Section on Government Statistics, Section on Statisticians in Defense and National Security

Organizer(s): Marilyn Seastrom, National Center for Education Statistics
Chair(s): Katherine Wallman, Office of Management and Budget

8:35 a.m. **Applying Federal Data Security Policy to Statistical Agency Practices—✱**Rochelle W. Martinez, Office of Management and Budget; John W. Barkhamer, Office of Management and Budget

9:00 a.m. **U.S. Census Bureau's Approach To Address OMB's Guidelines and Rules Relating to Privacy Breaches in Federal Statistical Agencies—✱**Nancy M. Gordon, U.S. Census Bureau

9:25 a.m. **The Impact of a Privacy Breach on Survey Participation in a National Longitudinal Survey—✱**Marilyn Seastrom, National Center for Education Statistics; Jennifer Park, National Center for Education Statistics

10:10 a.m. **Floor Discussion**

338 CC-203

Stirring the Pot: Radical Ideas in Statistics Education—Invited

Section on Statistical Education

Organizer(s): Jackie Miller, The Ohio State University

Chair(s): Ann Cannon, Cornell College

8:35 a.m. **Statistical Thinking: A New First Course in Statistics—✱**Bruce Dunham, The University of British Columbia

8:55 a.m. **It's Time To Retire 'N >= 30'—✱**Tim Hesterberg, Google, Inc.

9:15 a.m. **Concepts of Statistical Inference: A Randomization-Based Curriculum—✱**Allan Rossman, California Polytechnic State University; Beth Chance, California Polytechnic State University; George Cobb, Mt. Holyoke College; John Holcomb, Cleveland State University

9:35 a.m. **Guided Interdisciplinary Research Projects—✱**Shonda Kuiper, Grinnell College

9:55 a.m. Disc: George Cobb, Mt. Holyoke College

10:15 a.m. **Floor Discussion**

339 CC-103

● ▲ Statistical Consulting and Collaboration in Private Industries—Invited

Section on Statistical Consulting

Organizer(s): I-Li Lu, The Boeing Compnay

Chair(s): I-Li Lu, The Boeing Compnay

8:35 a.m. **Statistical Collaboration at Boeing: The Good, the Better, and the Best—✱**Sabyasachi Basu, The Boeing Company

9:05 a.m. **Statistical Consulting in Pharmaceutical Development: What Turns Outsourcing into Collaboration?—✱**Russell Helms, Rho, Inc.

9:25 a.m. **Statistical Consulting in the Automotive Industry: Opportunities, Challenges, and Impact—✱**Lonnie Vance, General Motors (Retired)

9:50 a.m. Disc: Jeffrey A. Robinson, General Motors R&D Center

10:10 a.m. **Floor Discussion**

340 CC-708

● Innovative Methods for Imputation—Invited

Section on Health Policy Statistics, Section on Government Statistics, Section on Survey Research Methods

Organizer(s): David R. Judkins, Westat, Inc.

Chair(s): David R. Judkins, Westat, Inc.

8:35 a.m. **Evaluation of Multiple Imputation by Ordered Monotone Blocks in an Anthrax Vaccine Trial—**Michela Baccini, University of Florence; Constantine E. Frangakis, Johns Hopkins University; Fan Li, Harvard Medical School; Fabrizia Mealli, University of Florence; Brian D. Plikaytis, Centers for Disease Control and Prevention; Charles E. Rose, Centers for Disease Control and Prevention; Donald B. Rubin, Harvard University; ✱Elizabeth R. Zell, Centers for Disease Control and Prevention

9:00 a.m. **Evaluation of Imputation of Covariates in an Impact Analysis with Regression Adjustment—**✱Eric Grau, Mathematica Policy Research, Inc.; Sue Ahmed, Mathematica Policy Research, Inc.

9:25 a.m. **Multiple Imputation for Protecting Data Confidentiality: Applications by the German Institute for Employment Research—**Jerome Reiter, Duke University; ✱Joerg Drechsler, German Institute for Employment Research; Susanne Rässler, Otto-Friedrich University Bamberg

9:50 a.m. **Heavy Children in Motor Vehicle Crashes: Imputation for Covariates with Missingness and Measurement Errors—**✱Dawei Xie, University of Pennsylvania; Yulei He, Harvard Medical School

10:15 a.m. **Floor Discussion**

341 CC-102

● Nested and Crossed Random Effects in Nonlinear Models—Invited

Biopharmaceutical Section, Section on Bayesian Statistical Science, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Reid D. Landes, University of Arkansas for Medical Sciences

Chair(s): Reid D. Landes, University of Arkansas for Medical Sciences

8:35 a.m. **Challenges and Opportunities for Nonlinear Mixed Models in Biological Assays—**✱David Lansky, Precision Bioassay

9:00 a.m. **Semiparametric Bayesian Approaches to Nonlinear Mixed Effects Models—**✱Peter Mueller, The University of Texas M.D. Anderson Cancer Center

9:25 a.m. **Bayesian Models for Repeatedly Repeated Data—**✱Gary L. Rosner, The University of Texas M.D. Anderson Cancer Center; Peter Mueller, The University of Texas M.D. Anderson Cancer Center; Fernando A. Quintana, PontifÌcia Universidad Católica de Chile

9:50 a.m. Disc: Jose Pinheiro, Novartis Pharmaceuticals

10:10 a.m. **Floor Discussion**

342 CC-110

● ▲ Statistical Challenges in Vaccine Clinical Studies—Invited

ENAR, Biopharmaceutical Section, WNAR, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Barbara Krasnicka, U.S. Food and Drug Administration; Sang Ahnn, U.S. Food and Drug Administration; Amelia D. Horne, U.S. Food and Drug Administration

Chair(s): Peter A. Lachenbruch, Oregon State University

8:35 a.m. **Issues and Challenges in Assessing Vaccine Efficacy and Correlates of Protection—**✱Ivan S.F. Chan, Merck Research Laboratories

9:00 a.m. **Assessing How Vaccine Efficacy Depends on HIV Genetics by Competing Risks Failure Time Methods—**✱Peter B. Gilbert, Fred Hutchinson Cancer Research Center; Yanqing Sun, The University of North Carolina, Charlotte; Ian W. McKeague, Columbia University

9:25 a.m. **Establishing Vaccine Safety in Studies with Rare Events—**✱Valerii V. Fedorov, GlaxoSmithKline

9:50 a.m. **Statistical Challenges in Vaccine Clinical Studies: An FDA Perspective—**✱Amelia D. Horne, U.S. Food and Drug Administration

10:15 a.m. **Floor Discussion**

Invited Panel 8:30 a.m.–10:20 a.m.

343 CC-711

Best Practices in Collecting Survey Data on Sexual Orientation—Invited

Committee on Gay and Lesbian Concerns in Statistics, Section on Survey Research Methods, Social Statistics Section

Organizer(s): Arthur B. Kennickell, Federal Reserve Board of Governors; Barry Johnson, Statistics of Income, IRS

Chair(s): Arthur B. Kennickell, Federal Reserve Board of Governors

Panelists: ✱Christopher Carpenter, University of California, Irvine

✱Gary Gates, Williams Institute

✱Larry Bye, Field Research Corporation

✱Jana Asher

10:15 a.m. **Floor Discussion**

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

344 CC-712

● Using Innovative Sample Design Approaches, Contact Methodologies, and User Input To Reduce Coverage Bias in Surveying Hard-to-Locate Populations—Topic-Contributed

Section on Government Statistics, Section on Survey Research Methods

Organizer(s): Steve Cohen, National Science Foundation

Chair(s): Steve Cohen, National Science Foundation

8:35 a.m. **Developing a Sampling Frame for Postdoctoral Researchers—✱**Emilda B. Rivers, National Science Foundation

8:55 a.m. **Assessment of Lists for Building a Sample Frame of Academic Postdoc Employers—✱**Tina Mainieri, Survey Sciences Group LLC; Eduardo Galvan, Survey Sciences Group LLC; David Roe, Survey Sciences Group LLC; Emilda B. Rivers, National Science Foundation

9:15 a.m. **Frame Improvements for the 2007 Commodity Flow Survey—✱**Ruth E. Detlefsen, U.S. Census Bureau; Yukiko T. Ellis, U.S. Census Bureau

9:35 a.m. **Getting an Establishment Survey to the Right Person Within the Organization—✱**Jeri M. Mulrow, National Science Foundation; Ray Wolfe, National Science Foundation; Brandon Shackelford, Twin Ravens Consulting

9:55 a.m. Disc: Lisa Roney, U.S. Citizenship and Immigration Services

10:15 a.m. **Floor Discussion**

345 CC-111

● Advances in Bayesian Methods for Health Care Applications—Topic-Contributed

Section on Bayesian Statistical Science, Section on Health Policy Statistics

Organizer(s): A. James O'Malley, Harvard Medical School

Chair(s): Jason Stover, Georgia College & State University

8:35 a.m. **Determining Latent Dimensions of Disability: Use of Bayesian Methods To Combine Theoretical and Empirical Arguments—✱**Mary Beth Landrum, Harvard Medical School

8:55 a.m. **Bayesian Model Checking for Multivariate Data—✱**Catherine M. Crespi, University of California, Los Angeles; W. John Boscardin, University of California, Los Angeles

9:15 a.m. **Bayesian Analysis Using Priors from Historical Data—✱**Brian Neelon, Harvard Medical School; A. James O'Malley, Harvard Medical School

9:35 a.m. **Correcting for Measurement Error in Diagnoses of Post-Traumatic Stress Disorder—✱**Juned Siddique, The University of Chicago; Robert Gibbons, University of Illinois at Chicago; Bonnie Green, Georgetown University Medical School

9:55 a.m. **Combining Information on Adjuvant Cancer Therapies from Multiple Sources—✱**Yulei He, Harvard Medical School; Alan Zaslavsky, Harvard University Medical School

10:15 a.m. **Floor Discussion**

346 CC-706

● ▲ Combining Observations and Atmospheric Models To Predict and Understand Weather—Topic-Contributed

Section on Statistics and the Environment

Organizer(s): Doug Nychka, National Center of Atmospheric Research

Chair(s): Petrutza Caragea, Iowa State University

8:35 a.m. **NCAR's Data Assimilation Research Testbed—**Jeffrey Anderson, National Center for Atmospheric Research; ✱Timothy Hoar, National Center for Atmospheric Research; Nancy Collins, National Center for Atmospheric Research

8:55 a.m. **Experimental Implementation of an Ensemble Adjustment Filter for an Intermediate ENSO Model—✱**Alicia Karspeck, National Center for Atmospheric Research; Jeffrey Anderson, National Center for Atmospheric Research

9:15 a.m. **The Impacts of Radio Occultation Data on Analyses and Prediction of Tropical Cyclones Using WRF and an Ensemble Forecast System—✱**Hui Liu, National Center for Atmospheric Research; Chris Snyder, National Center for Atmospheric Research; Jeffrey Anderson, National Center for Atmospheric Research; Y. H. Kuo, National Center for Atmospheric Research

9:35 a.m. Disc: Chris Snyder, National Center for Atmospheric Research

9:55 a.m. Disc: Kevin Raeder, National Center for Atmospheric Research

10:15 a.m. **Floor Discussion**

347 CC-104

● ▲ Early Treatment Discontinuation: A Statistical Investigation—Topic-Contributed

Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): Hong Liu-Seifert, Eli Lilly and Company

Chair(s): Pali Sen, University of North Florida

8:35 a.m. **Joint Modeling of a Longitudinal Outcome and Early Study Discontinuation—✱**Donald Hedeker, University of Illinois at Chicago

8:55 a.m. **Predictors of Premature Treatment Discontinuation: A Statistical Investigation Across Four Disease States—✱**Hong Liu-Seifert, Eli Lilly and Company

9:15 a.m. **Reducing Attrition Bias with an Adjustment for Participants' Intent To Dropout of a Clinical Trial—✱**Andrew C. Leon, Weill Medical College of Cornell University; Hakan Demirtas, University of Illinois at Chicago; Donald Hedeker, University of Illinois at Chicago

9:35 a.m. Disc: Craig Mallinckrodt, Eli Lilly and Company

9:55 a.m. **Floor Discussion**

348 CC-106

● Analysis of Mixed Outcome Data in Health and Medicine via Copula Models—Topic-Contributed

Biometrics Section, Biopharmaceutical Section, Section on Statistics in Epidemiology, SSC, WNAR, Section on Health Policy Statistics

Organizer(s): Alexander R. de Leon, University of Calgary

Chair(s): Alexander R. de Leon, University of Calgary

8:35 a.m. **Do Prescription Drug Expenditures Have Cost-Offsets? A Panel Data Analysis Using Copulas—✱**Pravin K. Trivedi, Indiana University; David Zimmer, Western Kentucky University

8:55 a.m. **Modeling Count Data with Copulas: Shall We?—✱**Johanna Neslehova, ETH Zurich; Christian Genest, UniversitÈ Laval

9:15 a.m. **Efficient Bayesian Inference for Gaussian Copula Regression Models—✱**Michael K. Pitt, University of Warwick

9:35 a.m. Disc: K. C. Carriere, University of Alberta

9:55 a.m. Disc: David Zimmer, Western Kentucky University

10:15 a.m. **Floor Discussion**

349 CC-107

● Statistical Methods for Differential Equation Models—Topic-Contributed

Section on Physical and Engineering Sciences, IMS

Organizer(s): Hulin Wu, University of Rochester

Chair(s): Hulin Wu, University of Rochester

8:35 a.m. **Differential Equation Modeling of HIV Viral Fitness Experiments: Model Identification, Model Selection, and Multimodel Inference—✱**Hongyu Miao, University of Rochester; Hulin Wu, University of Rochester; Carrie Dykes, University of Rochester; Lisa M. Demeter, University of Rochester

8:55 a.m. **Inverse Modeling of Full-Waveform, Single-Well Geophysical Data Using a Bayesian Model and Markov Chain Monte Carlo Methods—✱**Jinsong Chen, Lawrence Berkeley National Laboratory; Thomas M. Daley, Lawrence Berkeley National Laboratory; Carlos Torres-Verdin, The University of Texas at Austin

9:15 a.m. **Data Mining Dynamical Systems: Automated Symbolic System Identification for Exploratory Analysis—✱**Michael D. Schmidt, Cornell University; Hod Lipson, Cornell University

9:35 a.m. **An Approximate Maximum Likelihood Method for Parameter and State Estimation in Continuous-Time Dynamic Models—✱**P. James McLellan, Queen's University; Saeed Varziri, Queen's University; Kim B. McAuley, Queen's University

9:55 a.m. Disc: James O. Ramsay, McGill University

10:15 a.m. **Floor Discussion**

350 CC-204
● Multimarker Analysis in Genetic Association Studies—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Editorial Board, WNAR, Biometrics Section

Organizer(s): Chuhsing K. Hsiao, National Taiwan University
Chair(s): Chuhsing K. Hsiao, National Taiwan University

8:35 a.m. **A Constrained Regression Approach for Studying Haplotype-Specific Effects—✱**Jung-Ying Tzeng, North Carolina State University; Howard Bondell, North Carolina State University

8:55 a.m. **Pathway-Based Analysis of Genomewide Association Studies—✱**Kui Zhang, The University of Alabama at Birmingham; Douglas K. Childers, The University of Alabama at Birmingham

9:15 a.m. **A Retrospective Method for Inference on Haplotype Main Effects and Haplotype-Environment Interactions Using Clustered Haplotypes—✱**Martha Jones, PRA International; Michael Epstein, Emory University; Glenn Satten, Centers for Disease Control and Prevention; Andrew Allen, Duke University Medical Center; Jung-Ying Tzeng, North Carolina State University

9:35 a.m. **Haplotype Associations When Functional Variation Is Only Partially Scored—✱**Dmitri Zaykin, National Institute of Environmental Health Sciences

9:55 a.m. **A New Support Vector Regression Approach to Gene Selection—✱**Pei-Chun Chen, National Taiwan University; Su-Yun Huang, Institute of Statistical Science, Acadamia Sinica; Chuhsing K. Hsiao, National Taiwan University

10:15 a.m. **Floor Discussion**

351 CC-112
▲ Statistical Literacy 2008—Topic-Contributed

Section on Statistical Education

Organizer(s): Milo Schield, W.M. Keck Statistical Literacy Project
Chair(s): Lawrence M. Lesser, The University of Texas at El Paso

8:35 a.m. **Interpreting the Substantive Significance of Multivariate Regression Coefficients—✱**Jane E. Miller, Rutgers, The State University of New Jersey

8:55 a.m. **Just Plain Data Analysis—✱**Gary Klass, Illinois State University

9:15 a.m. **Using Simulation To Teach Statistical Literacy—✱**Marc Isaacson, Augsburg College

9:35 a.m. **Numbers in the News: A Survey—**Milo Schield, W.M. Keck Statistical Literacy Project; ✱Robert L. Raymond, University of St Thomas

9:55 a.m. **Von Mises' Frequentist Approach to Probability—✱**Milo Schield, W.M. Keck Statistical Literacy Project; Tom Burnham, Cognitive Consulting

10:15 a.m. **Floor Discussion**

352 CC-113
● Design Issues for Conjoint Experiments—Topic-Contributed

Section on Statistics and Marketing

Organizer(s): Martina Vandebroek, Katholieke Universiteit Leuven
Chair(s): Martina Vandebroek, Katholieke Universiteit Leuven

8:35 a.m. **A Comparison of Bayesian Design Criteria—✱**Jie Yu, Katholieke Universiteit Leuven; Peter Goos, Universiteit Antwerpen; Zsolt Sándor, Universidad Carlos III Madrid; Martina Vandebroek, Katholieke Universiteit Leuven

8:55 a.m. **Adaptive Self-Explication of Multi-Attribute Preferences—✱**Oded Netzer, Columbia University; V. Seenu Srinivasan, Stanford University

9:15 a.m. **Designing Optimal Discrete Choice Experiments for Alternative-Specific Attributes—✱**Leonie Burgess, University of Technology, Sydney

9:35 a.m. **Efficient Experimental Designs for Hyperparameter Estimation: Studying the Level-Effect in Conjoint Analysis—✱**Qing Liu, University of Wisconsin-Madison; Angela M. Dean, The Ohio State University; David Bakken, Harris Interactive; Greg Allenby, The Ohio State University

9:55 a.m. **Optimality Criteria for Designs To Measure Accurately the WTP by Conjoint Choice Experiments—✱**Bart Vermeulen, K.U.Leuven; Peter Goos, Universiteit Antwerpen; Martina Vandebroek, Katholieke Universiteit Leuven

10:15 a.m. **Floor Discussion**

353 CC-710

● ▲ Recent Developments in Transportation Statistics—Topic-Contributed

Social Statistics Section, Section on Government Statistics, Section on Survey Research Methods

Organizer(s): Promod Chandhok, U.S. Department of Transportation

Chair(s): Michael P. Cohen, Statistical Consultant

8:35 a.m. **Variations in Effect Estimation Techniques To Assess Graduated Driver—✱**David M. Neyens, The University of Iowa; Birsen Donmez, Massachusetts Institute of Technology; Linda Boyle, The University of Iowa

8:55 a.m. **Quasi-Likelihood Generalized Linear Regression Analysis of Fatality Risk Data—✱**C. Craig Morris, Bureau of Transportation Statistics

9:15 a.m. **Estimating Nonresponse Bias in the Omnibus Household Survey—✱**Promod Chandhok, U.S. Department of Transportation

9:35 a.m. **Safety Analyses of Signalized Intersections Using Bayesian Hierarchical Spatial Models—✱**Feng Guo, Virginia Polytechnic Institute and State University; Xuesong Wang, University of Central Florida; Mohamed Abdel-Aty, University of Centraol Florida

9:55 a.m. **Analyzing Time Delay of Highway Construction Transportation Contracts: An Exploratory Study—✱**Abhishek Bhargava, Purdue University; Panagiotis Anastasopoulos, Purdue University; Fred Mannering, Purdue University; Kumares C. Sinha, Purdue University; Samuel Labi, Purdue University

10:15 a.m. **Floor Discussion**

Contributed Sessions 8:30 a.m.–10:20 a.m.

354 CC-601

● Variance Estimation—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Ismael Flores Cervantes, Westat, Inc.

8:35 a.m. **Single Phase Variance Estimation Approach to Two-Phase Designs—✱**Avinash C. Singh, Statistics Canada

8:50 a.m. **Some Notes on Cell Collapsing and Its Effect on Replicate Variance Estimates with the Delete-a-Group Jackknife Variance Estimator—✱**Katherine J. Thompson, U.S. Census Bureau; Samson Adeshiyan, U.S. Census Bureau

9:05 a.m. **Variance Estimation for an Estimator of Between-Year Change in Totals from Two Stratified Bernoulli Samples—✱**Kimberly A. Henry, Internal Revenue Service; Valerie L. Testa, Internal Revenue Service; Richard Valliant, The University of Michigan

9:20 a.m. **Variances for the American Community Survey 2005 Public Use Microdata Sample—✱**Sirius C. Fuller, U.S. Census Bureau; Anthony G. Tersine, Jr., U.S. Census Bureau

9:35 a.m. **Estimating Observation Outlyingness Using Statistical Distances in National Resources Inventory—✱**Jianqiang Wang, Iowa State University; Jean Opsomer, Colorado State University

9:50 a.m. **An Alternative to the Logit-Wald Method for Inference with Models for Proportions—**Avinash C. Singh, Statistics Canada; ✱Claude Nadeau, Statistics Canada

10:05 a.m. **Floor Discussion**

355 CC-704

● Weighting in Longitudinal and Multilevel Surveys—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Mandi Yu, The University of Michigan

8:35 a.m. **Creating Bootstrap Survey Weights When Only Limited Design Information Is Available: A Simulation Study—✱**Michael Wendt, Statistics Canada; David Paton, Statistics Canada

8:50 a.m. **Minimizing Conditional Global MSE for Health Estimates from the Behavioral Risk Factor Surveillance System for U.S. Counties Contiguous to the United States-Mexico Border—✱**Joe Fred Gonzalez, Jr., Centers for Disease Control and Prevention; Machell Town, Centers for Disease Control and Prevention; Jay J. Kim, National Center for Health Statistics

9:05 a.m. **Results from the 2006 Canadian Census Weighting Process—✱**Wesley Benjamin, Statistics Canada; Darryl Janes, Statistics Canada

9:20 a.m. **Changing the Weighting Approach of a Longitudinal Survey—✱**Michael Yang, ICF International; Yongyi Wang, National Opinion Research Center

9:35 a.m. **Response Patterns Among New Businesses—✱**Zhanyun Zhao, Mathematica Policy Research, Inc.; Frank Potter, Mathematica Policy Research, Inc.; Yuhong Zheng, Mathematica Policy Research, Inc.

9:50 a.m. **Multilevel Modeling in Large-Scale Assessments with Informative Sampling Weights—✱**Frank Jenkins, Westat, Inc.

10:05 a.m. **Weighting Methods in School-Based Surveys—✱**Ronaldo Iachan, Macro International; Pedro J. Saavedra, Macro International; James Ross, Macro International

356 CC-206

● Testing and Estimation—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Kiros Berhane, University of Southern California

8:35 a.m. **Three-Dimensional, Array-Based Group-Testing Algorithms—✱**Hae-Young Kim, New England Research Institutes; Michael Hudgens, The University of North Carolina at Chapel Hill

8:50 a.m. **A Hierarchical Latent Class Model for Evaluating Diagnostic Tests for Chlamydia Trachomatis in the Absence of a Gold Standard—✱**Liangliang Wang, The University of British Columbia; Nandini Dendukuri, McGill University; Alula Hadgu, Centers for Disease Control and Prevention

9:05 a.m. **Comparing Different Diagnostic Methods When Gold Standard Is Not Available—✱**Nong Shang, Centers for Disease Control and Prevention

9:20 a.m. **Transformation-Invariant and Nonparametric Monotone Smooth Estimation of ROC Curves—✱**Pang Du, Virginia Polytechnic Institute and State University; Liansheng Tang, George Mason University

9:35 a.m. **Assess the Diagnostic Accuracy of Sequential Screening Tests in a Multiphase Study of Dementia—✱**Binbing Yu, National Institute on Aging; Chuan Zhou, Vanderbilt University

9:50 a.m. **Generalized ROC Criterion for Multivariate Normally Distributed Biomarkers with Limits of Detection—✱**Neil J. Perkins, National Institute of Child Health and Human Development; Enrique F. Schisterman, National Institute of Child Health and Human Development; Albert Vexler, National Institute of Child Health and Human Development

10:05 a.m. **Estimates of Parameters in the Incidence Model for the Two Hospital Capture-Recapture Problem—✱**Lawrence Lessner, State University of New York at Albany

357 CC-701

Data Mining and Machine Learning—Contributed

Section on Statistical Computing

Chair(s): William D. Heavlin, Google, Inc.

8:35 a.m. **Contiguous Clustering of Temporal Data—✱**James A. Shine, U.S. Army Topographic Engineering Center; James E. Gentle, George Mason University

8:50 a.m. **Improving Identification of the Minority Class on Imbalanced Data Sets—✱**Chen-An Tsai, China Medical University; James J. Chen, National Center for Toxicological Research

9:05 a.m. **The Ensemble Tree—✱**J. Brian Gray, The University of Alabama; Jie Xu, The University of Alabama

9:20 a.m. **Generalized Reduced Error Logistic Regression Machine—✱**Daniel M. Rice, Rice Analytics

9:35 a.m. **Bonsai: Exploration and Cultivation of Machine Learning Models—✱**David Purdy, University of California, Berkeley; Daisy (Zhe) Wang, University of California, Berkeley

9:50 a.m. **Borrowing Strength in Time Series Data Mining—✱**Ganesh Subramaniam, AT&T Labs - Research; Ravi Varadhan, Johns Hopkins University

10:05 a.m. **Data Complexity and Classifier Performance—✱**Ana I. Landeros, The University of Alabama

358 CC-101
Financial and Economic Modeling—Contributed

Section on Risk Analysis

Chair(s): Mehmet Sahinoglu, Troy University Montgomery

8:35 a.m. **Percentile Estimators in Location-Scale Parameter Families Under Absolute Loss—✱**Jerome Keating, The University of Texas at San Antonio; Robert L. Mason, Southwest Research Institute; Narayanaswamy Balakrishnan, McMaster University

8:50 a.m. **Interval Estimation for the Largest Mean of a Multivariate Normal Population with Application to Mutual Fund Returns—✱**Hubert J. Chen, National Cheng Kung University

9:05 a.m. **Robust Neural Network with Application to Maturation Curve Estimation—✱**Yijia Feng, The Pennsylvania State University

9:20 a.m. **Risks Estimation in Economic Systems on the Basis of the Processing Approach—✱**Dmitry G. Morgunov, Novosibirsk State Technical University; Anatoly A. Naumov, Novosibirsk State Technical University

9:35 a.m. **Floor Discussion**

359 CC-105
Reliability and Censored Data Analysis—Contributed

Section on Quality and Productivity, Section on Physical and Engineering Sciences

Chair(s): Huaiyu Ma, GE Global Research

8:35 a.m. **Weekday Dependence in Reliability Analysis of Repairable Systems—✱**Alexandre Zolotovitski, Sun Microsystems, Inc.; David C. Trindade, Sun Microsystems, Inc.

8:50 a.m. **Estimation of Percentage of Defective Items in Quality Control—✱**Shui-Ching Chang, Overseas Chinese Institute of Technology; Tze Fen Li, Ming Dao University

9:05 a.m. **Mean Residual of Some Discrete Distributions—✱**Syed A. Hossain, Rider University; Mohammad Ahsanullah, Rider University; Syed N. Kirmani, University of Northern Iowa

9:20 a.m. **Estimating Performance Degradation Using Intervals Between Upcrossings of a Threshold—✱**Brock E. Osborn, GE Global Research; Thomas R. Willemain, Rensselaer Polytechnic Institute; Hui Fan, Moody's Investors Services; Pasquale Sullo, Rensselaer Polytechnic Institute

9:35 a.m. **A Method for Calculating Control Limits for Multiple Characteristics That Are Skewed and/or Detection Limit Censored—✱**Robert Brill, ICL Performance Products; Thomas J. Bzik, Air Products and Chemicals, Inc.

9:50 a.m. **Nonparametric Test Families for Highly Censored and/or Skewed Data—✱**Thomas J. Bzik, Air Products and Chemicals, Inc.; Robert Brill, ICL Performance Products

10:05 a.m. **Sequential Design for Analyses Involving Several Types of Data—✱**Christine Anderson-Cook, Los Alamos National Laboratory; Todd Graves, Los Alamos National Laboratory; Michael Hamada, Los Alamos National Laboratory

360 CC-705
Estimation Methods in Selected Nonparametric and Semiparametric Settings—Contributed

Section on Nonparametric Statistics, IMS

Chair(s): Jane L. Harvill, Baylor University

8:35 a.m. **Estimating Monotone Convex Functions via Sequential Shape Modification—✱**Sang Han Lee, Nathan Kline Institute; Johan Lim, Yonsei University; Seung-Jean Kim, Stanford University; Yongsung Joo, University of Florida

8:50 a.m. **Semiparametric Additive Isotonic Regression—✱**Guang Cheng, Statistical and Applied Mathematical Sciences Institute

9:05 a.m. **ANOVA for Semiparametric Models with Missing and Unbalanced Longitudinal Data—✱**Pingshou Zhong, Iowa State University; Song Xi Chen, Iowa State University

9:20 a.m. **On the Asymptotics of Additive Penalized Splines—✱**Yingxing Li, Cornell University; David Ruppert, Cornell University

9:35 a.m. **Parameter Estimation Under a Two-Sample Semiparametric Model—✱**Jingjing Wu, University of Calgary

9:50 a.m. **Revisiting Qualms About Bootstrap Confidence Intervals—✱**Michael R. Chernick, Smith Hanley Consulting Group

10:05 a.m. **Floor Discussion**

361 CC-707

▲ Developments in Nonparametric and Robust Time Series Analysis—Contributed

Section on Nonparametric Statistics, IMS

Chair(s): Michael Baron, The University of Texas at Dallas

8:35 a.m. **The Kernel Self-Normalized, Tail-Trimmed Sum for Dependent, Heterogeneous Data, with an Application to Robust Least Squares—✱**Jonathan B. Hill, The University of North Carolina at Chapel Hill

8:50 a.m. **Analyzing Bivariate Time Series via Nonparametric Likelihood—✱**Suddhasatta Acharyya, Brown University; Hernando Ombao, Brown University

9:05 a.m. **Consistent Nonparametric Tests for Granger Causality—**Yoshihiko Nishiyama, Kyoto University, Institute of Economic Research; Kohtaro Hitomi, Kyoto Institute of Technology; ✱Yoshinori Kawasaki, The Institute of Statistical Mathematics; Kiho Jeong, Kyungpook National University

9:20 a.m. **Spline-Backfitted Additive Nonparametric Transfer Function Models—✱**Jun Liu, Georgia Southern University

9:35 a.m. **Kernel Reweighting for Inference on Time Series—✱**Kristofer Jennings, Purdue University

9:50 a.m. **Testing for the Equality of Two Autoregressive Functions Using Quasi-Residuals—✱**Fang Li, Indiana University Purdue University, Indianapolis

10:05 a.m. **Local Linear Quantile Estimation for Nonstationary Time Series—✱**Zhou Zhou, The University of Chicago

362 CC-109

● ▲ Bayesian Design and Bayesian Methods for Poisson Data—Contributed

Section on Bayesian Statistical Science

Chair(s): Kristen Lennox, Texas A&M University

8:35 a.m. **The Impacts of Misclassification on Bayesian Adaptive Designs—✱**Jo A. Edmonds, The University of Kansas Medical Center; John W. Seaman, Jr., Baylor University; James Stamey, Baylor University

8:50 a.m. **Exact Bayesian Inference in Matched Pairs Designs—✱**Yong Chen, Johns Hopkins Bloomberg School of Public Health; Sining Chen, Johns Hopkins University; Haitao Chu, The University of North Carolina at Chapel Hill

9:05 a.m. **Bayesian Optimal Single Arrays for Robust Parameter Design—✱**Lulu Kang, Georgia Institute of Technology; Roshan J. Vengazhiyil, Georgia Institute of Technology

9:20 a.m. **Comparison of the Bayesian Prediction Limits for the Poisson Process—✱**Valbona Bejleri, University of the District of Columbia; Alexander White, Texas State University, San Marcos

9:35 a.m. **Characterizing the Performance of a Bayesian Conway-Maxwell GLM—✱**Seth D. Guikema, Johns Hopkins University; Srinivas Geedipally, Texas A&M University; Dominique Lord, Texas A&M University; Soma Dhavala, Texas A&M University

9:50 a.m. **Bayesian Detection of Changes of a Poisson Process Monitored at Discrete Time Points Where the Arrival Rates Are Unknown—✱**Marlo Brown, Niagara University

10:05 a.m. **Estimation of Web Page Change Rates—✱**Carrie Grimes, Google, Inc.; Daniel Ford, Google, Inc.

363 CC-202

Spatial Modeling and Related Computational Issues—Contributed

Biometrics Section, Section on Statistical Computing

Chair(s): Pingsheng Wu, Vanderbilt Univrsity Medical Center

8:35 a.m. **Joint Spatial Modeling of Recurrent Tree Infection and Growth with Processes Under Intermittent Observation—✱**Farouk S. Nathoo, University of Victoria

8:50 a.m. **An Approach to the Analysis of Spatially Correlated Multilevel Functional Data—**✱Ana-Maria Staicu, University of Bristol; Ciprian M. Crainiceanu, Johns Hopkins University; Raymond Carroll, Texas A&M University

9:05 a.m. **Bayesian Spatial Analysis of Sexual Behaviors Among HIV High-Risk Individuals in Sexual Networks—**✱Robin Jeffries, University of California, Los Angeles; Robert E. Weiss, University of California, Los Angeles; Pamina Gorbach, BERG; Steve Shoptaw, University of California, Los Angeles

9:20 a.m. **Fitting Regression Models of Propagation Type to the Boolean Random Set—**✱Khalil Shafie, University of Northen Colorado; Mojtaba Khazaee, Shahid Beheshti University; Mojtaba Ganjali, Shahid Beheshti University

9:35 a.m. **Why Do Ticks Like My Dog?—**✱Hyun-Joo Kim, Truman State University; Stephanie A. Fore, Truman State University; Laura J. Fielden-Rechav, Truman State University; Georgia Muller, Truman State University; Tad Dallas, Truman State University; Will Petry, Truman State University

9:50 a.m. **Bayesian Mixture Labeling by Posterior Modes—**✱Weixin Yao, Kansas State University; Bruce G. Lindsay, The Pennsylvania State University

10:05 a.m. **Numerical Identifiability and Convergence for Gibbs Sampling of Nonlinear Models—**✱Seongho Kim, Indiana University School of Medicine; Lang Li, Indiana University

364 CC-210
Econometric Time Series—Contributed

Business and Economics Statistics Section

Chair(s): Priya Kulkarni, Genentech, Inc.

8:35 a.m. **Test of Cointegration Using Long-Run Canonical Correlations: Part II—**✱Kalidas Jana, The University of Texas at Brownsville

8:50 a.m. **A Decomposition Approach to Revisions in Aggregated Time Series Estimates—**✱Duncan J. Elliott, The Office for National Statistics, UK; Craig H. McLaren, The Office for National Statistics, UK; Julian Chow, The Office for National Statistics, UK

9:05 a.m. **Forecasting Methods for GDP with Measurable Risks—**✱Les Yen, University of Phoenix/NVA; Eric Cramer, University of Phoenix

9:20 a.m. **From California to Connecticut: Examining House Price Models for the USA—**✱Chaitra Nagaraja, The Wharton School, University of Pennsylvania; Lawrence Brown, University of Pennsylvania

9:35 a.m. **Estimation and Inference in Unstable Models Estimated via Nonlinear Least Squares—**✱Otilia Boldea, Tilburg University; Alastair Hall, University of Manchester/North Carolina State University

9:50 a.m. **Nonlinear Dynamics and Persistence in PPP Relation: Does Controlling for Nonlinearity Solve the PPP Puzzle?—**✱Rehim Kilic, Georgia Institute of Technology

10:05 a.m. **Floor Discussion**

365 CC-108
Proteomics and Metabolomics—Contributed

Biometrics Section, Section on Nonparametric Statistics, WNAR

Chair(s): Katerina J. Kechris, University of Colorado Denver

8:35 a.m. **A Systematic Low-Level Analysis for Both SELDI- and MALDI-TF-MS Data with Improved Peak Alignment Algorithm—**✱Xuelian Wei, University of California, Los Angeles; Kerchau Li, University of California, Los Angeles; James LeBlanc, University of California, Los Angeles; Thomas Drake, University of California, Los Angeles

8:50 a.m. **Use of Left-Truncated Regression Models for Normalization of Global Mass Spectrometry Data—**✱Douglas W. Mahoney, Mayo Clinic College of Medicine; Christopher J. Malone, Winona State University; Ann L. Oberg, Mayo Clinic College of Medicine; Jeanette E. Eckel-Passow, Mayo Clinic College of Medicine; Terry M. Therneau, Mayo Clinic College of Medicine; H. Robert Bergen, III, Mayo Clinic College of Medicine

9:05 a.m. **A New Algorithm To Solve Protein Identification Problems in MS/MS Analysis—**✱Gabrila Cohen Freue, The University of British Columbia; Axel Bergman, Jack Bell Research Centre; Zsuzsanna Hollander, iCAPTURE; Robert Balshaw, iCAPTURE; Janet Wilson-McManus, iCAPTURE; Paul Keown, iCAPTURE; Bruce McManus, iCAPTURE; Robert McMaster, Jack Bell Research Centre; Raymond Ng, The University of British Columbia

9:20 a.m. **Multidimensional Biomolecular NMR Studies: Noise Reduction and Component Identification—✱**Nicoleta Serban, Georgia Institute of Technology

9:35 a.m. **Empirical Bayes Methods for Biomarker Identification in Metabolomics—✱**Cheng Zheng, Purdue University; Olga Vitek, Purdue University; Haiwei Gu, Purdue University; Zhengzheng Pan, Roche Diagnostics Co.; Daniel Raftery, Purdue University

9:50 a.m. **Statistical Analysis of Censored Proteomic Expression Data—✱**Shiying Wu, RTI International; James Stephenson, RTI International; Carol Whisnant, RTI International; Diane Wagener, RTI International

10:05 a.m. **Metabolic Profiling of Prostate Tissue Using the K-Means Cluster Analysis—✱**Helena Gurascier, University of California, San Francisco; Vickie Y. Zhang, University of California, San Francisco; Ying Lu, University of California, San Francisco; John Kurhanewicz, University of California, San Francisco

366 CC-201

● ▲ Bayesian Methods in Drug Development—Contributed

Biopharmaceutical Section, Section on Bayesian Statistical Science, Section on Health Policy Statistics, Biometrics Section

Chair(s): Kuenhi Tsai, Merck & Co., Inc.

8:35 a.m. **Clinical Trial Monitoring with Bayesian Hypothesis Testing—✱**John D. Cook, The University of Texas M.D. Anderson Cancer Center

8:50 a.m. **Bayesian Dose-Finding in Oncology for Drug Combinations by Copula Regression—✱**Ying Yuan, The University of Texas M.D. Anderson Cancer Center

9:05 a.m. **Bayesian Tests for Synergy in Three-Agent Combination Chemotherapy Treatments—✱**Melinda M. Holt, Sam Houston State University; Haunbiao Mo, Texas Woman's University

9:20 a.m. **A Flexible Class of Models for Data Arising from a 'Thorough QT/QTc Study'—✱**Suraj P. Anand, North Carolina State University; Sujit Ghosh, North Carolina State University

9:35 a.m. **Prior Estimation for Empirical Bayes Binomial Models—✱**Boris G. Zaslavsky, U.S. Food and Drug Administration

9:50 a.m. **Floor Discussion**

367 CC-212

Transportation, Visualization, Equity Premium Forecasting, IT, and Structural Breaks—Contributed

Business and Economics Statistics Section, Section on Statistical Graphics

Chair(s): Natalya Verbitsky, Mathematica Policy Research, Inc.

8:35 a.m. **Estimation of Structural Breaks in Nonstationary Time Series: The Theory Behind AutoPARM—✱**Stacey Hancock, Colorado State University; Richard A. Davis, Columbia University; Yi-Ching Yao, Institute of Statistical Science, Academia Sinica

8:50 a.m. **Sequential Sampling for Pricing Consistency of Enterprise IT Solutions with Attached Services—✱**Jerry Shan, Hewlett-Packard Company

9:05 a.m. **Communicating Quantitative Information Through Visualization—✱**Krista L. Olson, BAE Systems

9:20 a.m. **A Statistical Analysis of Ambulance Travel Times—✱**Dawit Zerom, Mihaylo College of Business and Economics

9:35 a.m. **Modeling of Strategic Planning Related to Land Use—✱**Chandra Aleong, Delaware State University; J. Aleong, University of Vermont

9:50 a.m. **Estimation and Comparative Analysis of Departure Delays for Better Decisionmaking—✱**Yufeng Tu, University of Maryland/Touro Univerisity

10:05 a.m. **Out-of-Sample Equity Premium Prediction: Consistently Beating the Historical Average—✱**Guofu Zhou, Washington University; David Rapach, Saint Louis University; Jack Strauss, Saint Louis University

Invited Poster Presentations 8:30 a.m.–10:20 a.m.

368 CC-F Lobby

Invited Poster Presentations: Modeling in Ecology—Invited

Section on Statistics and the Environment

Organizer(s): Mevin B. Hooten, Utah State University

Chair(s): John Castelloe, SAS Institute Inc.

Modeling in Ecology

01 **A Hierarchical Bayesian Modeling Approach for Analysis of Large River Fish Movement Data—✱**Ali Arab, Georgetown University; Christopher Wikle, University of Missouri-Columbia; Mark Wildhaber, U.S. Geological Survey; Aaron Delonay, U.S. Geological Survey

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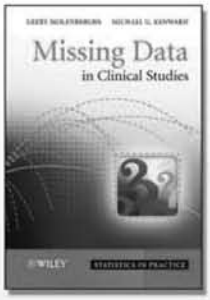
The R Book

Michael J. Crawley

9780470510247 • Cloth • 950pp • $110.00 • Jun 2007

"The High-level software language of R is setting standards in quantitative analysis. And now anybody can get to grips with it thanks to The R Book…"
–Professional Pensions

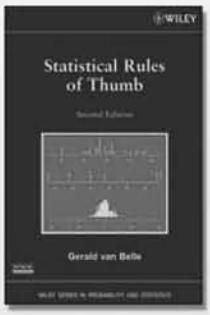


Missing Data in Clinical Studies

Geert Molenberghs, Michael Kenward

9780470849811 • Cloth • 526pp • $110.00 • Apr 2007

"The authors give key examples in the form of several clinical trials and their analyses using the appropriate remedial techniques."
–Journal of Tropical Pediatrics



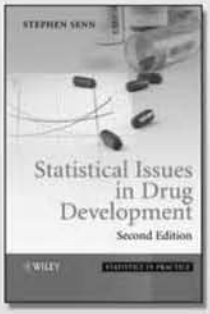
Statistical Rules of Thumb, 2nd Edition

New Edition

Gerald van Belle

9780470144480 • Paper • 312pp • $54.95 • Jul 2008

Praise for the First Edition, "...great reading...a thought-provoking book...strongly encourage statisticians and researchers to have Statistical Rules of Thumb handy..."
–The American Statistician



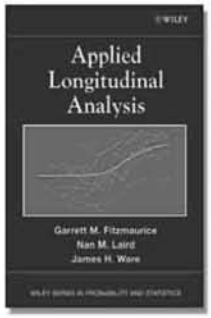
Statistical Issues in Drug Development, 2nd Edition

New Edition

Stephen Senn

9780470018774 • Cloth • 524pp • $130.00 • Feb 2008

This book presents an essential and thought provoking guide to the statistical issues and controversies involved in drug development.



Applied Longitudinal Analysis

Garrett M. Fitzmaurice, Nan M. Laird, James H. Ware

9780471214878 • Cloth • 536pp • $121.95 • Jun 2004

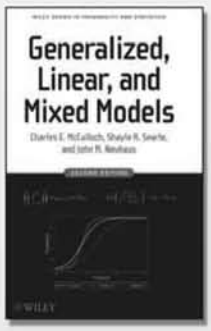
"...should be on the shelf of everyone interested in acquiring a modeler's or practitioner's perspective on longitudinal data analysis."
–Journal of the American Statistical Association

Common Errors in Statistics (and How to Avoid Them), 2nd Edition

Phillip I. Good, James W. Hardin

9780471794318 • Paper • 272pp • $79.50 • Apr 2006

"...a concise guide to the basics of statistics, replete with examples, explaining in common language...a valuable reference for more advanced statisticians as well..."
–MAA Reviews



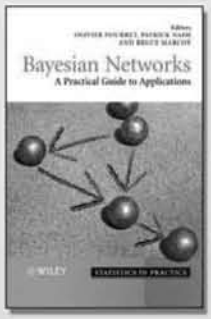
Generalized Linear and Mixed Models, 2nd Edition

New Edition

Charles E. McCulloch, Shayle R. Searle, John M. Neuhaus

9780470073711 • Cloth • 424 pp • $99.95 • Jun 2008

Praise for the first edition, "I strongly recommend… [it] for inclusion in math and statistics libraries and in the personal libraries of professional statisticians."
–Journal of the American Statistical Association



Bayesian Networks: A Practical Guide to Applications

New Edition

Olivier Pourret, Patrick Naïm, Bruce Marcot

9780470060308 • Cloth • 446pp • $110.00 • May 2008

This book provides, for the first time, a focus on guidelines and the applications of Bayesian Belief Networks in a variety of real world examples, ranging from finance and engineering, to internet security and robotics.

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02 **Data-Model Integration for Forest Dynamics—**✱Jarrett J. Barber, University of Wyoming; Kiona Ogel, University of Wyoming; Darren E. Gemoets, University of Wyoming

03 **Modeling Marine Mammal Movement Data—**✱Devin Johnson, National Marine Mammal Laboratory; Carey Kuhn, National Marine Mammal Laboratory

04 **Hard Core or Soft Core: On the Characterization of Animal Space Use—**✱Mevin B. Hooten, Utah State University; Ryan Wilson, Utah State University; John A. Shivik, Utah State University

05 **Hierarchical Models for the Estimation of Manatee Abundance from Aerial Surveys—**✱Robert M. Dorazio, U.S. Geological Survey/University of Florida

06 **Bayesian Hierarchical Models for the Lower Trophic Ecosystem in the North Pacific Ocean—**✱Christopher Wikle, University of Missouri-Columbia; Ralph Milliff, Northwest Research Associates, Inc.

Contributed Poster Presentations 8:30 a.m.–10:20 a.m.

369 CC-F Lobby

Contributed Poster Presentations—Contributed

Biometrics Section, IMS, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Quality and Productivity, Section on Statistical Computing, Section on Statistical Education

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Bootstrap, resampling methods

07 **A Step-Down Pairwise Comparison Procedure Using Medians and Permutation Tests—**✱Scott Richter, The University of North Carolina, Greensboro; Melinda McCann, Oklahoma State University

08 **Using the Bootstrap To Select Active Factors in Unreplicated Factorial Experiments—**✱Gerald Shaughnessy, University of Dayton; Maher Qumsiyeh, Bethlehem University

09 **Using a Mark-Recapture Experiment To Illustrate Methods of Point and Interval Estimation—**✱Carlo Cosenza, California State University, East Bay; Joshua Kerr, California State University, East Bay; Bruce Trumbo, California State University, East Bay

Computational statistics, numerical methods, simulation

10 **An Algorithm for Unconstrained Quadratically Penalized Convex Optimization—**✱Steven P. Ellis, Columbia University

11 **Numerical Error in ODEs—**✱Clyde Martin, Texas Tech University; Bo He, Texas Tech University

12 **Differences in Computations of Sample Quantiles—**✱Michael Joner, The Procter & Gamble Company; Eugene Shine, Savannah River National Laboratory

13 **Asymptotic Expansions in Mean and Covariance Structure Analysis—**✱Haruhiko Ogasawara, Otaru University of Commerce

14 **A Comparison of Two Boxplot Methods for Detecting Outliers That Adjust for Sample Size and, When Appropriate, for Asymmetry—**✱Nancy J. Carter, California State University, Chico; Neil C. Schwertman, California State University, Chico; Terry L. Kiser, California State University, Chico

15 **Parallel Processing in Artificial Intelligence—**✱Morteza Marzjarani, Saginaw Valley State University; Joshua Urbain, Saginaw Valley State University; Joshua Cieszlak, Saginaw Valley State University

16 **Entropy Estimation of Multimodal Circular Distributions—**✱Shengqiao Li, Centers for Disease Control and Prevention; Robert Mnatsakanov, Centers for Disease Control and Prevention; Adam Fedorowicz, Centers for Disease Control and Prevention; Michael E. Andrew, National Institute for Occupational Safety and Health

17 **Exact Bounds on the Probability That One Variable Exceeds Another—**✱Robert Lew, VA Boston Healthcare System

18 **Constrained Maximum Likelihood Estimation for Logistic Regression—**Martin Levy, Universtiy of Cincinnati; ✱ZhiYuan Dong, Universtiy of Cincinnati; Yan Yu, Universtiy of Cincinnati; Tim Keyes, GE Capitol

19 **Determining Minimum Sample Sizes To Achieve Central Limit Theorem Closeness When Sampling from Various Populations—**Jamis Perrett, Texas A&M University; ✱Steve Hoff, University of Northern Colorado

Pattern recognition, computer vision, shape analysis, signal processing

20 **Classification of Closed Contours—**✱Fu-Chih Cheng, North Dakota State University

21 **An Artificial Immune Network–Based Classification Approach to ECG Monitoring Applications—**Honggang Wang, University of Nebraska-Lincoln; ✱Hua Fang, University of Nebraska-Lincoln

Semiparametric and nonparametric methods

22 **Using Semiparametric Varying Coefficient Models To Investigate Interactions of Toxic Exposure and Nutritional Covariates in a Study of Neurodevelopmental Outcomes—✱**Miranda L. Lynch, University of Rochester; Li-Shan Huang, University of Rochester

23 **Performance of Some Statistical Methods for Testing Equality of Parameters in Zero-Inflated Continuous Distributions—✱**Lei Zhang, Mississippi State Department of Health; William D. Johnson, Lousiana State University System; Jixiang Wu, Mississippi State University

24 **Semiparametric Inference of Linear Transformation Models with Length-Biased Censored Data—✱**Jane Paik, Columbia University; Zhiliang Ying, Columbia University

25 **A Distribution-Free, One-Sample Test for Equivalence—✱**Jesse Frey, Villanova University

26 **A Nonparametric Version of the Multivariate Likelihood Ratio Test (Wilks Lambda)—✱**Chunxu Liu, University of Kentucky; Arne Bathke, University of Kentucky

27 **The Rank Transforms and Tests of Interaction for Repeated Measures Experiments with Various Covariance Structures—✱**Jennifer Bryan, Oklahoma Christian University; Mark E. Payton, Oklahoma State University

28 **Testing the Structure of a Covariance Matrix—✱**Tracy Morris, University of Central Oklahoma; Mark E. Payton, Oklahoma State University

29 **Nonparametric Estimation of Copula Density Functions—✱**Wenhao Gui, Florida State University

30 **Ordered Inference Using Observed Confidence Levels—✱**Alan M. Polansky, Northern Illinois University

31 **Adaptive Quasi-Monte Carlo Sampling: Construction and Applications—✱**Ben Haaland, University of Wisconsin-Madison; Zhiguang (Peter) Qian, University of Wisconsin-Madison

32 **Separating Borrowing Information and Forming Contrasts: Nonparametric Inference for Arbitrary Functionals of Survival—✱**Kyle Rudser, University of Washington; Scott S. Emerson, University of Washington; M. L. LeBlanc, Fred Hutchinson Cancer Research Center

Invited Sessions 10:30 a.m.–12:20 p.m.

370 CC-708

● The Analysis of Wikipedia Data—Invited

Section on Statistical Computing

Organizer(s): David Banks, Duke University

Chair(s): Eric Vance, Duke University

10:35 a.m. **Wikipedia as a Model for ASA Journals—✱**David Banks, Duke University

11:00 a.m. **Quality Assurance in Information Submissions: The Case of Wikipedia—✱**Robert Warren, University of Waterloo

11:25 a.m. **Can Statistical Learning Sustain Wikipedia's Model of Growth?—✱**Edo Airoldi, Princeton University

11:50 a.m. Disc: Deepak Agarwal, Yahoo! Research

12:10 p.m. **Floor Discussion**

371 CC-601

● ▲ The State of Statistics Education in Schools (K–12) Around the World—Invited

International Association for Statistical Education, Section on Statistical Education

Organizer(s): Juana Sanchez, University of California, Los Angeles; Allan Rossman, California Polytechnic State University

Chair(s): Tim Hesterberg, Google, Inc.

10:35 a.m. **GAISEing into the Future in New Zealand—✱**Chris J. Wild, University of Auckland; Nicholas J. Horton, Smith College

11:00 a.m. **Efforts of Government Statistical Agencies Across the World to Complement School Curricula—✱**Mary Townsend, Statistics Canada

11:25 a.m. **How Can IASE Have an Impact on Statistics Education in Schools?—✱**Larry Weldon, Simon Fraser University

11:50 a.m. Disc: Richard Scheaffer, University of Florida

12:10 p.m. **Floor Discussion**

372 CC-702
Noether Award Invited Session—Invited

Noether Award Committee, Section on Nonparametric Statistics

Organizer(s): Carlos J. Morales, Wellington Management Company

Chair(s): Carlos J. Morales, Wellington Management Company

10:35 a.m. **A New Approach to R-Estimation—✱**Davy Paindaveine, UniversitÈ Libre de Bruxelles; Marc Hallin, UniversitÈ Libre de Bruxelles

11:20 a.m. **Conditional U-Statistics with Applications in Discriminant Analysis, ARMA Processes, and Hidden Markov Models—✱**Madan Puri, Indiana University

12:05 p.m. **Floor Discussion**

373 CC-207
● ▲ The Role of Statisticians in Understanding Climate Change—Invited

Section on Statistics and the Environment, Scientific and Public Affairs Advisory Committee, WNAR, Chance

Organizer(s): David A. Marker, Westat, Inc.

Chair(s): Peter Bloomfield, North Carolina State University

10:35 a.m. **The ASA-Sponsored Workshop on Climate Change—✱**David A. Marker, Westat, Inc.

11:00 a.m. **Democracy vs. Aristocracy in Model Projections for Climate Change—✱**Claudia Tebaldi, National Center for Atmospheric Research

11:25 a.m. **Where Are Statisticians in the Earth System?—✱**Doug Nychka, National Center of Atmospheric Research

11:50 a.m. Disc: Mary C. Christman, University of Florida

12:10 p.m. **Floor Discussion**

374 CC-108
● Measuring Health Care Disparities—Invited

Social Statistics Section, Section on Government Statistics, WNAR, Section on Health Policy Statistics, Section on Statistics in Epidemiology

Organizer(s): Joseph Gastwirth, The George Washington University

Chair(s): Qing Pan, The George Washington University

10:35 a.m. **Understanding Disparities Within and Among Geographical and Health Care Units—✱**Alan Zaslavsky, Harvard University Medical School

11:00 a.m. **Application of the Peters-Belson Method for Estimating Disparities—✱**Barry I. Graubard, National Cancer Institute; Sowmya R. Rao, MGH Biostatistics Center/The Institute for Health Policy; Joseph Gastwirth, The George Washington University

11:25 a.m. **Improved Analysis of Weight-Loss Interventions for African-American Women—✱**Justine Shults, University of Pennsylvania; Xiaoying Wu, University of Pennsylvania; Shiriki Kumanyika, University of Pennsylvania

11:50 a.m. **Empirical Likelihood Method for Determining Nonparametric Spirometry Reference Values for Hispanic Americans—✱**Nancy L. Glenn, Texas Southern University

12:15 p.m. **Floor Discussion**

375 CC-111
● ▲ Recent Development in Event History Data Analysis—Invited

SSC, Biopharmaceutical Section, WNAR

Organizer(s): Joan Hu, Simon Fraser University

Chair(s): Joan Hu, Simon Fraser University

10:35 a.m. **Variance Estimation in Semiparametric Models with Censored Data—✱**Zhezhen Jin, Columbia University

11:05 a.m. **Modeling and Analyzing Data on Recurrent and Terminal Events—✱**John Kalbfleisch, The University of Michigan

11:35 a.m. **Evaluation of Treatment Effects with Recurrent Events Under Dependent Censoring—✱**Richard Cook, University of Waterloo; Jerald Lawless, University of Waterloo

12:05 p.m. **Floor Discussion**

376 CC-103

● Bayesian Methods for Medical and Epidemiologic Studies—Invited

WNAR, Section on Bayesian Statistical Science, Section on Statistics in Epidemiology, Biometrics Section

Organizer(s): Wesley O. Johnson, University of California, Irvine

Chair(s): Wesley O. Johnson, University of California, Irvine

10:35 a.m. **A Bayesian Hidden Markov Model for Motif Discovery Through Joint Modeling of Genomic Sequence and ChIP-Chip Data—✱**Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Jon A.L. Gelfond, The University of Texas Health Science Center at San Antonio; Mayetri Gupta, Boston University

11:05 a.m. **Empirical Bayes-Type Shrinkage Estimation in Genetic Epidemiology—✱**Bhramar Mukherjee, The University of Michigan; Nilanjan Chatterjee, National Cancer Institute

11:35 a.m. **Applying Bayesian Ideas in a Multisite fMRI Study—✱**Hal Stern, University of California, Irvine

12:05 p.m. **Floor Discussion**

377 CC-113

● Dynamic Factor Models for Real-Time Macroeconomic and Financial Forecasting—Invited

Business and Economics Statistics Section

Organizer(s): Peter Zadrozny, Bureau of Labor Statistics

Chair(s): Stuart Scott, Bureau of Labor Statistics

10:35 a.m. **Modeling High-Dimensional Time Series by Generalized Linear Dynamic Factor Models—✱**Manfred Deistler, Vienne University of Technology

10:55 a.m. **Factor Decomposition of VARMA Models Based on Weighted Forecast-Error Covariances: Applied to Forecasting Quarterly GDP at Monthly Intervals—✱**Peter Zadrozny, Bureau of Labor Statistics; Baoline Chen, Bureau of Economic Analysis

11:15 a.m. **Monthly Real-Time Estimates of Final GDP Based on an Estimated Monthly Model of Initial and Revised GDP—✱**Baoline Chen, Bureau of Economic Analysis; Peter Zadrozny, Bureau of Labor Statistics

11:35 a.m. **Nowcasting UK GDP Growth: An Evaluation of Dynamic Factor Models Using Quasi Real-Time Data—✱**Jana Eklund, Bank of England; Kamath Kishore, Bank of England; Vincent Labhard, European Central Bank; Simon Price, Bank of England

11:55 a.m. **NOWcasting Quarterly German GDP at Monthly Intervals Using Dynamic Factor Models—✱**Klaus Wohlrabe, Ifo Institute for Economic Research

12:15 a.m. **Floor Discussion**

378 CC-703

● ▲ Predicting Cancer Risk Using Flexible Methods—Invited

Section on Risk Analysis, Section on Statistics in Epidemiology, WNAR, Section on Health Policy Statistics

Organizer(s): Amy H. Herring, The University of North Carolina at Chapel Hill

Chair(s): Amy H. Herring, The University of North Carolina at Chapel Hill

10:35 a.m. **Risk Prediction in Hereditary Cancer Syndromes—✱**Sining Chen, Johns Hopkins University; Giovanni Parmigiani, Johns Hopkins University; Yue Yin, Genentech, Inc.; Wenyi Wang, University of California, Berkeley; Patrice Watson, Creighton University; Henry T. Lynch, Creighton University

11:05 a.m. **A Colorectal Cancer Risk Prediction Tool—✱**Ruth Pfeiffer, National Cancer Institute

11:35 a.m. **Building Cancer Risk Models Using Multifarious Complex Data Sources: Exploiting the Elegance of Bayes—✱**Donald A. Berry, The University of Texas M.D. Anderson Cancer Center

12:05 p.m. **Floor Discussion**

379 CC-102

● ▲ A New Paradigm of Statistical Data Analysis: 'Omics' Data—Invited

Biometrics Section, Biopharmaceutical Section, WNAR

Organizer(s): Susmita Datta, University of Louisville

Chair(s): Somnath Datta, University of Louisville

10:35 a.m. **Reverse Engineering To Construct Protein-Protein Interaction Network—✱**Susmita Datta, University of Louisville; Vasyl Pihur, University of Louisville; Somnath Datta, University of Louisville

11:00 a.m. **Using 'Intelligent Systems' for Predicting Protein Function and Selecting Targets for Structural Genomics—✱**Rajesh Nair, Columbia University; Burkhard Rost, Columbia University

11:25 a.m. **Regularization and Variable Selection for Data with Interdependent Structures—✱**Jun Xie, Purdue University; Lingmin Zeng, Purdue University

11:50 a.m. **Statistical Proteomics Initiative: Research Initiative for Proteomics Sequence Analysis—✱**Martin McIntosh, Fred Hutchinson Cancer Research Center; Olga Vitek, Purdue University

12:15 p.m. **Floor Discussion**

Invited Panel 10:30 a.m.–12:20 p.m.

380 CC-205

● ▲ *The Black Swan*: A Discussion—Invited

The American Statistician

Organizer(s): Peter Westfall, Texas Tech University

Chair(s): Peter Westfall, Texas Tech University

Panelists: ✱Aaron Brown, AQR Capital Management

✱Robert Lund, Clemson University

✱Nassim N. Taleb, Self-Employed

✱S. Stanley Young, National Institute of Statistical Sciences

✱Donald B. Rubin, Harvard University

12:15 p.m. **Floor Discussion**

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

381 CC-110

● Paradata, Data Quality, and the National Health Interview Survey (NHIS)—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): James M. Dahlhamer, National Center for Health Statistics

Chair(s): Jane F. Gentleman, National Center for Health Statistics

10:35 a.m. **Analyzing Field Notes Systematically To Better Understand Respondent Participation—**Barbara Stussman, National Center for Health Statistics; ✱Catherine Simile, National Center for Health Statistics

10:55 a.m. **Do You Really Mean What You Say? Doorstep Concerns and Data Quality in the National Health Interview Survey (NHIS)—✱**James M. Dahlhamer, National Center for Health Statistics; Catherine Simile, National Center for Health Statistics; Beth Taylor, National Center for Health Statistics

11:15 a.m. **The 2006 National Health Interview Survey Paradata File: Overview and Applications—✱**Beth Taylor, National Center for Health Statistics

11:35 a.m. **An Exploration into the Use of Paradata for Nonresponse Adjustment in a Health Survey—✱**Aaron Maitland, National Center for Health Statistics; Carolina Casas-Cordero, University of Maryland, College Park; Frauke Kreuter, University of Maryland, College Park

11:55 a.m. Disc: James Lepkowski, The University of Michigan

12:15 p.m. **Floor Discussion**

382 CC-212

▲ What Can SPAIG Do for You?—Topic-Contributed

SPAIG Committee, Section on Physical and Engineering Sciences

Organizer(s): Morteza Marzjarani, Saginaw Valley State University

Chair(s): Morteza Marzjarani, Saginaw Valley State University

10:35 a.m. **SPAIG Activities at Iowa State University—✱**Dean L. Isaacson, Iowa State University

10:55 a.m. **University-Industry Demonstration Partnership—**Robert Starbuck, Wyeth Research; ✱Anthony Boccanfuso, The National Academy of Sciences

11:15 a.m. **Summary of Recent Salary Surveys of Statisticians—✱**Boris Iglewicz, Temple University

11:35 a.m. **Strategic Partnerships and the ASA—✱**Ron Wasserstein, The American Statistical Association

11:55 a.m. **Partnerships with Nonprofit Research Institutions—✱**Sally C. Morton, RTI International

12:15 p.m. **Floor Discussion**

383 CC-106

● Novel Analyses of Large Nonrandomized Data Sets To Improve Policymaking in Health and Medicine—Topic-Contributed

Section on Health Policy Statistics, Section on Statistical Computing, Social Statistics Section

Organizer(s): Marc N. Elliott, RAND Corporation

Chair(s): Katrin Hambarsoomians, RAND Corporation

10:35 a.m. **Geographic Area Variations in the Medicare Health Plan Era—✱**Patricia Keenan, Yale School of Public Health; A. James O'Malley, Harvard Medical School; Bruce Landon, Harvard Medical School; Paul Cleary, Yale School of Public Health; Lawrence Zaborski, Harvard Medical School; Alan Zaslavsky, Harvard University Medical School

10:55 a.m. **Selection into Medicare Coverage: Propensity Scores, Multiple Treatments, and Comparisons of Beneficiary Evaluations of Care—✱**Amelia Haviland, RAND Corporation; Marc N. Elliott, RAND Corporation; Katrin Hambarsoomians, RAND Corporation

11:15 a.m. **Comparing Additive and Hierarchical Classifications of Race/Ethnicity with Respect to Evaluations of Care—✱**David Klein, RAND Corporation; Marc N. Elliott, RAND Corporation; Amelia Haviland, RAND Corporation

11:35 a.m. **Improving Subgroup Comparisons of Consumer Reports by Adjusting for Differences in Extreme Response Tendency—✱**Marc N. Elliott, RAND Corporation; Amelia Haviland, RAND Corporation; David Kanouse, RAND Corporation; Katrin Hambarsoomians, RAND Corporation

11:55 a.m. **Comparing Traditional Instrumental Variables Estimation to Parametric Modeling of a Problem in Health Policy—✱**A. James O'Malley, Harvard Medical School; Sharon-Lise Normand, Harvard Medical School; Richard Frank, Harvard Medical School

12:15 p.m. **Floor Discussion**

384 CC-104

● ▲ Statistical Issues of Thorough QT/QTc Studies in Clinical Trials—Topic-Contributed

Biopharmaceutical Section, Biometrics Section

Organizer(s): Yi Tsong, U.S. Food and Drug Administration

Chair(s): Mark Levenson, U.S. Food and Drug Administration

10:35 a.m. **New Methods on QT Correction—✱**Bin Cheng, Columbia University

10:55 a.m. **Exploration of Covariance Structure for TQT Study—✱**Xiaodong Li, Merck & Co., Inc.

11:15 a.m. **Statistical Issues of QT Prolongation Assessment Based on Linear Concentration Modeling—✱**Yi Tsong, U.S. Food and Drug Administration; Meiyu Shen, U.S. Food and Drug Administration; Zhong Jinglin, U.S. Food and Drug Administration; Joanne Zhang, U.S. Food and Drug Administration

11:35 a.m. Disc: Joanne Zhang, U.S. Food and Drug Administration

12:15 p.m. **Floor Discussion**

385 CC-101

Causal Inference: Advances and Applications—Topic-Contributed

Biometrics Section, Section on Nonparametric Statistics, Biopharmaceutical Section, Section on Bayesian Statistical Science, Section on Health Policy Statistics

Organizer(s): Jing Cheng, University of Florida

Chair(s): Ben Hansen, The University of Michigan

10:35 a.m. **Semiparametric Estimation and Inference for Distributional and General Treatment Causal Effects—✱**Jing Cheng, University of Florida; Jing Qin, National Institute of Allergies and Infectious Diseases; Biao Zhang, The University of Toledo

10:55 a.m. **Understanding Mediation Using Principal Stratification—✱**Michael R. Elliott, The University of Michigan; Trivellore Raghunathan, The University of Michigan

11:15 a.m. **An Integrated Nonparametric Approach to Missing Data in Causal Inference—✱**Jennifer Hill, Columbia University; Robert McCulloch, The University of Chicago

11:35 a.m. **Deconfounding Small Quasi-Experiments Using Propensity Scores and Other Dimension Reduction Techniques—✱**Yevgeniya Kleyman, The University of Michigan; Ben Hansen, The University of Michigan

11:55 a.m. **The Malaria Attributable Fraction: Definition, Inference, and Sensitivity Analysis—✱**Dylan Small, University of Pennsylvania

12:15 p.m. **Floor Discussion**

386 CC-709

● ▲ Recent Development of Bayesian Methods for Missing Data—Topic-Contributed

Section on Bayesian Statistical Science, Section on Survey Research Methods, Section on Health Policy Statistics

Organizer(s): Ming-Hui Chen, University of Connecticut

Chair(s): Ming T. Tan, University of Maryland Greenebaum Cancer Center

10:35 a.m. **Diagnostic Measures for Generalized Linear Models with Missing Covariates—✱**Hongtu Zhu, The University of North Carolina at Chapel Hill; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Xiaoyan Shi, The University of North Carolina at Chapel Hill

10:55 a.m. **An Exact Noniterative Sampling Procedure for Discrete Missing Data Problems—✱**Guo-Liang Tian, University of Maryland Greenebaum Cancer Center; Kai Wang Ng, The University of Hong Kong; Ming T. Tan, University of Maryland Greenebaum Cancer Center

11:15 a.m. **Bayesian Variable Selection for Modeling Repeated Binary Responses and Time-Dependent Missing Covariates—✱**Fang Yu, University of Nebraska; Ming-Hui Chen, University of Connecticut; Lan Huang, National Cancer Institute; Gregory J. Anderson, University of Connecticut

11:35 a.m. **A Joint Modeling Approach to Repeated Measures of Mixed Data Types—✱**W. John Boscardin, University of California, Los Angeles; Xiao Zhang, The University of Alabama at Birmingham; Tom Belin, University of California, Los Angeles

11:55 a.m. **Bayesian Structural Equations Models for Longitudinal Surveys Data with Missing Responses and Covariates—✱**Ming-Hui Chen, University of Connecticut; Sonali Das, The Council for Scientific and Industrial Research; Sung Duk Kim, National Institute of Child Health and Human Development; Nicholas Warren, University of Connecticut Health Center

12:15 p.m. **Floor Discussion**

387 CC-704

L-Moments: Recent Developments in Theory and Applications—Topic-Contributed

Section on Nonparametric Statistics, IMS

Organizer(s): Jonathan Hosking, IBM T. J. Watson Research Center

Chair(s): Robert Serfling, The University of Texas at Dallas

10:35 a.m. **Parameter Estimation for General Univariate Distributions Using the Method of L-Moments—✱**Jonathan Hosking, IBM T. J. Watson Research Center

10:55 a.m. **Algorithms and Results for a CPU-Intensive, L-Moment-Based Approach Using R for Regionalized Flood Estimation in Texas—✱**William H. Asquith, U.S. Geological Survey

11:15 a.m. **Improving Probability-Weighted Moment Methods for the Generalized Extreme Value Distribution—✱**Armelle Guillou, UniversitÈ de Strasbourg 1, IRMA; Jean Diebolt, UniversitÈ de Marne-La-VallÈe; Philippe Naveau, Laboratoire des Sciences du Climat et de l'Environnement; Pierre Ribereau, UniversitÈ de Montpellier

11:35 a.m. **Multivariate Extension of L-Moments via L-Comoments and Applications—✱**Peng Xiao, East Carolina University; Robert Serfling, The University of Texas at Dallas

11:55 a.m. Disc: H.N. Nagaraja, The Ohio State University

12:15 p.m. **Floor Discussion**

388 CC-705

● ▲ Where Training Diverges: Nontraditional Paths to Statistical Consulting—Topic-Contributed

Section on Statistical Consulting

Organizer(s): Dale Glaser, Glaser Consulting/SDSU/AIU/USD

Chair(s): Carmen Radecki-Breitkopf, The University of Texas Medical Branch

10:35 a.m. **Application of Statistics and Measurement in the Social Sciences—✱**Dale Glaser, Glaser Consulting/SDSU/AIU/USD

10:55 a.m. **The Best of Both Worlds: Medical Science and Statistics—✱**Nicole Close, EmpiriStat, Inc.

11:15 a.m. **Psychological Scientist and Statistical Consultant: Developing and Maintaining a Dual-Career Identity—✱**Todd Bodner, Portland State University/Elenchus, Inc.

11:35 a.m. **Rounding Out the Numbers: Mixed Methods in Public Health Investigations—✱**Lillian S. Lin, Centers for Disease Control and Prevention; Kimberlee Elmore, Centers for Disease Control and Prevention; Jennifer Galbraith, Centers for Disease Control and Prevention; Thomas M. Painter, Centers for Disease Control and Prevention

11:55 a.m. **Statistical Consulting in Natural Resource Management—✱**Albert N. Hendrix, R2 Resource Consultants, Inc.

12:15 a.m. **Floor Discussion**

389 CC-203

● ▲ Counting the Dead in Iraq—Topic-Contributed

Section on Statistics in Epidemiology, Section on Nonparametric Statistics, Section on Statisticians in Defense and National Security, Section on Survey Research Methods, Social Statistics Section, Scientific and Public Affairs Advisory Committee, Biometrics Section

Organizer(s): David Kane, Harvard University

Chair(s): Jana Asher

10:35 a.m. **Iraq Data on Mortality: What Can We Believe?—✱**Safaa R. Amer, National Opinion Research Center

10:55 a.m. **Ethical and Data-Integrity Problems in the Second Lancet Survey of Mortality in Iraq—✱**Michael Spagat, Royal Holloway, University of London

11:15 a.m. **Methods for Measuring Mortality in Conflicts: A Comparative Analyses of D.R. Congo, Iraq, and Darfur—✱**Debarati Guha-Sapir, University of Louvain; Olivier Degomme, University of Louvain

11:35 a.m. **Nonviolence-Related Mortality in Iraq: Evidence from Iraq Family Health Survey (IFHS)—✱**Mohamed M. Ali, WHO-MHI

11:55 a.m. Disc: David Kane, Harvard University

12:15 p.m. **Floor Discussion**

Topic-Contributed Panel 10:30 a.m.–12:20 p.m.

390 CC-711

▲ Collaborative Projects in Statistics Education Research—Topic-Contributed

Section on Statistical Education

Organizer(s): Robert delMas, The University of Minnesota

Chair(s): Robert delMas, The University of Minnesota

Panelists: ✱Sterling Hilton, Brigham Young University

✱Jennifer Kaplan, Michigan State University

✱Tisha Hooks, Winona State University

✱Leigh Harrell, Virginia Polytechnic Institute and State University

✱Diane Fisher, University of Louisiana at Lafayette

12:15 p.m. **Floor Discussion**

Contributed Sessions 10:30 a.m.–12:20 p.m.

391 CC-105

● Applications in Health Sciences—Contributed

ENAR, Biometrics Section

Chair(s): Al M. Best, Virginia Commonwealth University

10:35 a.m. **Impact of Inspection Errors on Average Run Length of CUSUM Charts—✱**Yougui Wu, University of South Florida; Yiliang Wu, University of South Florida; Wang Wei, University of South Florida

10:50 a.m. **Bayesian Distributed Lag Models—✱**Mark J. Meyer, American University; Elizabeth J. Malloy, American University; Sara D. Adar, University of Washington; Brent A. Coull, Harvard School of Public Health

11:05 a.m. **Estimating Benefits Due to Fecal Occult Blood Test in Colorectal Cancer Screening—✱**Dongfeng Wu, University of Louisville; Gary L. Rosner, The University of Texas M.D. Anderson Cancer Center

11:20 a.m. **A Gene Selection Method for GeneChip Array Data with Small Sample Sizes—✱**Zhongxue Chen, The Children's Hospital of Philadelphia

11:35 a.m. **Telescoping Determinant Plots as an Index of Cognitive Information Accounted for in Electrophysiological Visual Evoked Response Data—✱**Daniel S. Barron, Brigham Young University; Bruce L. Brown, Brigham Young University; Dawson W. Hedges, Brigham Young University

11:50 a.m. **Floor Discussion**

392 CC-202

● ROC and Diagnostic Methods—Contributed

Biometrics Section, Section on Nonparametric Statistics

Chair(s): Krishna Saha, Central Connecticut State University

10:35 a.m. **Nonparametric Estimation for Time-Dependent AUC—✱**Hung Hung, National Taiwan University

10:50 a.m. **Tree-Structured Analysis for Determining Optimal Diagnostic Tests for Patients—✱**Caixia Li, University of California, San Francisco; Ying Lu, University of California, San Francisco

11:05 a.m. **Using Marginal ANOVA Models To Motivate, Generalize, and Derive Properties for the Obuchowski-Rockette Procedure for Multireader ROC Data Analysis—✱**Stephen Hillis, VA Iowa City Medical Center

11:20 a.m. **Time-Dependent Receiver Operating Characteristic (ROC) Curves for Design of Early Alzheimer's Disease Trials—✱**Norberto Pantoja-Galicia, Harvard University; Rebecca Betensky, Harvard University

11:35 a.m. **Estimation for the Optimal Combination of Markers Without Modeling the Censoring Distribution—✱**Chin-Tsang Chiang, National Taiwan University

11:50 a.m. **Probability Sampling Framework for Survival Analysis with Time-Varying Covariates—✱**Stephen L. Rathbun, The University of Georgia

12:05 p.m. **A Bayesian Framework for Assessing Longitudinal Agreement Between Two Continuous-Scale Diagnostic Tests in the Presence of Established Thresholds—✱**Farzad Noubary, Harvard School of Public Health; Michael Hughes, Harvard School of Public Health

393 CC-112

Which Way To Weight? Bias vs. Variance—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Hyunshik Lee, Westat, Inc.

10:35 a.m. **Weight Smoothing Models in Clustered or Cross-Classed Sample Designs—✱**Shelby (Xiaobi) Huang, The University of Michigan; Marc N. Elliott, RAND Corporation

10:50 a.m. **An Empirical Comparison of Procedures for Reducing Bias Due to Weighting Cell Collapsing—✱**Linda Tompkins, National Center for Health Statistics; Jay J. Kim, National Center for Health Statistics

11:05 a.m. **Weight Development for Outliers in a Panel Sample—✱**Yan K. Liu, Statistics of Income, IRS; Fritz Scheuren, The University of Chicago; Victoria Bryant, Statistics of Income, IRS

11:20 a.m. **Alternative Methods To Adjust for Nonresponse in the American Community Survey (ACS)—✱**Robyn Sirkis, U.S. Census Bureau

11:35 a.m. **Evaluating Alternative Use of Population Controls for American Community Survey Weighting Methodology—✱**Mark E. Asiala, U.S. Census Bureau; Michael Beaghen, U.S. Census Bureau; Keith Albright, U.S. Census Bureau

11:50 a.m. **Estimation for a Multipurpose and Multiframe Survey: The National Immunization Survey - Adult—✱**Hee-Choon Shin, National Opinion Research Center; Noelle-Angelique Molinari, National Center for Immunization and Respiratory Diseases; Meena Khare, National Center for Health Statistics; Kirk Wolter, National Opinion Research Center

12:05 p.m. **Analyzing Weighting Methods in the Federal Human Capital Survey—✱**Taylor H. Lewis, U.S. Office of Personnel Management; Katie Joseph, U.S. Office of Personnel Management; Eulus Moore, U.S. Office of Personnel Management

394 CC-107

● Alternative Measures of Association—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Owen J. Devine, Centers for Disease Control and Prevention

10:35 a.m. **On Effect-Measure Modification: Relationships Among Changes in the Relative Risk, Odds Ratio, and Risk Difference—✱**Babette A. Brumback, University of Florida; Arthur Berg, University of Florida

10:50 a.m. **A Generalized Estimator of the Attributable Benefit of an Optimal Treatment Regime—✱**Jason Brinkley, North Carolina State University; Anastasios Tsiatis, North Carolina State University; Kevin Anstrom, Duke Clinical Research Institute

11:05 a.m. **Estimating Model-Adjusted Risk and Prevalence Ratios from Survey Data in SUDAAN Release 10—**Gayle Bieler, RTI International; ✱Rick L. Williams, RTI International; George G. Brown, RTI International

11:20 a.m. **Evaluation of Population Attributable Risk in the Presence of Competing Causes—✱**Jie Huang, Northwestern University

11:35 a.m. **Changing the Reference Group in Published Odds Ratios for Multilevel Categorized Exposures in Preparation for Meta-Analysis—✱**Monika M. Wahi, Byrd Alzheimer's Institute; Skai W. Schwartz, USF COPH

11:50 a.m. **Generalized Linear Mixed Models in Oral Health Research—✱**Ileana Baldi, University of Torino; Dario Gregori, University of Torino

12:05 p.m. **On the Confidence Interval Estimates of Impact Numbers for Cross-Sectional Sampling Schemes—✱**Tanweer Shapla, Eastern Michigan University

395 CC-109

● Association of Genetic Factors with Outcome—Contributed

Section on Statistics in Epidemiology, Biopharmaceutical Section, Biometrics Section

Chair(s): E. Paul Wileyto, University of Pennsylvania

10:35 a.m. **Analysis of Population-Based Genetic Association Studies Using Propensity Scores—✱**Huaqing Zhao, University of Pennsylvania; Nandita Mitra, University of Pennsylvania; Timothy R. Rebbeck, University of Pennsylvania

10:50 a.m. **Application of Statistical Methods in Detecting Gene-Gene Interactions for a Cancer Case-Control Study—✱**Hui Zhao, The University of Texas M.D. Anderson Cancer Center; Qingyi Wei, The University of Texas M.D. Anderson Cancer Center

11:05 a.m. **Relationship Between Chronic Obstructive Pulmonary Disease and TLR4 Polymorphism (Asp299Gly)-BMI Interaction in a Canadian Population—✱**Punam Pahwa, University of Saskatchewan; Donna Rennie, University of Saskatchewan; Chandima P. Karunanayake, University of Saskatchewan; James Dosman, University of Saskatchewan; Claire F. McGuigan, University of Saskatchewan

11:20 a.m. **The Effects of Genetic and Environmental Factors on Longitudinal Changes in Pulmonary Function Values in a Rural Population: The Humboldt Study—✱**Chandima P. Karunanayake, University of Saskatchewan; Punam Pahwa, University of Saskatchewan; Donna Rennie, University of Saskatchewan; James Dosman, University of Saskatchewan; Claire F. McGuigan, University of Saskatchewan

11:35 a.m. **Application of Bayesian Classification with Singular Value Decomposition Method in a Genome-Wide Association Study—✱**Soonil Kwon, Cedars-Sinai Medical Center; Xiuqing Guo, Cedars-Sinai Medical Center

11:50 a.m. **A New Estimate of Family Disease History Providing Improved Prediction of Disease Risks—✱**Rui Feng, The University of Alabama at Birmingham; Leslie McClure, The University of Alabama at Birmingham; Hemant K. Tiwari, The University of Alabama at Birmingham; George Howard, The University of Alabama at Birmingham

12:05 p.m. **Selection Bias and Imputation in Genetic Association Analyses of Time-to-Event Data in Framingham Offspring Study—✱**Xiaoyan Yin, Boston University; Martin G. Larson, Boston University

396 CC-712

● ▲ From Teaching Business Students to Teaching Paradoxes—Contributed

Section on Statistical Education

Chair(s): Adam Molnar, Bellarmine University

10:35 a.m. **Strategies for Increasing the Effectiveness of Statistics Teaching in Business Curricula—**✱Bodapati V. Gandhi, University of Puerto Rico

10:50 a.m. **A 2005–2006 Senior Fulbright Outreach to Lviv Ukraine, Improving Business Decisionmaking with Statistical Methods—**✱J. Marcus Jobe, Miami University

11:05 a.m. **Sampling from Finite Multivariate Populations—**✱Bruce Barrett, The University of Alabama

11:20 a.m. **Plate Expectations: A Dickens of a Problem—**✱Milton W. Loyer, The Pennsylvania State University

11:35 a.m. **Are Textbooks Fairly Priced?—**✱David P. Doane, Oakland University; Lori E. Seward, University of Colorado Denver

11:50 a.m. **A Counterintuitive Regression Phenomenon—**✱Aiyou Chen, Bell Labs, Alcatel-Lucent; Thomas Bengtsson, Bell Labs, Alcatel-Lucent; Tin K. Ho, Bell Labs, Alcatel-Lucent

12:05 p.m. **Floor Discussion**

397 CC-706

Inference and Estimation—Contributed

Section on Statistical Computing

Chair(s): Ganesh Subramaniam, AT&T Labs - Research

10:35 a.m. **A Generalized Single-Stage Algorithm To Compute Shortest Confidence Intervals—**✱Ming Yang, The University of Iowa; Richard Dykstra, The University of Iowa

10:50 a.m. **Statistical Power of Two Tests for Comparing Vaccination Coverage Curves, National Immunization Survey (NIS)—**✱Zhen Zhao, Centers for Disease Control and Prevention

11:05 a.m. **Assessment of Normality Tests for ANOVA and Multilevel Models Under Small Samples—**✱Yi-Ting Hwang, National Taipei University; Chun-Chao Wang, National Taipei University

11:20 a.m. **Comparison of the Test for Normality Using Goodness-of-Fit Test Based on the Likelihood Ratio—**✱Ampai Thongteeraparp, Kasetsart University; Sirithip Wasinrat, Chandrakasem Rajabhat University

11:35 a.m. **Estimating Reliability and Comparing Its Estimators—**✱Mohammed A. Shayib, Prairie View A&M University; Aliakbar M. Haghighi, Prairie View A&M University

11:50 a.m. **Tolerance Limits for the Distribution of the Difference Between Two Independent Normal Random Variables—**✱Sumona Mondal, Clarkson University; Xiadong Lian, University of Louisiana at Lafayette; K. Krishnamoorthy, University of Louisiana at Lafayette

12:05 p.m. **Floor Discussion**

398 CC-701

● Advances in Computer Experiments—Contributed

Section on Physical and Engineering Sciences

Chair(s): Greg F. Piepel, Pacific Northwest National Laboratory

10:35 a.m. **Two-Stage Group Screening for Computer Experiments—**✱Hyejung Moon, The Ohio State University; Thomas J. Santner, The Ohio State University; Angela M. Dean, The Ohio State University

10:50 a.m. **Simultaneous Determination of Calibration and Tuning Parameters—**✱Gang Han, The Ohio State University; Thomas J. Santner, The Ohio State University

11:05 a.m. **Sequential Calibration of Computer Models—**✱Arun Kumar, The Ohio State University; William Notz, The Ohio State University

11:20 a.m. **Modeling and Estimation of Physical Simulation Parameters in Data Assimilation—**✱Kazuyuki Nakamura, The Institute of Statistical Mathematics; Tomoyuki Higuchi, The Institute of Statistical Mathematics

11:35 a.m. **Dynamically Consistent Sequence-Based Data Assimilation—**✱Neil Martinsen-Burrell, Wartburg College

11:50 a.m. **Floor Discussion**

399 CC-707

● Bayesian Computational Statistics—Contributed

Section on Bayesian Statistical Science, Section on Statistical Computing

Chair(s): Joyee Ghosh, Duke University

10:35 a.m. **New Perspectives on the Estimation of Normalizing Constants via Posterior Simulations—✱**Giovanni Petris, University of Arkansas; Luca Tardella, Universit‡ di Roma "La Sapienza"

10:50 a.m. **Geometric Ergodicity of Hybrid Samplers for Ill-Posed Inverse Problems—✱**Radu Herbei, The Ohio State University; Ian W. McKeague, Columbia University

11:05 a.m. **A Copula-Based Adaptive MCMC Sampler—✱**Georges Tsafack, Suffolk University; Yves F. Atchade, The University of Michigan

11:20 a.m. **Partially Bayesian Variable Selection in Classification Trees—✱**Douglas A. Noe, Miami University; Xuming He, University of Illinois at Urbana-Champaign

11:35 a.m. **Mechanism-Based Emulation of Dynamic Simulators: Concept and Application in Hydrology—✱**Peter Reichert, Eawag

11:50 a.m. **Bayesian Boundary Restoration Using Splines—✱**Larissa Stanberry, University of Washington

12:05 p.m. **Bayesian Transductive and Semi-Supervised Learning—✱**Sounak Chakraborty, University of Missouri-Columbia

400 CC-710

Statistical Analysis of Time-Indexed Data—Contributed

IMS, Section on Nonparametric Statistics

Chair(s): Al Ozonoff, Boston University School of Public Health

10:35 a.m. **On Optimal Maximum Likelihood Estimation for Locally Stationary Long-Memory Processes—✱**Jan Beran, University of Konstanz

10:50 a.m. **On the Maximum of Some Processes with Negative Drift and Heavy Tail Innovations—✱**William P. McCormick, The University of Georgia

11:05 a.m. **Regularized Autoregressive Frequency Estimation—✱**Bei Chen, University of Waterloo; Yulia R. Gel, University of Waterloo

11:20 a.m. **Asymptotic Properties of Hill's Estimator for Shot Noise Sequence—✱**Chenhua Zhang, Colorado State University

11:35 a.m. **Random Partition Masking Model for Censored and Masked Competing Risks Data—✱**Qiqing Yu, Binghamton University; Hao Qin, Binghamton University; Jiaping Wang, Binghamton University

11:50 p.m. **Floor Discussion**

401 CC-204

Robust Estimation for Skewed and Heavy-Tailed Distributions—Contributed

Biometrics Section, Section on Nonparametric Statistics

Chair(s): Michael Pennell, The Ohio State University

10:35 a.m. **The Epsilon-Skew Laplace Distribution—✱**Hassan Elsalloukh, University of Arkansas at Little Rock

10:50 a.m. **Three-Step Estimation in Linear Mixed Models with Skew-T Distributions—✱**Tianyue Zhou, sanofi-aventis; Xuming He, University of Illinois at Urbana-Champaign

11:05 a.m. **On the Use of Optimal Discovery Procedure in Skewed Distributions—✱**Igor Melnykov, Colorado State University, Pueblo

11:20 a.m. **Heavy-Tailed Distributions in Quantitative Trait Genetics—✱**Serge Sverdlov, University of Washington

11:35 a.m. **Robust Estimation for Finite Mixture Regression Models with Random Effects via the Minimum Hellinger Distance Approach—✱**Liming Xiang, Nanyang Technological University, Singapore

11:50 a.m. **A New Method for Estimating Regression Parameters with Repeated Runs—✱**Howraa Majeed, University of Arkansas at Little Rock; Hassan Elsalloukh, University of Arkansas at Little Rock; Shawki Shaker Hussain, University of Baghdad

12:05 p.m. **Estimation of False Discovery Rate Using Skew-Mixture Models—✱**Anindya Roy, University of Maryland, Baltimore County; Subhashis Ghosal, North Carolina State University

402 CC-210

Models, Measurements, and Methods—Contributed

General Methodology

Chair(s): Katherine Furgol, The University of Iowa

10:35 a.m. **Optimizing Smoothness Kernel Size for the Smoothed Variance T-Test—✱**Hui Zhang, The University of Michigan; Timothy D. Johnson, The University of Michigan; Thomas E. Nichols, GlaxoSmithKline Clinical Imaging Centre

10:50 a.m. **Normal-Based Methods for a Gamma Distribution: Prediction and Tolerance Intervals and Stress-Strength Reliability—✱**Shubhabrata Mukherjee, Virginia State University; K. Krishnamoorthy, University of Louisiana at Lafayette; Thomas Mathew, University of Maryland, Baltimore County

11:05 a.m. **The Effect of Toeplitz Structure on the Power of Multivariate Significance Tests in a MANOVA—✱**Jessica H. Scott, Brigham Young University; Bruce L. Brown, Brigham Young University

11:20 a.m. **Exact Bounded Risk Estimation When the Terminal Size and Estimator Are Dependent: The Gamma Case—✱**Kevin P. Tolliver, Auburn University; David M. Carpenter, Auburn University

11:35 a.m. **An Empirical Approach to Sufficient Similarity in Dose-Responsiveness: Utilization of Statistical Distance as a Similarity Measure—✱**Scott Marshall, Virginia Commonwealth University; Chris Gennings, Virginia Commonwealth University; LeAnna G. Stork, Monsanto Company; Linda Teuschler, U.S. Environmental Protection Agency; John Libscomb, U.S. Environmental Protection Agency; Mike DeVito, U.S. Environmental Protection Agency; Kevin M. Crofton, U.S. Environmental Protection Agency

11:50 a.m. **Floor Discussion**

403 CC-206

Multiple Comparisons and Simultaneous Inference Methods—Contributed

Biometrics Section, Biopharmaceutical Section, IMS

Chair(s): Terri Johnson, Centers for Disease Control and Prevention

10:35 a.m. **A Geometric Interpretation of Permutation P-Value and Its Application—✱**Wei Sun, The University of North Carolina at Chapel Hill; Fred Wright, The University of North Carolina at Chapel Hill

10:50 a.m. **Estimating the Proportion of True Null Hypotheses Using the Pattern of the Observed P-Values—✱**Tiejun Tong, University of Colorado, Boulder; Zeny Feng, University of Guelph; Hongyu Zhao, Yale University School of Medicine

11:05 a.m. **Monotone Multiple Testing Procedures and Implications of Monotonicity—✱**Alexander Y. Gordon, The University of North Carolina, Charlotte

11:20 a.m. **Simultaneous Confidence Bands for Multidimensional Effective Doses in Chemical Mixture Models—✱**Gemechis D. Djira, South Dakota State University; Din Chen, South Dakota State University

11:35 a.m. **Adaptive Choice of the Number of Bootstrap Samples in Large-Scale Multiple Testing—✱**Wenge Guo, National Institute of Environmental Health Science; Shyamal Peddada, National Institute of Environmental Health Science

11:50 a.m. **A Higher Dimension Multiplicity Adjustment Method When Testing for Multiple Response Variables—✱**Mohammad Quasem, Howard University; Mohammad F. Huque, U.S. Food and Drug Administration; Atiar Rahman, U.S. Food and Drug Administration

12:05 p.m. **Surrogate Variable Analysis—✱**Jeffrey Leek, Mount Sinai School of Medicine; John Storey, Princeton University

404 CC-201

● ▲ Sample Size Issues in Drug Research and Development—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Jin Xu, Merck & Co., Inc.

10:35 a.m. **Bayesian Sample Size Determination for Confirmatory Trial—✱**Qin Pan, ICON Clinical Research; Charles DuMond, ICON Clinical Research

10:50 a.m. **A Multivariate Approach to Sample Size Calculations for Thorough QT Studies—**✱Sharon C. Murray, GlaxoSmithKline; Suraj P. Anand, North Carolina State University; Gary G. Koch, The University of North Carolina at Chapel Hill

11:05 a.m. **Sample Size for Identifying Differentially Expressed Genes in Microarray Experiment—**✱Zhaoyu Luo, Rutgers, The State University of New Jersey; Javier Cabrera, Rutgers, The State University of New Jersey; Xiang Yu, Merck Reserach Laboratories; Peggy Wong, Merck Research Laboratories

11:20 a.m. **The Minimum Required Number of Clusters for Cluster Randomized Trials—**✱Zhiying You, The University of Alabama at Birmingham; Gary Cutter, The University of Alabama at Birmingham

11:35 a.m. **Sample Size Calculation for an Agreement Study—**✱Jason Liao, Merck Research Laboratories

11:50 a.m. **An Optimal Group Size Ratio for Many-to-One Comparisons in Clinical Trials—**✱Jianliang Zhang, MedImmune, Inc.

12:05 p.m. **On Adaptive Trial Simulations—**✱William W. Wang, Merck & Co., Inc.

Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

405 CC-F Lobby

Contributed Poster Presentations—Contributed

Biometrics Section, Biopharmaceutical Section, Business and Economics Statistics Section, ENAR, IMS, Section on Nonparametric Statistics, Section on Quality and Productivity, Section on Statistical Computing, Section on Statistical Graphics, Section on Statisticians in Defense and National Security, Section on Statistics and Marketing, Section on Statistics and the Environment, Section on Statistics in Epidemiology, WNAR

Organizer(s): John Castelloe, SAS Institute Inc.
Chair(s): John Castelloe, SAS Institute Inc.

Incomplete data analysis, imputation methods

33 An Application of Multiple Partial Imputation to Analysis of Longitudinal Quality-of-Life Data—✱Paul Kolm, Christiana Care Health System; Wei Zhang, Christiana Care Health System; John Spertus, Mid American Heart Institute; William Weintraub, Christiana Care Health System

34 **Imputation of Missing Items for the Scale Variables Using Item Response Theory Models—**✱Jian Zhu, The University of Michigan; Trivellore Raghunathan, The University of Michigan; Raymond Bingham, The University of Michigan

35 **A Comparison of Multiple and Single Imputation Algorithms for Missing Data in Quadratic Discriminant Function—**✱Page C. Moore, University of Arkansas for Medical Sciences; Songthip Ounpraseuth, University of Arkansas for Medical Sciences; Dean Young, Baylor University

36 **Imputation of Nondetects in Environmental Concentration Measurements—**✱John Rogers, Westat, Inc.

Linear models, GLMs, parametric methods

37 **Exact and REML-Based Confidence Intervals for Variance Components Using Non-Normal Distributions—**✱Brent Burch, Northern Arizona University

38 **Restricted Heteroscedastic IV Estimators: A Simulation with Small Samples—**✱Luis Frank, University of Buenos Aires

39 **Covariate Measurement Error Correction via Empirical Bayesian Methods—**✱Miguel Padilla, Old Dominion University; Daniel Shriner, The University of Alabama at Birmingham

40 **A Single-Step Modified Bonferroni Procedure for Multiple Tests—**✱Michelle A. Roozeboom, Iowa Foundation for Medical Care; Daniel Mundfrom, University of Northern Colorado; Jamis Perrett, Texas A&M University

41 **Regression Analysis for Line Scale Data in Sensory Science—**✱Lin Xie, Kansas State University; Rui Xiong, Unilever Home & Personal Care

42 **Model-Building for Mixed-Effects Models with Random Scale Effects—**✱Lei Shu, Purdue University; William Cleveland, Purdue University

43 **Modeling Generalized Linear Mixed Models in S-PLUS, R, and SAS—**✱Stella Karuri, Insightful Corporation; Tim Hesterberg, Google, Inc.; Chris Fraley, Insightful Corporation

44 **Measuring Goodness-of-Fit for Generalized Linear Models—**✱Yves Chretien, Harvard University; Carl Morris, Harvard University

45 **Comparison of Generalized Linear Models To Evaluate Factors Associated with Metabolic Syndrome—**✱Desta B. Fekedulegn, National Institute for Occupational Safety and Health; Michael E. Andrew, National Institute for Occupational Safety and Health; John M. Violanti, The State University of New York at Buffalo; Tara A. Hartley, National Institute for Occupational Safety and Health; Luenda E. Charles, National Institute for Occupational Safety and Health; Cecil M. Burchfiel, National Institute for Occupational Safety and Health

Longitudinal data, repeated measurements, and meta-analysis

46 **Joint Distribution of Parametric and Nonparametric Parameters in Longitudinal Factorial Designs—**✱Terri Wooten, University of Arkansas for Medical Sciences; D. Keith Williams, University of Arkansas for Medical Sciences; Zoran Bursac, University of Arkansas for Medical Sciences

47 **Correlated Binary Data: A Comparison of Analytic Approaches for the Analysis of Patient-Reported Outcomes in Diarrhea-Predominant Irritable Bowel Syndrome—**✱Norman Bohidar, Johnson & Johnson Pharmaceutical R&D, LLC; Mary Ellen Frustaci, Johnson & Johnson Pharmaceutical R&D, LLC; Surya Mohanty, Johnson & Johnson Pharmaceutical R&D, LLC

48 **GEE Performance in Analyzing Longitudinal Binary Data Collected Over Unequal Time Intervals—**✱Soe Soe Thwin, Boston University Medical Center; David Gagnon, Boston University School of Public Health; Howard Cabral, Boston University School of Public Health; Adrienne Cupples, Boston University School of Public Health

49 **Capturing Group Membership via Growth Mixture Models: A Simulation Study—**✱Kevin Delucchi, University of California, San Francisco; Alan Bostrom, University of California, San Francisco

Mathematical statistics, distribution theory, robust statistics

50 **Pseudo Likelihoods for Nonlinear Regression Models—**✱Harshini Fernando, Purdue University North Central

51 **On Interval Estimations for a Dichotomized Variable Derived from a Continuous Measure—**✱Jessica L. Kim, U.S. Food and Drug Administration; Jean Wang, U.S. Food and Drug Administration

52 **Shrinkage Drift Parameters Estimation for Multifactors Ornstein-Uhlenbeck Processes—**✱Ejaz S. Ahmed, University of Windsor; Severien Nkurunziza, University of Windsor

53 **Bivariate and Multivariate Association Coefficients—**✱Nan Kong, Educational Testing Services

54 **Heterogeneous Variance Models and Their Applications in Parameter Designs—**✱Fassil Nebebe, Concordia University

Medical devices

55 **Residual Analysis for Detecting Mismodeling in fMRI—**✱Ji Meng Loh, Columbia University

56 **Receiver Operating Curves (ROC) in the Evaluation of Diagnostic Accuracy in Medical Devices—**✱Inder Sharma, Sharma Associates, Inc.

57 **Assay Performance Comparison—**Victoria Petrides, Abbott Laboratories; ✱Susan Gawel, Abbott Laboratories; Anthony Orzechowski, Abbott Laboratories; Theresa Garwood, Abbott Laboratories

58 **Methods for Comparing Biomarkers for Aid-in-Diagnosis and Prediction—✱**Sarah Hurwicz Kogut, i3 Statprobe

National security, data confidentiality

59 **Importance in the Developing Countries of Statistics in Sector Security and Defence Policy—✱**Jhoner L. Perdomo, V, Universidad Central de Venezuela

60 **Confidential Data Perturbation via Skew-T Distributions—✱**Seokho Lee, Texas A&M University; Marc G. Genton, University of Geneva; Reinaldo B. Arellano-Valle, Pontifícia Universidad Católica de Chile

Speaker with Lunch 12:30 p.m.–1:50 p.m.

406 HY-Capitol Ballroom 6

Section on Health Policy Statistics Speaker with Lunch (fee event)—Speaker with Lunch

Section on Health Policy Statistics

Organizer(s): Mary Beth Landrum, Harvard Medical School

WL07 **Weight and Mortality: Estimates for the U.S. Population—✱**Katherine M. Flegal, Centers for Disease Control and Prevention

Roundtables with Lunch 12:30 p.m.–1:50 p.m.

407 HY-Capitol Ballroom 4

Section on Bayesian Statistical Science Roundtables with Lunch (fee event)

Section on Bayesian Statistical Science

Organizer(s): Michael Daniels, University of Florida

WL08 **Bayesian Methods in the Evaluation of Modalities for Diagnosis and Prediction—✱**Constantine Gatsonis, Brown University

WL09 **Bayesian Methods in Medical Device Trials—✱**Bradley P. Carlin, The University of Minnesota

408 HY-Capitol Ballroom 4

Biopharmaceutical Section Roundtables with Lunch (fee event)

Biopharmaceutical Section

Organizer(s): Matilde Sanchez, Arena Pharmaceuticals

WL10 **A Bayesian Approach to the ICH Q8 Definition of Design Space—✱**John J. Peterson, GlaxoSmithKline Pharmaceuticals

WL11 **Do Statisticians Still Look at the Data?—✱**Bret J. Musser, Merck Research Laboratories

WL12 **CANCELLED - Prespecifying Analyses: In the Lifecycle of a Clinical Trial, Does It Matter When, Where, and How You Prespecify?—**Bruce Binkowitz, Merck Research Laboratories

WL13 **Patient-Reported Outcomes: Measurement Reliability and Sensitivity—✱**Tammy Massie, U.S. Food and Drug Administration

WL14 **Applying Lean Six Sigma Concepts to Adaptive Trial Logistics—✱**Darcy Hille, Merck & Co., Inc.; Paulette Ceesay, Merck & Co., Inc.

409 HY-Capitol Ballroom 4

Section on Government Statistics Roundtable with Lunch (fee event)

Section on Government Statistics

Organizer(s): Sunghee Lee, University of California, Los Angeles

WL15 **Cell Phone Survey Sampling and Weighting—✱**Michael P. Battaglia, Abt Associates, Inc.

410 HY-Capitol Ballroom 4

Section on Physical and Engineering Sciences Roundtable with Lunch (fee event)

Section on Physical and Engineering Sciences

Organizer(s): Jeffery J. Luner, The Boeing Company

WL16 **How Quality Evaluation Affects Product Reliability Models—✱**Dan Fitzsimmons, Boeing Commercial Airplanes

411 HY-Capitol Ballroom 4

Section on Statistical Consulting Roundtable with Lunch (fee event)

Section on Statistical Consulting

Organizer(s): Stephan Ogenstad, Statogen Consulting LLC

WL18 **Is That Clear? Communicating with Clients Effectively—✱**Novie O.M. Younger, The University of the West Indies, Jamaica

412 HY-Capitol Ballroom 4

Section on Statistical Education Roundtables with Lunch (fee event)

Section on Statistical Education

Organizer(s): Peter Westfall, Texas Tech University

WL19 **Statistical Outreach: How Statisticians in Industry and Academia Can Reach Out to Secondary Educators and High-School Students—✱**Cynthia A. Gargano, Merck & Co., Inc.

WL20 **Active Learning: Engaging Students in Learning Now—✱**Paul J. Fields, Brigham Young University

WL21 **Broadening the Undergraduate Statistics Curriculum—✱**Deborah Nolan, University of California, Berkeley

413 HY-Capitol Ballroom 5

Section on Statisticians in Defense and National Security Roundtable with Lunch (fee event)

Section on Statisticians in Defense and National Security

Organizer(s): Myron Katzoff, Centers for Disease Control and Prevention

WL22 **Research Directions in Information Integration—✱**Wendy Martinez, Office of Naval Research

414 HY-Capitol Ballroom 5

Section on Statistics and Marketing Roundtable with Lunch (fee event)

Section on Statistics and Marketing

Organizer(s): Michael Braun, MIT Sloan School of Management

WL23 **Applications of Internet Clickstream Data: Past, Present, and Future—✱**Wendy Moe, University of Maryland, College Park

415 HY-Capitol Ballroom 5

Section on Statistics in Epidemiology Roundtable with Lunch (fee event)

Section on Statistics in Epidemiology

Organizer(s): Amy H. Herring, The University of North Carolina at Chapel Hill

WL24 **Statistical Innovation in Submissions to FDA and Other Regulatory Bodies—✱**Diane Fairclough, University of Colorado Denver

416 HY-Capitol Ballroom 5

Section on Survey Research Methods Roundtable with Lunch (fee event)

Section on Survey Research Methods

Organizer(s): Elaine Zanutto, National Analysts Worldwide Research and Consulting

WL25 **Characterization, Evaluation, and Management of Systemic Risk in Surveys—✱**John L. Eltinge, Bureau of Labor Statistics

417 HY-Capitol Ballroom 5

Social Statistics Section Roundtable with Lunch (fee event)

Social Statistics Section

Organizer(s): Kathleen S. O'Connor, Centers for Disease Control and Prevention

WL26 **From Data to Action: A Case Study To Disseminate and Communicate Children's Health Statistics to Multiple Stakeholders Through an Online Data Tool—✱**Kathleen S. O'Connor, Centers for Disease Control and Prevention; Christina D. Bethell, Oregon Health & Science University; Stephen J. Blumberg, Centers for Disease Control and Prevention

Invited Sessions 2:00 p.m.–3:50 p.m.

418 CC-109

● ▲ Spatial Models of Loa loa Disease—Invited

JASA, Applications and Case Studies

Organizer(s): David Banks, Duke University

Chair(s): David Banks, Duke University

2:05 p.m. **Bivariate Binomial Spatial Modeling Loa loa Prevalence In Tropical Africa—✱**Ciprian M. Crainiceanu, Johns Hopkins University; Peter J. Diggle, Lancaster University; Barry Rowlingson, Lancaster University

3:15 p.m. Disc: David Dunson, National Institute of Environmental Health Science

3:35 p.m. **Floor Discussion**

419 CC-103

● ▲ Disease Prediction and Model Validation: Tools for the Real World—Invited

Section on Statistics in Epidemiology, Section on Statisticians in Defense and National Security, WNAR, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Heejung Bang, Weill Medical College of Cornell University

Chair(s): Nancy R. Cook, Brigham & Women's Hospital

2:05 p.m. **Statistical Applications in Elucidating the Epidemic of Obesity and the Metabolic Syndrome in Children and Adolescents—✱**Shumei S. Sun, Virginia Commonwealth University

2:30 p.m. **Evaluation of Prognostic Models Using Area Between Curves (ABC)—✱**Mithat Gonen, Memorial Sloan-Kettering Cancer Center

2:55 p.m. **Simple Algorithms To Predict Kidney Disease: Ready To Be Used in the Real World?—✱**Heejung Bang, Weill Medical College of Cornell University; Madhu Mazumdar, Weill Cornell Medical College

3:20 p.m. Disc: Greg Ridgeway, RAND Corporation

3:40 p.m. **Floor Discussion**

420 CC-203

● Design and Analysis of Industrial Split-Plot Experiments: Best Practices—Invited

Section on Physical and Engineering Sciences, Section on Quality and Productivity

Organizer(s): Bradley Jones, SAS Institute Inc.

Chair(s): Bradley Jones, SAS Institute Inc.

2:05 p.m. **Aspects in the Analysis of Split-Plot Experiments—✱**Oliver Schabenberger, SAS Institute Inc.

2:30 p.m. **Designing Optimal Split-Plot and Split-Split-Plot Experiments—✱**Peter Goos, Universiteit Antwerpen; Bradley Jones, SAS Institute Inc.

2:55 p.m. **Split-Plot Designs: What, Why, and How—✱**Christopher Nachtsheim, Carlson School of Management

3:20 p.m. Disc: José G. Ramírez, W.L. Gore & Associates, Inc.

3:40 p.m. **Floor Discussion**

421 CC-111

● Statistical Problems in Wireless Sensor Networks—Invited

Section on Statisticians in Defense and National Security, Section on Statisticians in Defense and National Security

Organizer(s): Elizaveta Levina, The University of Michigan

Chair(s): Elizaveta Levina, The University of Michigan

2:05 p.m. **Robust Target Detection and Localization in Wireless Sensor Networks—✱**George Michailidis, The University of Michigan

2:30 p.m. **Energy-Performance Issues for Statistical Inference in Large Random Networks—** Animashree Anandkumar, Cornell University; Joseph Yukich, Lehigh University; Ananthram Swami, Cornell University; ✱Lang Tong, Cornell University

2:55 p.m. **Active Data Acquisition for Mobile Sensor Networks—✱**Nicolas Hengartner, Los Alamos National Laboratory

3:20 p.m. Disc: Mark H. Hansen, University of California, Los Angeles

3:40 p.m. **Floor Discussion**

422 CC-113

● Statistics Education in the Health Sciences During the Clinical and Translational Science Era: Bench to Bedside to Populations—Invited

Section on Teaching Statistics in the Health Sciences, Section on Statistical Consulting, WNAR, Section on Health Policy Statistics

Organizer(s): Jodi Lapidus, Oregon Health & Science University

Chair(s): Nichole Carlson, University of Colorado Denver

2:05 p.m. **Teaching Translational Biostatistics Through Partnered Training: A Dual-Mentoring Approach Using the CTSA—✱**Laurel A. Beckett, University of California, Davis

2:30 p.m. **Training Investigators via the CTSA Biostatistics Consulting Core: The Tale of the Two Cities—✱**Mariza de Andrade, Mayo Clinic

2:55 p.m. **Focusing Biostatistics Training on Bench to Beside Translation—✱**Shannon K. McWeeney, Oregon Health & Science University

3:20 p.m. Disc: Edward J. Bedrick, University of New Mexico

3:40 p.m. **Floor Discussion**

423 CC-107

● ▲ Ideas That Make a Difference: Contributions of F. N. David Award Recipients—Invited

Committee on Women in Statistics

Organizer(s): Mari Palta, University of Wisconsin-Madison

Chair(s): Dianne Finkelstein, Harvard School of Public Helath

2:05 p.m. **Nonparametric Linkage Tests Using Affected Pedigree Members: The Work of Alice S. Whittemore—✱**Mei-Chiung Shih, Stanford University

2:30 p.m. **Comparing Multiple Treatments: Importance of the Overall Pattern of Results—✱**Juliet P. Shaffer, University of California, Berkeley

2:55 p.m. **On Collaborations and Contributions: A Personal Perspective—✱**Nan Laird, Harvard School of Public Health

3:20 p.m. **A Randomly Reinforced Urn Design—✱**Nancy Flournoy, University of Missouri-Columbia

3:45 p.m. **Floor Discussion**

424 CC-702

▲ Multiscale Methods for Overcomplete Representations—Invited

Section on Bayesian Statistical Science

Organizer(s): Patrick J. Wolfe, Harvard University

Chair(s): Xiao-Li Meng, Harvard University

2:05 p.m. **Time Series Analysis with Overcomplete Representations—✱**Guy Nason, University of Bristol; Alessandro Cardinali, University of Bristol

2:30 p.m. **Bayesian Rules for Nonparametric Regression Estimation Based on Overcomplete Representations—✱**Marianna Pensky, University of Central Florida

2:55 p.m. **Multiscale Time-Frequency Representations and Inference for Forensic Speech and Audio Analysis—✱**Patrick J. Wolfe, Harvard University

3:20 p.m. Disc: Merlise Clyde, Duke University

3:40 p.m. **Floor Discussion**

425 CC-205

● ▲ The Emergence of Social Data Analysis and Its Impact on the Field of Statistics—Invited

Section on Statistical Graphics, Social Statistics Section, *CHANCE*

Organizer(s): Webster West, Integrated Analytics LLC

Chair(s): Steven N. MacEachern, The Ohio State University

2:05 p.m. **Many Eyes: A Site for Social Data Analysis and Visualization—**Fernanda Viegas, IBM; ✱Martin Wattenberg, IBM Research

2:45 p.m. **StatCrunch: From Statistical Software to a Portal for Social Data Analysis—✱**Webster West, Integrated Analytics LLC

3:25 p.m. **Floor Discussion**

426 CC-207

● Best of the *Annals of Applied Statistics*—Invited

IMS, WNAR

Organizer(s): Josee Dupuis, Boston University

Chair(s): Josee Dupuis, Boston University

2:05 p.m. **Stochastic Modeling in Nanoscale Biophysics: Subdiffusion Within Proteins—✱**Samuel Kou, Harvard University

2:35 p.m. **Of Mice and Men: Sparse Statistical Modeling in Genomics—✱**Mike West, Duke University

2:55 p.m. **Should the Democrats Move to the Left on Economic Policy?—✱**Andrew Gelman, Columbia University; Cexun J. Cai, Columbia University

3:20 p.m. Disc: Bradley Efron, Stanford University

3:40 p.m. **Floor Discussion**

427 CC-201

Biometrics Editors Invited Session—Invited

ENAR, WNAR, Biometrics Section

Organizer(s): Naisyin Wang, Texas A&M University; Laurence Freedman, Gertner Institute for Epidemiology and Health Policy Research; Geert Molenberghs, Hasselt University

Chair(s): Naisyin Wang, Texas A&M University

2:05 p.m. **Variable Selection for Model-Based, High-Dimensional Clustering and Its Application to Microarray Data—**Sijian Wang, The University of Michigan; ✱Ji Zhu, The University of Michigan

2:35 p.m. **Screening for Partial Conjunction Hypotheses—✱**Yoav Benjamini, Tel Aviv University; Ruth Heller, University of Pennsylvania

3:05 p.m. **A Flexible and Powerful Bayesian Hierarchical Model for ChIP-Chip Experiments—✱**Raphael Gottardo, The University of British Columbia; Wei Li, Harvard University; Evan Johnson, Brigham Young University; Shirley Liu, Harvard University

3:35 p.m. **Floor Discussion**

428 CC-202

● Bioinformatics—Invited

WNAR, Biopharmaceutical Section, Biometrics Section

Organizer(s): Nicholas P. Jewell, University of California, Berkeley

Chair(s): Imola K. Fodor, Genentech, Inc.

2:05 p.m. **Survival Analysis of Microarray Gene Expression Data—✱**Jianguo (Tony) Sun, University of Missouri-Columbia; Qiang Zhao, Texas State University; Ping Yao, University of Missouri-Columbia

2:30 p.m. **Reconstructing Gene Regulatory Networks from Gene Expression Data and Biological Prior Knowledge—✱**Dirk Husmeier, Biomathematics & Statistics Scotland

2:55 p.m. **Modeling Splice-Junction Microarrays—✱**Kasper D. Hansen, University of California, Berkeley

3:20 p.m. Disc: Rebecka Jornsten, Rutgers, The State University of New Jersey

3:40 p.m. **Floor Discussion**

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

429 CC-106

Bayesian Modeling of Extreme Events—Topic-Contributed

Section on Risk Analysis, Section on Statistics and the Environment, Section on Statistics in Epidemiology

Organizer(s): Dipak Dey, University of Connecticut

Chair(s): Bani K. Mallick, Texas A&M University

2:05 p.m. **Semiparametric Functional Estimation Using Quantile-Based Prior Elicitation—✱**Elijah Gaioni, University of Connecticut; Dipak Dey, University of Connecticut; Mircea Grigoriu, Cornell University

2:25 p.m. **Bayesian Hierarchical Modeling for Extreme Values Observed Over Space and Time—✱**Huiyan Sang, Duke University; Alan Gelfand, Duke University

2:45 p.m. **Bayesian Model Selection of the Farlie-Gumbel-Morgenstern Copula for Describing Two Generalized Extreme Value Variables—✱**Vered Madar, Statistical and Applied Mathematical Sciences Institute

3:05 p.m. **A Bayesian Framework for Adversarial Risk Analysis—✱**Jesus Rios, Statistical and Applied Mathematical Sciences Institute; David Rios, Universidad Rey Juan Carlos; David Banks, Duke University

3:25 p.m. **Thresholding for Multivariate Extreme Values—✱**Kobi A. Abayomi, Duke University

3:45 p.m. **Floor Discussion**

430 CC-105

● ▲ Enhancing Development of Genomewide Association Methods—Topic-Contributed

Biometrics Section, Biopharmaceutical Section, Section on Statistics in Epidemiology, WNAR

Organizer(s): Gang Zheng, National Heart, Lung, and Blood Institute

Chair(s): Gang Zheng, National Heart, Lung, and Blood Institute

2:05 p.m. **On Combining Family-Based and Population-Based Case-Control Study in Assessing Genetic Association with Disease Risk—✱**Yingye Zheng, Fred Hutchinson Cancer Research Center; Patrick Heagerty, University of Washington; Li Hsu, Fred Hutchinson Cancer Research Center

2:25 p.m. **Multiple Comparisons Overestimation Bias in Association Studies—✱**Neal Jeffries, National Heart, Lung, and Blood Institute

2:45 p.m. **Multivariate Methods for Detecting and Displaying Population Structure in GWAS—✱**Kelci J. Miclaus, North Carolina State University/SAS Institute; Russ Wolfinger, SAS Institute Inc.; Wendy Czika, SAS Institute Inc.

3:05 p.m. **Multi-SNP Association Mapping Using Bayesian Regression and Shrinkage Priors—✱**Yongtao Guan, The University of Chicago; Matthew Stephens, The University of Chicago

3:25 p.m. **A Robust Test for Two-Stage Design in Genome-Wide Association Studies—✱**Minjung Kwak, National Heart, Lung, and Blood Institute; Jungnam Joo, National Heart, Lung, and Blood Institute; Gang Zheng, National Heart, Lung, and Blood Institute

3:45 p.m. **Floor Discussion**

431 CC-102

● ▲ DMC Members: What Do They Hang Their Hats On?—Topic-Contributed

Biopharmaceutical Section, Biometrics Section

Organizer(s): Vipin Arora, Takeda Pharmaceuticals North America

Chair(s): John Connett, The University of Minnesota

2:05 p.m. **Beyond Standard Reports—✱**Vipin Arora, Takeda Pharmaceuticals North America

2:25 p.m. **Effective Interactions of the DMC, Steering Committee, and Sponsor in a Long-Term Prevention Trial—✱**Michelle McNabb, Eli Lilly and Company; Janet Wittes, Statistics Collaborative, Inc.

2:45 p.m. **Supporting the DMC To Fulfill Their Responsibilities Through Clear, Comprehensive, and Carefully Constructed Reports on Accumulating Interim Data—✱**Marian R. Fisher, University of Wisconsin-Madison

3:05 p.m. **Depending on the Independent Statistician ...—✱**Jennifer Schumi, Statistics Collaborative, Inc.; Matt Downs, Statistics Collaborative, Inc.

3:25 p.m. Disc: Janet Wittes, Statistics Collaborative, Inc.

3:45 p.m. **Floor Discussion**

432 CC-704

Student Paper Competition: Bayesian Computational Statistics—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): David A. van Dyk, University of California, Irvine
Chair(s): Ronald Christensen, University of New Mexico

2:05 p.m. **Stochastic Approximation and Newton's Estimate of a Mixing Distribution—✱**Ryan Martin, Purdue University; Jayanta K. Ghosh, Purdue University and Indian Statistical Institute

2:25 p.m. **Default Priors and Efficient Posterior Computation in Bayesian Factor Analysis—✱**Joyee Ghosh, Duke University; David Dunson, National Institute of Environmental Health Science

2:45 p.m. **Objective Bayesian Model Selection in Gaussian Graphical Models—✱**James G. Scott, Duke University; Carlos M. Carvalho, The University of Chicago

3:05 p.m. **Density Estimation for Bivariate Angular Data Using a von Mises Distribution and Bayesian Nonparametrics—✱**Kristin P. Lennox, Texas A&M University; David B. Dahl, Texas A&M University; Marina Vannucci, Rice University; Jerry Tsai, Texas A&M University

3:25 p.m. **Floor Discussion**

433 CC-703

● U.S. Census Bureau: Census 2010—Topic-Contributed

Section on Government Statistics, Section on Survey Research Methods, Social Statistics Section

Organizer(s): James Farber, U.S. Census Bureau
Chair(s): Joel Martin, U.S. Census Bureau

2:05 p.m. **An Overview of the 2010 Redesign Program at the U.S. Census Bureau—✱**Ruth A. Killion, U.S. Census Bureau; James Farber, U.S. Census Bureau; Padraic Murphy, U.S. Census Bureau

2:25 p.m. **An Overview of Primary Sampling Units (PSUs) in Multistage Samples for Demographic Surveys—✱**Padraic Murphy, U.S. Census Bureau

2:45 p.m. **Use a MAF-Based Frame for Demographic Household Surveys—✱**Xijian Liu, U.S. Census Bureau

3:05 p.m. **Innovations in Survey Redesign at the U.S. Census Bureau—✱**James Farber, U.S. Census Bureau; Padraic Murphy, U.S. Census Bureau

3:25 p.m. Disc: Jean Opsomer, Colorado State University

3:45 p.m. **Floor Discussion**

434 CC-110

▲ Bootstrap Methods for Complex Problems—Topic-Contributed

Section on Nonparametric Statistics, IMS, Section on Statistical Computing, SSC

Organizer(s): Dan Nordman, Iowa State University
Chair(s): Alan M. Polansky, Northern Illinois University

2:05 p.m. **On Block Bootstrap for Spatial Linear Regression of Irregularly Spaced Data—✱**Jun Zhu, University of Wisconsin-Madison

2:25 p.m. **Asymptotic Properties of Sample Quantiles from a Finite Population—✱**Arindam Chatterjee, Texas A&M University

2:45 p.m. **Variance Estimation for Sample Quantiles Using Smoothed Moving Block Bootstrap—✱**Shuxia Sun, Wright State University

3:05 p.m. **Pooling Block Bootstrap Estimators—✱**Arnab Maity, Texas A&M University; Soumendra N. Lahiri, Texas A&M University

3:25 p.m. **A Tapered Block Bootstrap for Variance Estimation in Time Series Regression—✱**Dan Nordman, Iowa State University

3:45 p.m. **Floor Discussion**

435 CC-108

Least Angle Regression—Topic-Contributed

Section on Statistical Computing, IMS

Organizer(s): Tim Hesterberg, Google, Inc.

Chair(s): Guilherme V. Rocha, University of California, Berkeley

2:05 p.m. **Hierarchically Penalized Cox Regression for High-Dimensional Censored Data with Grouped Variables and Its Oracle Property—✱**Sijian Wang, The University of Michigan; Bin Nan, The University of Michigan; Nengfeng Zhou, The University of Michigan; Ji Zhu, The University of Michigan

2:25 p.m. **Variable Selection with the Strong Heredity/ Marginality Constraint and Its Oracle Property—✱**Nam Hee Choi, The University of Michigan; Ji Zhu, The University of Michigan

2:45 p.m. **$\ell_1-\ell_q$ Regularization, Sparse Additive Models, and Simultaneous LASSO—✱**Han Liu, Carnegie Mellon University; Jian Zhang, Purdue University

3:05 p.m. **LARS/LASSO for Feature Selection and Kernel Basis Selection in Machine Learning—✱**Sathiya K. Selvaraj, Yahoo! Research

3:25 p.m. **Some Extensions of the LASSO: Applications and Algorithms—✱**Suhrid Balakrishnan, AT&T Labs - Research

3:45 p.m. **Floor Discussion**

436 CC-601

Teaching Ethics in Statistics Class—Topic-Contributed

Section on Statistical Education

Organizer(s): Paul F. Velleman, Cornell University

Chair(s): Michael A. Posner, Villanova University

2:05 p.m. **Ethics and the Introductory Statistics Course—✱**George P. McCabe, Purdue University

2:25 p.m. **Ethics: It's for Everyone—✱**Patricia B. Humphrey, Georgia Southern University

2:45 p.m. **Truth, Damn Truth, and Statistics—✱**Paul F. Velleman, Cornell University

3:05 p.m. Disc: John Walker, California Polytechnic State University

3:25 p.m. **Floor Discussion**

437 CC-709

● Mode Effects—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): Maxine Denniston, Centers for Disease Control and Prevention

Chair(s): Andrew White, National Center for Education Statistics

2:05 p.m. **Mode Effects on In-Person and Internet Surveys: A Comparison of the General Social Survey and Knowledge Networks Surveys—✱**Tom W. Smith, National Opinion Research Center; J. Michael Dennis, Knowledge Networks

2:25 p.m. **Comparing Estimates and Data Quality from the School Health Policies and Programs Study (SHPPS) 2006 for Mail and Telephone Data Collection: District-Level Questionnaires—✱**Maxine Denniston, Centers for Disease Control and Prevention; Nancy Brener, Centers for Disease Control and Prevention

2:45 p.m. **Assessing Mode Bias in a Mixed Mode Reproductive Health Survey—✱**Holly B. Shulman, Centers for Disease Control and Prevention; Nedra Whitehead, Research Triangle Institute

3:05 p.m. **2006 Canadian Census Internet Mode Effect Study—✱**Chantal Grondin, Statistics Canada; Limei Sun, Statistics Canada

3:25 p.m. **Evaluating Frames and Modes of Contact in a Study of Individuals with Disabilities—✱**Virginia M. Lesser, Oregon State University; Lydia Newton, Survey Research Center; Danny Yang, Survey Research Center

3:45 p.m. **Floor Discussion**

Contributed Sessions 2:00 p.m.–3:50 p.m.

438 CC-712

● ▲ Modeling of Migration and Social Networks—Contributed

Social Statistics Section, Section on Government Statistics, Section on Statisticians in Defense and National Security

Chair(s): Xiaohong M. Davis, Centers for Disease Control and Prevention

2:05 p.m. **Estimation of International Migration Flow Tables—✱**Guy J. Abel, University of Southampton

2:20 p.m. **Statistical Modeling of Migration Flows—✱**Peter W.F. Smith, University of Southampton; James Raymer, University of Southampton; Corrado Giulietti, University of Southampton

2:35 p.m. **Separable Models for Dynamic Social Networks—✱**Pavel N. Krivitsky, University of Washington; Mark S. Handcock, University of Washington

2:50 p.m. **Using Social Space Models for Inference on Missing Nodes—✱**David Marchette, Naval Surface Warfare Center

3:05 p.m. **Estimating Enforced Disappearances in Northern India: Comparative Notes on Multiple Systems Estimation and Respondent-Driven Sampling—✱**Romesh Silva, University of California, Berkeley

3:20 p.m. **Floor Discussion**

439 CC-705

● Adjusting for and Minimizing Unit Nonresponse—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): John Finamore, U.S. Census Bureau

2:05 p.m. **Update on Use of Administrative Data To Explore Effect of Establishment Nonresponse Adjustment on the National Compensation Survey Estimates—**Chester H. Ponikowski, Bureau of Labor Statistics; Erin McNulty, Bureau of Labor Statistics; ✱Jackson Crockett, Bureau of Labor Statistics

2:20 p.m. **Empirical Evaluation of Raking Ratio Adjustments for Nonresponse—✱**Ismael Flores Cervantes, Westat, Inc.; J. Michael Brick, Westat, Inc.

2:35 p.m. **The Bitter End? The Close of the 2007 SCF Field Period—✱**Arthur B. Kennickell, Federal Reserve Board of Governors

2:50 p.m. **Identifying, Collecting, and Using Auxiliary Variables To Adjust for Nonresponse Bias in Organizational Surveys—✱**Ashley Bowers, The University of Michigan

3:05 p.m. **Incorporating Multiple Reasons for Attrition into Analysis of Longitudinal Data—✱**Irina Bondarenko, The University of Michigan; Trivellore Raghunathan, The University of Michigan

3:20 p.m. **Subjective and Objective Numeracy and Disclosure Risk in Surveys—✱**Mick P. Couper, The University of Michigan; Eleanor Singer, The University of Michigan

3:35 p.m. **Floor Discussion**

440 CC-707

● Improved Sample Designs—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): Frank Potter, Mathematica Policy Research, Inc.

2:05 p.m. **Overview of the Survey of Occupational Injuries and Illnesses Sample Design and Estimation Methodology—✱**Philip N. Selby, Bureau of Labor Statistics; Terry M. Burdette, Bureau of Labor Statistics; Erin Huband, Bureau of Labor Statistics

2:20 p.m. **Evaluating the Within-Household Selection Procedures for in-Person U.S. Adult Literacy Surveys—✱**Tom Krenzke, Westat, Inc.; Leyla Mohadjer, Westat, Inc.; Lin Li, Westat, Inc.

2:35 p.m. **Developing Statistical 'Twins' Methodology for Selecting Sites for Qualitative Case Studies—✱**Zhiwei Zhang, National Opinion Research Center; Fritz Scheuren, The University of Chicago

2:50 p.m. **Sample Design and Sample Selection for Adult Multivitamin Mineral Study—✱**Charles Perry, U.S. Department of Agriculture; Joanne Holden, U.S. Department of Agriculture; Janet Roseland, U.S. Department of Agriculture; Larry Douglas,

3:05 p.m. **Optimized Whole-Sample Procedures vs. Traditional Draw-by-Draw Procedures—✱**Sun-Woong Kim, Dongguk University; Steven G. Heeringa, Institute for Social Research; Sung-Joon Hong, Dongguk University; Peter S. Solenberger, Institute for Social Research

3:20 p.m. **Intraclass Correlation Patterns of Cognitive and Behavioral Measures of Illicit Drug Use Within Six Major Metropolitan Areas—**Zhiwei Zhang, National Opinion Research Center; ✱Michael P. Cohen, Statistical Consultant; Douglas Wright, National Opinion Research Center

3:35 p.m. **Drawing a Sample from a Given Distribution—✱**Andrew Vogt, Georgetown University; Dhirendra N. Ghosh, Synectics for Management Decisions Inc.

441 CC-206

● Measurement Error and Control of Bias—Contributed

Section on Statistics in Epidemiology, Section on Survey Research Methods, Social Statistics Section, Biometrics Section

Chair(s): Nandita Mitra, University of Pennsylvania

2:05 p.m. **Monitoring Quality Control: Can We Get Better Data?—✱**Ofer Harel, University of Connecticut; Enrique F. Schisterman, National Institute of Child Health and Human Development; Albert Vexler, National Institute of Child Health and Human Development; Marcus Ruopp, National Institute of Child Health and Human Development

2:20 p.m. **Measurement Error Adjusted Effects of A-Bomb Radiation Dose on Cancer Risk—✱**Carmen D. Tekwe, University at Buffalo; Randolph L. Carter, University at Buffalo; Austin Miller, University at Buffalo; Harry Cullings, Radiation Effects Research Foundation; John Cologne, Radiation Effects Research Foundation; Yoichiro Kusunoki, Radiation Effects Research Foundation; Kazuo Neriishi, Radiation Effects Research Foundation; Sachiyo Funamoto, Radiation Effects Research Foundation; Norman P. Ross, Radiation Effects Research Foundation

2:35 p.m. **Assessing the Impact of Measurement Error in Modeling Change: A Sensitivity Analysis Approach—✱**David Yanez, University of Washington; Thomas Lumley, University of Washington; Chengcheng Hu, Harvard University; Mose Andre, University of Washington

2:50 p.m. **Modeling Biases in Observational Data Using Bayesian Graphical Models To Combine Multiple Data Sources: Application to Low Birth-Weight and Water Disinfection Byproducts—✱**NuooTing Molitor, Imperial College, London; Chris Jackson, MRC Biostatistics Unit; Nicky Best, Imperial College, London; Sylvia Richardson, Imperial College, London

3:05 p.m. **Bounds on ACE and Unmeasured Confounding Bias in Observational Studies—✱**Tao Liu, Brown University; Joseph Hogan, Brown University; Allison DeLong, Brown University

3:20 p.m. **Misclassification Adjustment in Threshold Models for the Effects of Subject-Specific Exposure Means and Variances—✱**Chengxing Lu, Emory University; Robert H. Lyles, Emory University

3:35 p.m. **Statistical Methods for Biodosimetry in the Presence of Both Classical and Berkson Measurement Error—✱**Austin Miller, University at Buffalo; Randolph L. Carter, University at Buffalo; Harry Cullings, Radiation Effects Research Foundation; John Cologne, Radiation Effects Research Foundation; Norman P. Ross, Radiation Effects Research Foundation; Kazuo Neriishi, Radiation Effects Research Foundation; Carmen D. Tekwe, University at Buffalo

442 CC-711

Pollution and Health—Contributed

Section on Statistics and the Environment, Section on Statistics in Epidemiology, Section on Health Policy Statistics

Chair(s): Stephen W. Looney, Medical College of Georgia

2:05 p.m. **The Effect of PM Exposure on Birth Weight—✱**Simone Gray, Duke University; Alan Gelfand, Duke University; Marie Lynn Miranda, Duke University; Geeta Swamy, Duke University; Sharon Edwards, Duke University

2:20 p.m. **Informative Priors for Computing the UCL of a Set of Asbestos Measurements with Low Total Counts—✱**Bradley C. Venner, U.S. Environmental Protection Agency; Bill Brattin, Syracuse Research Corporation; Terry Schulz, Independent Contractor; Timothy Barry, U.S. Environmental Protection Agency

2:35 p.m. **Imputation of the Physical Activity Component of Gerontologic Frailty for Use in Modeling the Health Effects of Air Pollution on Older Adults in the Cardiovascular Health Study—✱**Sandrah P. Eckel, Johns Hopkins Bloomberg School of Public Health; Thomas A. Louis, Johns Hopkins University; Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health; Paulo Chaves, Johns Hopkins Bloomberg School of Public Health; Linda P. Fried, Johns Hopkins Medical Institutions; Helene G. Margolis, California Department of Public Health

2:50 p.m. **Developing New Methodologies To Estimate the Proportion of Homes in a Region with Indoor Radon Levels Exceeding a Reference Threshold—✱**Patrick E. Murphy, University College Dublin; Catherine Organo, Radiological Protection Institute of Ireland

3:05 p.m. **Modeling Particulate Matter Emissions Indices at the Hartsfield-Jackson Atlanta International Airport—✱**Lu Gan, Missouri University of Science and Technology; Gary L. Gadbury, Kansas State University; Prem Lobo, Missouri University of Science and Technology; Philip D. Whitefield, Missouri University of Science and Technology; Donald E. Hagen, Missouri University of Science and Technology

3:20 p.m. **Assessing Water Pollution Using Lognormal Distribution in a Generalized Linear Modeling Framework—✱**Obisesan O. Kazeem, University of Ibadan

3:35 p.m. **Floor Discussion**

443 CC-710

● Complex Data Issues in Marketing Research—Contributed

Section on Statistics and Marketing

Chair(s): Dmitri V. Kuznetsov, Intellidyn Corp.

2:05 p.m. **The Application of Poisson Race Model to Conjoint Choice Study with Multiple Alternatives—✱**Shiling Ruan, U.S. Food and Drug Administration; Steven N. MacEachern, The Ohio State University; Thomas Otter, Goethe University Frankfurt; Angela M. Dean, The Ohio State University

2:20 p.m. **Predictive CRM in a B2B Context: Model-Based Cross- and Up-Selling Support for Guiding Recommendations and Improving Sales—✱**Lynd Bacon, Loma Buena Associates, Ltd.; Peter Lenk, The Stephen M. Ross Business School, University of Michigan; Michael Troutman, C.M. Troutman Marketing Analytics and Consulting; Ashwin Sridhar, ZLINQ Solutions, Inc.

2:35 p.m. **Choice Experiments for Estimating Main Effects and Two-Factor Interactions Inclusive of One Factor—✱**Pallavi Chitturi, Temple University; Jing Chen, Temple University

2:50 p.m. **Determining the Impact of Attitudinal Drivers on Customer Satisfaction in the Presence of Missing Data—**Kurt A. Pflughoeft, Market Probe; ✱Jorge A. Alejandro, Market Probe

3:05 p.m. **Retaining Incomplete Data Records for Market Research Estimation: CART Decision Tree Imputation Techniques for Data Sets with Missing Values—✱**Ingo Bentrott, University of Technology, Sydney

3:20 p.m. **Structural Equation Model To Diagnose Success Factors for the Commercialization of Information Technology Project—✱**So Young Sohn, Yonsei University; Hong Sik Kim, Yonsei University

3:35 p.m. **Floor Discussion**

444 CC-701

From the Golden Ratio to Elephants: A Collection of Viewpoints on Teaching Statistics—Contributed

Section on Statistical Education

Chair(s): Ananda A. Jayawardhana, Pittsburg State University

2:05 p.m. **Golden-Ratio Forms in Piano Sonatas by Mozart and Haydn: A Statistical Analysis—✱**Jesper Rydén, Uppsala University

2:20 p.m. **Correlation Between the Sample Mean and Variance—✱**Ram Shanmugam, Texas State University

2:35 p.m. **Student Attitudes Toward Statistics at Augsburg College—**Milo Schield, W.M. Keck Statistical Literacy Project; ✱Cynthia Schield, W.M. Keck Statistical Literacy Project

2:50 p.m. **A Study on the Association Between Extraneous Variables and Student Evaluations—✱**Lewis Shoemaker, Millersville University of Pennsylvania

3:05 p.m. **Highlights of Thinking Statistically: Elephants Go to School—✱**Sarjinder Singh, The University of Texas at Brownsville/Texas Southmost College

3:20 p.m. **Opportunities with the Journal *Teaching Statistics*—✱**Roger W. Johnson, South Dakota School of Mines & Technology

3:35 p.m. **A Review of Poster Presentations Displayed at JSM 2007—✱**Edward R. Mansfield, The University of Alabama

445 CC-212

Variables Selection and Dimension Reduction—Contributed

Section on Statistical Computing, WNAR

Chair(s): Inbal Yahav, University of Maryland, College Park

2:05 p.m. **Principal Component Analysis and Subspace Detection Under Random Projection—✱**Qi Ding, Boston University; Eric Kolaczyk, Boston University

2:20 p.m. **Summarizing X-Ray Stellar Spectra—✱**Hyunsook Lee, Harvard-Smithsonian Center for Astrophysics; Vinay Kashyap, Harvard-Smithsonian Center for Astrophysics

2:35 p.m. **Destructive Effect of the Noise in Principal Component Analysis—✱**Katerina Tsakiri, University at Albany; Igor G. Zurbenko, University at Albany

2:50 p.m. **Group Variable Selection via Hierarchical LASSO and Its Oracle Property—✱**Nengfeng Zhou, The University of Michigan; Ji Zhu, The University of Michigan

3:05 p.m. **Model Assessment and Selection for Latent Transition Model—✱**Hsiu-Ching Chang, Michigan State University; Hwan Chung, Michigan State University

3:20 p.m. **Early Thresholding for High-Dimensional Linear Regression and Variable Selection—✱**Xinge J. Jeng, Purdue University; Michael Y. Zhu, Purdue University

3:35 p.m. **Shrinkage and Model Selection with Correlated Variables via Weighted Fusion—✱**Zhongyin J. Daye, Purdue University; Xinge J. Jeng, Purdue University

446 CC-210

Topics in Regression and Dimension Reduction—Contributed

Section on Physical and Engineering Sciences, Section on Nonparametric Statistics, Section on Quality and Productivity

Chair(s): Kary Myers, Los Alamos National Laboratory

2:05 p.m. **On Dirichlet Regression Residuals—✱**Rafiq Hijazi, United Arab Emirates University

2:20 p.m. **Cluster-Based Lack-of-Fit Test for Nonlinear Regression Models—✱**Wijith P. Munasinghe, Kansas State University; James W. Neill, Kansas State University; Forrest R. Miller, Kansas State University

2:35 p.m. **Coresidual Analysis of Linear Models—✱**George R. Terrell, Virginia Polytechnic Institute and State University

2:50 p.m. **Estimation and Testing of Linear Treatment Effects from Matched Pair Data—✱**Cornelis J. Potgieter, University of Johannesburg; Fred Lombard, University of Johannesburg

3:05 p.m. **The Use of Singular Value Decomposition and Infrared Spectroscopy To Study Protein Folding Dynamics—✱**Taylor Pressler, Mount Holyoke College

3:20 p.m. **The Determinant Ratio as a Standardized Index of Data Volume—✱**Jason van der Horst, Brigham Young University; Benjamin Heuston, Brigham Young University; Scott Cannon, Brigham Young University; Brian Mead, Brigham Young University; Bruce L. Brown, Brigham Young University

3:35 p.m. **Floor Discussion**

447 CC-112

● ▲ Nonparametric and Semiparametric Regression and Related Problems—Contributed

Section on Nonparametric Statistics, IMS

Chair(s): Yuedong Wang, University of California, Santa Barbara

2:05 p.m. **Spline Confidence Bands for Variance Function via Oracle Efficient Estimation—✱**Qiongxia Song, Michigan State University; Lijian Yang, Michigan State University

2:20 p.m. **Inference on Random Effect Variances with Application to the Assessment of Nonlinearity—✱**Sonja Greven, Johns Hopkins University; Ciprian M. Crainiceanu, Johns Hopkins University; Fabian Scheipl, Ludwig-Maximilians-University Munich; Helmut Küchenhoff, Ludwig-Maximilians-University Munich; Annette Peters, Helmholtz Zentrum München

2:35 p.m. **Smooth Regression in Model Selection-Shrinkage and Average—✱**Jingyi Liu, University of California, Davis

2:50 p.m. **AdaSmoothing: Adaptive Smoothing Spline and Its Applications—✱**Aijun Zhang, The University of Michigan

3:05 p.m. **Local Polynomial Composite Quantile Regression—✱**Bo Kai, The Pennsylvania State University; Runze Li, The Pennsylvania State University; Hui Zou, The University of Minnesota

3:20 p.m. **Design-Adaptive Local Polynomial Estimator for the Errors-in-Variables Problem—✱**Aurore Delaigle, University of Bristol; Jianqing Fan, Princeton University; Raymond Carroll, Texas A&M University

3:35 p.m. **A Simple Semiparametric Method for Estimating ARCH Models—✱**Li Wang, The University of Georgia; Lijian Yang, Michigan State University; Jianhua Huang, Texas A&M University

448 CC-706

● ▲ Bayesian Regression Models and Variable Selection Methods—Contributed

Section on Bayesian Statistical Science

Chair(s): Hongxiao Zhu, Rice University

2:05 p.m. **Bayesian Generalized Linear Models with Variable Selection for Various Phenotypes—✱**Deukwoo Kwon, National Cancer Institute; Ruth Pfeiffer, National Cancer Institute; Marina Vannucci, Rice University; Maria T. Landi, National Cancer Institute

2:20 p.m. **Bayesian Analysis of Longitudinal Binary Data Using Markov Regression Models with Skewed Links—**Seongho Song, University of Cincinnati; ✱Younshik Chung, Pusan National University; Dipak Dey, University of Connecticut; Chansoo Kim, Kongju National University; Junghoon Jang, Korea Food and Drug Administration

2:35 p.m. **Bayesian Variable Selection for Logistic Regression with Misclassification—✱**Stephanie Powers, Baylor University; James Stamey, Baylor University

2:50 p.m. **Wavelet-Based Bayesian Estimation of Partially Linear Regression Models with Long Memory Errors—✱**Kyungduk Ko, Boise State University; Leming Qu, Boise State University; Marina Vannucci, Rice University

3:05 p.m. **A Bayesian Conceptual Predictive Statistic—✱**Andrew Neath, Southern Illinois University Edwardsville; Joseph E. Cavanaugh, The University of Iowa

3:20 p.m. **Floor Discussion**

449 CC-101

Regularized Estimation and Inferential Procedures with Applications to Genomics—Contributed

Biometrics Section, Section on Nonparametric Statistics

Chair(s): Michael Zhang, The Pennsylvania State University

2:05 p.m. **Boosting Accelerated Failure Time Models for Survival Data with High-Dimensional Covariates—✱**Zhu Wang, Yale University; C. Y. Wang, Fred Hutchinson Cancer Research Center

2:20 p.m. **Augmenting the Bootstrap To Analyze High-Dimensional Genomic Data—✱**Svitlana Tyekucheva, The Pennsylvania State University; Francesca Chiaromonte, The Pennsylvania State University

2:35 p.m. **A General Framework for Bilevel Variable Selection—✱**Patrick Breheny, The University of Iowa; Jian Huang, The University of Iowa

2:50 p.m. **Dimension Reduction in SNP Data Analysis—✱**Adarsh Joshi, The University of Texas M.D. Anderson Cancer Center; Jianhua Hu, The University of Texas M.D. Anderson Cancer Center; Valen E. Johnson, The University of Texas M.D. Anderson Cancer Center

3:05 p.m. **Floor Discussion**

450 CC-204

Longitudinal, Clustered, and Correlated Data Analysis—Contributed

Biometrics Section, Biopharmaceutical Section, Section on Survey Research Methods

Chair(s): Igor Melnykov, Colorado State University, Pueblo

2:05 p.m. **Measuring Impact of Nonignorability in Longitudinal Data with Nonmonotone Nonresponse—✱**Hui Xie, University of Illinois at Chicago; Yi Qian, Northwestern University

2:20 p.m. **A Two-Stage Approach to Survival Analysis with Time-Dependent Covariates from a Time-Varying Means Model: Application of Time to Initiation of Therapy in HIV-Infected Women vs. Men—✱**Amanda A. Allshouse, Health Sciences Center University of Colorado Denver; Samantha MaWhinney, Health Sciences Center University of Colorado Denver; William Feser, Health Sciences Center University of Colorado Denver; Amie Meditz, Health Sciences Center University of Colorado Denver; Martin Markowitz, Rockefeller University; Susan Little, University of California, San Diego; Frederick Hecht, University of California, San Francisco; Eric Daar, Harbor UCLA Medical Center; Ann Collier, University of Washington; Joseph Margolick, Johns Hopkins University; Michael Kilby, The University of Alabama; Jean-Pierre Routy, McGill University Health Center; Brian Conway, The University of British Columbia; John Kaldor, National Centre for HIV Epidemiology and Clinical Research; Jay Levy, University of California, San Francisco; Robert Schooley, University of California, San Diego; D. A. Cooper, National Centre for HIV Epidemiology and Clinical Research; Bruce Walker, Partners AIDS Research Center; Douglas Richman, University of California, San Diego; Elizabeth Connick, Health Sciences Center University of Colorado Denver

2:35 p.m. **Weighting Method for Binary Longitudinal Data with Incomplete Covariates and Outcomes Incorporating Auxiliary Information—✱**Kennedy N. Otwombe, University of the Witwatersrand; Jacky Galpin, University of the Witwatersrand

2:50 p.m. **Variance Estimation for Correlated Data—✱**Eugenio Andraca-Carrera, The University of North Carolina at Chapel Hill

3:05 p.m. **Floor Discussion**

451 CC-708

Portfolio Analysis, Exchange Rates, Microstructure, and GARCH Models—Contributed

Business and Economics Statistics Section

Chair(s): Christopher H. Morrell, Loyola College in Maryland

2:05 p.m. **Robust Portfolio Selection—✱**Michael Schyns, University of Liege

2:20 p.m. **Portfolio Choice in Retirement: Health Risk and the Demand for Annuities, Housing, and Risky Assets—✱**Motohiro Yogo, University of Pennsylvania

2:35 p.m. **Applications of Statistics in Finance Using the Statistics Online Computational Resource (SOCR)—✱**Nicolas Christou, University of California, Los Angeles; Ivo D. Dinov, University of California, Los Angeles

2:50 p.m. **Market Depth in Agricultural Futures Markets—✱**Julieta Frank, University of Illinois at Urbana-Champaign; Philip Garcia, University of Illinois at Urbana-Champaign

3:05 p.m. **The Information Content of Trades: A Class of Market Microstructure Models—✱**Anna Valeva, Western Illinois University

3:20 p.m. **Orthogonal GARCH Models with Structure Breaks—✱**Lingyu Zheng, Temple University

3:35 p.m. **Floor Discussion**

452 CC-104

● Statistical Issues in Medical Research—Contributed

Biopharmaceutical Section, WNAR, Section on Health Policy Statistics, Biometrics Section

Chair(s): Fang Liu, Merck Research Laboratories

2:05 p.m. **'Promotion Bias' in Clinical Research Design, Analysis, and Reporting: A Challenge to Statistical Science—✱**Peter B. Imrey, The Cleveland Clinic and Case Western Reserve University

2:20 p.m. **Statistical Considerations for Comparability Studies—✱**Frank Ye, Amgen, Inc.; Steve Mitchell, Amgen, Inc.

2:35 p.m. **The Use of Control Charts for the Prospective Monitoring of Long-Term Vaccine Efficacy—✱**J. Brooke Marshall, Merck Research Laboratories; David Radley, Merck Research Laboratories; Lisa C. Lupinacci, Merck Research Laboratories

2:50 p.m. **Meta-Regression of Placebo Response—**✱Dawn Odom, RTI Health Solutions; Jianmin Wang, RTI Health Solutions; William Irish, RTI Health Solutions

3:05 p.m. **Acceptance Criteria in the Evaluation of Blood Products—**✱Tie-Hua Ng, U.S. Food and Drug Administration

3:20 p.m. **Roles of Meta-Analysis in Global Drug Development—**✱Peter H. Zhang, Otsuka Pharmaceutical Development & Commercialization, Inc.; Rose Hu, Fast-Track Drugs and Biologics

3:35 p.m. **Floor Discussion**

Contributed Poster Presentations 2:00 p.m.–3:50 p.m.

453 CC-F Lobby

Contributed Poster Presentations—Contributed

Biometrics Section, Biopharmaceutical Section, Section on Bayesian Statistical Science, Section on Quality and Productivity, Section on Risk Analysis, Section on Statistics and the Environment, Section on Statistics in Sports

Organizer(s): John Castelloe, SAS Institute Inc.

Chair(s): John Castelloe, SAS Institute Inc.

Bayesian statistics, hierarchical models

61 **Sample Size Estimation for Equivalence and Noninferiority Tests—**✱Jie Wang, Baylor University

62 **Bayesian Inference on Relative Risk Incorporating Multiple Covariates—**Qianqiu Li, Wyeth Research; ✱Yonggang Zhao, Wyeth Research

63 **Bayesian Data Assimilation for Parameter Estimation in Hydrological Systems—**✱Darl D. Flake, II, Utah State University; Mevin B. Hooten, Utah State University; Luis A. Bastidas, Utah State University

64 **Bayesian Nonparametric Polya Tree Mixture Models with Application to Random Effects Meta-Analysis—**✱Adam Branscum, University of Kentucky; Timothy Hanson, The University of Minnesota

65 **A Bayesian Bivariate Random-Effects Meta-Analysis for Two Correlated Outcomes Using Individual Patient Data—**Ying Yang, Bristol-Myers Squibb Company; ✱Kao-Tai Tsai, Bristol-Myers Squibb Company

66 **Assessing Local Model Fit in Bayesian Regression Models Using the Partitioned Deviance Information Criterion—**✱David Wheeler, Emory University; Lance Waller, Emory University; DeMarc A. Hickson, University of Mississippi Medical Center

67 **Bayesian Objective Testing of Hardy-Weinberg Equilibrium—**✱Brenda Betancourt, University of Puerto Rico; Maria E. Perez, University of Puerto Rico

68 **A Sequential Bayesian Approach to Distributed Source Localization in Wireless Sensor Networks—**✱Soma Dhavala, Texas A&M University; Rajesh Talluri, Texas A&M University; Aleksandar Dogandzic, Iowa State University

Environmetrics, ecology, agriculture, wildlife management

69 **It Really Is Getting Warmer—**✱Jun Lu, Texas Tech University; Anton Kliewer, Texas Tech University; Clyde Martin, Texas Tech University

70 **Are We Getting More Rain?—**✱Anton Kliewer, Texas Tech University; Clyde Martin, Texas Tech University

71 **Comparison of Soil Temperatures at Agricola and Pascagoula, MS—**✱Madhuri S. Mulekar, University of South Alabama; Sytske Kimball, University of South Alabama; Jacob V. Sowell, University of South Alabama

72 **Generalized Linear Modeling Approach to Stochastic Weather Generators—**✱Eva M. Furrer, National Center for Atmospheric Research; Richard W. Katz, National Center for Atmospheric Research

73 **Association Between Fine Indoor Particulate Pollution and Pulmonary Function—**✱Robert L. James, Rho, Inc.; Agustin Calatroni, Rho, Inc.; Herman Mitchell, Rho, Inc.

74 **Estimating Limit of Detection in Bioassay—**✱Changjian Jiang, Monsanto Company

75 **An International Comparison of Drinking Water Regulations—**✱Eric Guttorp, University of Washington; Peter Guttorp, University of Washington; Duru Altug, University of Washington

76 **An Adaptive Sampling Procedure for Estimating Heavy Metal Pollutants of Ground Water from Soil—**✱Ismaila A. Adeleke, University of Lagos; Ray Okafor, University of Lagos; Ebeneezer O. Esan, University of Lagos; Kehinde Olayinka, University of Lagos; Aderonke Oyeyiola, University of Lagos; Anthanasius Opara, University of Laos

77 **A Bootstrap Model for Estimating the Concentration of Some Heavy Metals To Determine Contaminant Risk to Ground Water from Soil—**Ismaila A. Adeleke, University of Lagos; ✱Ray Okafor, University of Lagos; Ebeneezer O. Esan, University of Lagos; Kehinde Olayinka, University of Lagos; Aderonke Oyeyiola, University of Lagos; Shakirudeen Odunuga, University of Lagos; Dallah Hamadu, University of Lagos

78 **Optimization of Nonlinear Parameters Used To Model Rice Drying—✱**Andy Mauromoustakos, University of Arkansas; Terry Siebenmorgen, University of Arkansas; Vir Gayanilo, University of Arkansas; Rasty Bautista, University of Arkansas

79 **Challenges and Solutions for Assessing the Long-Term (1989–2007) Effects of a Marine Oil Terminal in Alaska on the Marine Sediment Environment—✱**Arny L. Blanchard, University of Alaska Fairbanks

80 **Density Function Solutions of Population Size Models—✱**James Matis, Texas A&M University; Thomas Kiffe, Texas A&M University; Timothy Matis, Texas A&M University; Wopke van der Werf, Wageningen University; Alejandro Costamagna, The University of Minnesota; G. Jerry Michels, Jr., Texas A&M University

QC, operation research, risk assessment

81 **An Improved Method for Retrospective Analysis of Multivariate Individual Observations—✱**Joe H. Sullivan, Mississippi State University

82 **Monitoring Simultaneously the Mean Vector and Covariance Matrix in Process Industries—✱**John C. Young, McNeese State University; Robert L. Mason, Southwest Research Institute; Youn-Min Chou, The University of Texas at San Antonio

83 **Using Stepwise Discriminant Analysis as a Post-Hoc Procedure to a Significant Hotelling's T2 Control Chart—**Jay Schaffer, University of Northern Colorado; ✱Emily Pollock, University of Northern Colorado

84 **Development of Chart Parameters and ARLS for the Expansion of the MEWMS and MEWMV with Individual Observations—**Jay Schaffer, University of Northern Colorado; ✱Chad Eshelman, University of Northern Colorado

85 **Reduction in Residential Energy Consumption—✱**Seema Seema, McNeese State University; Rebekah A. Griffith, McNeese State University; D. John Griffith, Jr., McNeese State University

86 **Start-Up Demonstration Tests Using Scans and Intermediate Performance Levels—✱**William S. Griffith, University of Kentucky; Michelle Smith, Eastern Kentucky University; Ken Dutch, Eastern Kentucky University

87 **Sensitivity to Distance, Baseline Distributions, and Forecast Evaluation in Decision and Risk Analysis—✱**Victor R. Jose, Duke University; Robert Nau, Duke University; Robert Winkler, Duke University

Sports, art, entertainment

88 **Contracts and Performance in Major League Baseball—✱**Elaine Allen, Babson College; Julia Seaman, Pomona College

89 **Simulating a College Basketball Universe—✱**Robert B. Davis, Miami University

90 **SiSSYS: Student Work from a Capstone Course Using Sports Data - Part I—✱**Robin Lock, St. Lawrence University; Travis Atkinson, St. Lawrence University; Michael Schuckers, St. Lawrence University

91 **SiSSYS: Student Work from a Capstone Course Using Sports Data - Part II—✱**Travis Atkinson, St. Lawrence University; Robin Lock, St. Lawrence University; Michael Schuckers, St. Lawrence University

92 **Determination and Analysis of Factors Determining the Outcomes of National Football League Games—✱**Christopher Cohea, Oklahoma State University; Mark E. Payton, Oklahoma State University

93 **Analysis of Motorcycle Grand Prix Lap Times—✱**Leanne Streja, University of California, Los Angeles; Robert E. Weiss, University of California, Los Angeles; Catherine A. Sugar, University of California, Los Angeles

94 **A Model of Playing Time for Pitchers in Major League Baseball—✱**Michael Greene, Deloitte Consulting, LLP

Invited Sessions 4:00 p.m.–5:50 p.m.

454 CC-Four Seasons Ballroom

COPSS Awards and Fisher Lecture—Invited

ASA, ENAR, IMS, SSC, WNAR, Committee of Presidents of Statistics Societies, Biometrics Section

Organizer(s): Madhuri S. Mulekar, University of South Alabama
Chair(s): Jessica Utts, University of California, Irvine

4:00 p.m. **Presentation of Awards—✱**Jessica Utts, University of California, Irvine

4:20 p.m. **The Population Science Research Agenda and the Women's Health Initiative—✱**Ross L. Prentice, Fred Hutchinson Cancer Research Center/The University of Washington

5:30 p.m. **Floor Discussion**

THURSDAY, AUGUST 7

Tours

TR12 - Rocky Mountain National Park/Grand Lakes Tour
8:00 a.m.–5:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

TR11 - Coors Brewery Tour
2:00 p.m.–5:00 p.m. CC-South Shuttle Bus Drop Off/14th & California

Committee/Business Meetings & Other Activities

7:00 a.m.–10:30 a.m. CC-A Lobby
Cyber Center

7:30 a.m.–10:00 a.m. CC-A Lobby
ASA Marketplace

7:30 a.m.–10:30 a.m. CC-A Lobby
JSM Main Registration

7:30 a.m.–10:30 a.m. CC-A Lobby
ASA Membership/Special Assistance/Press Desk

8:00 a.m.–9:30 a.m. CC-208
Council of Sections Meeting 2
Chair(s): Linda Gage, California Department of Finance

8:00 a.m.–6:00 p.m. CC-Main Lobby
Denver Visitors Information Center

10:00 a.m.–11:30 a.m. CC-208
Council of Sections Governing Board Meeting 2 (closed)
Chair(s): Linda Gage, California Department of Finance

Invited Sessions 8:30 a.m.–10:20 a.m.

455 **CC-112**

● Time Series Analysis via Mechanistic Models—Invited

Biometrics Section

Organizer(s): Edward L. Ionides, The University of Michigan
Chair(s): Carles Breto, Universidad Carlos III de Madrid

8:35 a.m. **Fitting Embedded Population Dynamics Models to Animal Abundance Time Series Data—**✱Ken B. Newman, U.S. Fish and Wildlife Service; Carmen Fernandez, Instituto Espanol de Oceanografia; Len Thomas, University of St Andrews; Steve Buckland, University of St Andrews

9:00 a.m. **Discovering Hidden Latent Components in Continuous-Time Dynamical Systems—**✱Giles Hooker, Cornell University

9:25 a.m. **A Bayesian SEIR Approach to Modeling Epidemics—**✱Vanja Dukic, The University of Chicago; Greg Dwyer, The University of Chicago; Bret Elderd, The University of Chicago

9:50 a.m. Disc: Edward L. Ionides, The University of Michigan

10:10 a.m. **Floor Discussion**

456 **CC-203**

● ▲ Reducing Disclosure Risks While Reaching Out to the Data Needs of the Public—Invited

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): Tom Krenzke, Westat, Inc.
Chair(s): Marilyn Seastrom, National Center for Education Statistics

8:35 a.m. **Releasing Microdata: Disclosure Risk Estimation, Data Masking, and Assessing Utility—**✱Natalie Shlomo, University of Southampton

9:00 a.m. **Web-Based Data Query Tools: Meeting User Needs—**✱J. Neil Russell, National Center for Education Statistics

9:25 a.m. **New Ways To Provide More and Better Data to the Public While Still Protecting Confidentiality—**✱Laura V. Zayatz, U.S. Census Bureau

9:50 a.m. Disc: Jean-Louis Tambay, Statistics Canada

10:10 a.m. **Floor Discussion**

457 CC-104

● ▲ Analysis and Sample Size for Cluster Samples: Community-Based and Group-Randomized Designs—Invited

ENAR, Section on Survey Research Methods, WNAR, Biometrics Section

Organizer(s): Keith E. Muller, University of Florida

Chair(s): Keith E. Muller, University of Florida

8:35 a.m. **Estimation and Inference for Group-Randomized Trials with a Binary Outcome—**✱Sherri L. Pals, Centers for Disease Control and Prevention

8:55 a.m. **Power for Clustered Gaussian Data—**✱Jacqueline L. Johnson, Novartis Pharmaceuticals; Keith E. Muller, University of Florida; Diane J. Catellier, The University of North Carolina at Chapel Hill; Mildred M. Maldonado-Molina, University of Florida; Kelli A. Komro, University of Florida

9:15 a.m. **Estimation and Inference for Clustered Gaussian Data—**✱Diane J. Catellier, The University of North Carolina at Chapel Hill; Jacqueline L. Johnson, Novartis Pharmaceuticals; Keith E. Muller, University of Florida

9:35 a.m. **Internal Pilot Designs for Cluster Samples—**✱Christopher S. Coffey, The University of Alabama at Birmingham; Matthew J. Gurka, University of Virginia; Keith E. Muller, University of Florida

9:55 a.m. Disc: David M. Murray, The Ohio State University

10:15 a.m. **Floor Discussion**

458 CC-701

● ▲ Data Depth–Based and Related Nonparametric Multivariate Procedures—Invited

Section on Nonparametric Statistics, IMS

Organizer(s): Yijun Zuo, Michigan State University

Chair(s): Ronald Randles, University of Florida

8:35 a.m. **Nonparametric Outlier Identification in Multivariate and Functional Data Settings and Beyond—**✱Robert Serfling, The University of Texas at Dallas

9:05 a.m. **Data Depth–Based Inference Procedures That Outperform Classical T (or T^2 in High D) Procedures—**✱Yijun Zuo, Michigan State University

9:35 a.m. **Data Depth–Based Nonparametric Methods for Multivariate Right-Censored Observations—**✱Shojaeddin Chenouri, University of Waterloo

10:05 a.m. **Floor Discussion**

459 CC-206

▲ Statistical Aspects of Regional Climate Modeling—Invited

Section on Statistics and the Environment, WNAR

Organizer(s): Richard L. Smith, The University of North Carolina at Chapel Hill

Chair(s): Richard L. Smith, The University of North Carolina at Chapel Hill

8:35 a.m. **The North American Regional Climate Assessment Program (NARCCAP): Overview and Early Results—**✱Linda O. Mearns, National Center for Atmospheric Research

9:05 a.m. **Models and Models: Combining Regional Climate Model Output via Multivariate Spatial Models—**✱Stephan Sain, National Center for Atmospheric Research

9:35 a.m. **Investigating Concurrently High Values of Convective Available Potential Energy (CAPE) and Wind Shear in Global Reanalysis and Climate Model Output—**✱Eric Gilleland, National Center for Atmospheric Research

10:05 a.m. **Floor Discussion**

460 CC-205

● ▲ Statistical Measures Can Help Restore Confidence in U.S. Elections—Invited

Social Statistics Section, Section on Government Statistics, Section on Survey Research Methods, Scientific and Public Affairs Advisory Committee

Organizer(s): Mary Batcher, Ernst & Young LLP

Chair(s): Mary Batcher, Ernst & Young LLP

8:35 a.m. **National Election Scorecard—**Fritz Scheuren, The University of Chicago; ✱Edward Mulrow, National Opinion Research Center

9:05 a.m. **Voter Confidence and the Election Day Voting Experience—**✱J. Quin Monson, Brigham Young University; Kelly Patterson, Brigham Young University; David Magleby, Brigham Young University; Ryan Claassen, Kent State University

9:35 a.m. **How ASA Members Are Helping States Improve Elections—✱**Arlene S. Ash, Boston University

10:05 a.m. **Floor Discussion**

461 CC-710

● ▲ Symbolic Data: Theory and Methods—Invited

IMS, Section on Nonparametric Statistics

Organizer(s): Anand N. Vidyashankar, Cornell University

Chair(s): Matthieu Vrac, Ecole Polytechnique

8:35 a.m. **Symbolic Data Examples, Analytic Aspects, and SODAS Software—✱**Edwin Diday, Paris Dauphine University

9:00 a.m. **Mixture Modeling of Symbolic Data—** Matthieu Vrac, Ecole Polytechnique; Edwin Diday, Paris Dauphine University; ✱Lynn Billard, The University of Georgia

9:25 a.m. **Regression Models for Symbolic Interval-Valued Data—✱**Francisco de A.T. De Carvalho, Centro de Informatica - CIn/UFPE; Eufrasio de A. Lima Neto, Centro de Informatica - CIn/UFPE

9:50 a.m. Disc: Anand N. Vidyashankar, Cornell University

10:10 a.m. **Floor Discussion**

462 CC-703

● ▲ Statistics in Biopharmaceutical Research: The ASA's New Journal—Invited

Statistics in Biopharmaceutical Research Journal, Biopharmaceutical Section, WNAR

Organizer(s): Joseph Heyse, Merck Research Laboratories

Chair(s): Joseph Heyse, Merck Research Laboratories

8:35 a.m. **A Conditional T Suite of Tests for Identifying Differentially Expressed Genes in a DNA Microarray Experiment with Little Replication—✱**Dhammika Amaratunga, Johnson & Johnson Pharmaceutical R&D, LLC; Javier Cabrera, Rutgers, The State University of New Jersey

9:00 a.m. **Methods for Assessing Improvement in Specificity When a Biomarker Is Combined with a Standard Screening Test—✱**Pamela A. Shaw, National Institute of Allergies and Infectious Diseases; Margaret S. Pepe, Fred Hutchinson Cancer Research Center; Todd A. Alonzo, University of Southern California; Ruth Etzioni, Fred Hutchinson Cancer Research Center

9:25 a.m. **Nonproportional Hazards and the Power of Sequential Tests—✱**Qi Jiang, Amgen, Inc.; Steven Snapinn, Amgen, Inc.

9:50 a.m. Disc: Robert O'Neill, U.S. Food and Drug Administration

10:10 a.m. **Floor Discussion**

463 CC-705

● ▲ Communicating Statistics: Speaking Out and Reaching Out—Invited

Section on Statistical Consulting, Section on Quality and Productivity, Section on Statistics in Epidemiology, Section on Teaching Statistics in the Health Sciences, WNAR

Organizer(s): Stephan Ogenstad, Statogen Consulting LLC

Chair(s): Brenda Gaydos, Eli Lilly and Company

8:35 a.m. **Acquiring Knowledge and Deep Understanding of an Application Field—✱**Stephan Ogenstad, Statogen Consulting LLC

9:00 a.m. **Communicating Statistics to Nonstatisticians Clearly and Persuasively—✱**Lothar T. Tremmel, Cephalon

9:25 a.m. **Attributes of Effective Statistical Leadership in Organizations—✱**Thomas W. Dobbins, Merck & Co., Inc.

9:50 a.m. Disc: James J. Grady, The University of Texas Medical Branch

10:10 a.m. **Floor Discussion**

Invited Panel 8:30 a.m.–10:20 a.m.

464 **CC-108**

● ▲ Meeting Within a Meeting: Promoting Quantitative Literacy by Helping Mathematics and Science Teachers Improve Their Skills in Teaching Statistics—Invited

Advisory Committee on Teacher Enhancement, Section on Statistical Education

Organizer(s): Paul J. Fields, Brigham Young University

Chair(s): Paul J. Fields, Brigham Young University

Panelists: ✱Katherine T. Halvorsen, Smith College

✱Nari Carter, Brigham Young University

✱Aleisha Coleman, Navigator Pointe Academy

✱Jenna Mortensen, Brigham Young University

✱Rebecca Nichols, The American Statistical Association

10:15 a.m. **Floor Discussion**

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

465 **CC-111**

● Challenges and Opportunities for Using R and Other Software in Introductory and Intermediate Probability and Statistics Courses—Topic-Contributed

Section on Statistical Education, Section on Nonparametric Statistics, Section on Teaching Statistics in the Health Sciences

Organizer(s): Michael D. Larsen, Iowa State University

Chair(s): Michael D. Larsen, Iowa State University

8:35 a.m. **Using R in Probability and Mathematical Statistics Courses—**✱Amy Froelich, Iowa State University

8:55 a.m. **Introductory and Advanced Statistics with a Spreadsheet Interface and Spreadsheet Tools—**✱Richard M. Heiberger, Temple University; Erich Neuwirth, University of Vienna

9:15 a.m. **'Software as a Service': Providing Open Access to Statistical Software Using ASP.NET—**✱Neil Polhemus, StatPoint Technologies, Inc.

9:35 a.m. **Experiences Using R To Teach Undergraduate Statistics Courses: Enabling Critical Thinking—✱**Philip Turk, West Virginia University

9:55 a.m. **Floor Discussion**

466 CC-207

● ▲ Nonresponse Bias and Callbacks in Household and Establishment Surveys—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Organizer(s): John L. Eltinge, Bureau of Labor Statistics

Chair(s): Brian Harris-Kojetin, U.S. Office of Management and Budget

8:35 a.m. **Models for Callback Procedures and Mode Effects in Household and Establishment Surveys—✱**John L. Eltinge, Bureau of Labor Statistics

8:55 a.m. **Efficiency and Bias in Differential Contact Strategies—✱**Stephanie Eckman, National Opinion Research Center/JPSM; Colm O'Muircheartaigh, The University of Chicago

9:15 a.m. **Nonresponse Bias Analysis Using Critical Item-Only Respondents for the National Survey of Recent College Graduates—✱**Donsig Jang, Mathematica Policy Research, Inc.; Xiaojing Lin, Mathematica Policy Research, Inc.; Kelly Kang, National Science Foundation

9:35 a.m. **Properties of Callback Procedures Under Moderate Deviations from Specified Models—✱**Randall Powers, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

9:55 a.m. Disc: Nancy Kirkendall, Energy Information Administration (retired)

10:15 p.m. **Floor Discussion**

467 CC-212

Bayesian Issues in Medical Devices—Topic-Contributed

Section on Bayesian Statistical Science, Biopharmaceutical Section, Section on Health Policy Statistics

Organizer(s): Roseann White, Abbott Vascular; Telba Irony, U.S. Food and Drug Administration

Chair(s): Roseann White, Abbott Vascular

8:35 a.m. **A Semiparametric Bayesian Approach to Meta-Analysis of Clinical Trials—✱**Lijuan Deng, Boston Scientific Corporation; Pulak Ghosh, Georgia State University

8:55 a.m. **Assessing the Agreement Between Two Measurements: A Bayesian Alternative to Limits of Agreement—✱**Cody Hamilton, Edwards Lifesciences

9:15 a.m. **Sample Size: When Bigger Is Not Necessarily Better—✱**Jeng Mah, American Medical Systems, Inc.

9:35 a.m. **Increasing Power for Early Stopping via Bayesian Prediction in a Medical Device Clinical Trial—✱**Andrew Mugglin, The University of Minnesota

9:55 a.m. Disc: Telba Irony, U.S. Food and Drug Administration

10:15 a.m. **Floor Discussion**

468 CC-202

Approaches to Maintaining Confidentiality and Privacy in Surveys—Topic-Contributed

Section on Government Statistics, Section on Survey Research Methods, Social Statistics Section

Organizer(s): Jonaki Bose, Substance Abuse and Mental Health Services Administration

Chair(s): Jonaki Bose, Substance Abuse and Mental Health Services Administration

8:35 a.m. **Total Confusion: Disclosure Risk Assessment for Queriable Web-Based Reporting Systems in a Public Health Context—✱**Kevin J. Konty, New York City Department of Health and Mental Hygiene

8:55 a.m. **Controlling Disclosure Risk in Synthetic Public Use Microdata: The Longitudinal Business Database—✱**Arnold Reznek, U.S. Census Bureau; John Abowd, Cornell Univeresity; Saki Kinney, Duke University; Jerome Reiter, Duke University; Javier Miranda, U.S. Census Bureau

9:15 a.m. **New Developments in the Protection of Confidential Data—✱**Sam Hawala, U.S. Census Bureau

9:35 a.m. **Selective Rounding: A Better Alternative to Conventional Rounding of Tabular Data—✱**Ramesh A. Dandekar, Energy Information Administration

9:55 a.m. **Truncated Triangular Distribution for Multiplicative Noise and Domain Estimation—✱**Jay J. Kim, National Center for Health Statistics; Dong M. Jeong, Korea National Statistical Office

10:15 a.m. **Floor Discussion**

469 CC-706

● Time Series, State Space Models, and Other Reflections on the Work of Bob Shumway—Topic-Contributed

Section on Physical and Engineering Sciences

Organizer(s): Mitchell Watnik, California State University, East Bay

Chair(s): Mitchell Watnik, California State University, East Bay

8:35 a.m. **Estimating the Selection Gradient of a Function-Valued Trait—✱**Jay H. Beder, University of Wisconsin-Milwaukee

8:55 a.m. **Estimation of Multiple Signals from Seismic Array Data—✱**Joshua Kerr, California State University, East Bay

9:15 a.m. **State-Space Discrimination and Clustering of Atmospheric Time Series Data Based on Kullback Information Measures—✱**Joseph E. Cavanaugh, The University of Iowa; Thomas Bengtsson, Bell Labs, Alcatel-Lucent

9:35 a.m. **You Make the Earth Move Under My Feet—✱**David Stoffer, University of Pittsburgh

9:55 a.m. Disc: Kathryn Prewitt, Arizona State University

10:15 a.m. **Floor Discussion**

470 CC-707

Quantifying and Hedging Operational Risk—Topic-Contributed

Section on Risk Analysis

Organizer(s): Bonnie Ray, IBM T. J. Watson Research Center

Chair(s): Susan J. Simmons, The University of North Carolina, Wilmington

8:35 a.m. **Business Process-Based Risk Analysis for Enterprise Risk Management—✱**Bonnie Ray, IBM T. J. Watson Research Center; Lea Deleris, IBM T. J. Watson Research Center; Christian Toft-Nielsen, IBM Business Performance Services; Mihir Shah, IBM Business Performance Services

8:55 a.m. **Data- and Model-Oriented Decision Support Systems for Anti-Fraud Automation—✱**Raul Moreno, Nara Niva; David Rios Insua, Universidad Rey Juan Carlos

9:15 a.m. **Service Project Risk Estimation—✱**Pu Huang, IBM T. J. Watson Research Center

9:35 a.m. **Measuring the Impact of IT Capital Investment in Reducing Operational Risk—✱**Deborah Cernauskas, IBM; Colin Lawrence, FSA

9:55 a.m. **Combining Measures of Risk Across Dependent Series—✱**Katherine B. Ensor, Rice University

10:15 a.m. **Floor Discussion**

471 CC-704

● Component-Based Structural Equation Modeling—Topic-Contributed

Section on Statistics and Marketing

Organizer(s): Michel Tenenhaus, HEC Paris

Chair(s): Anita Prinzie, The University of Manchester

8:35 a.m. **VisualGSCA: A Graphical User Interface Software Program for Generalized Structured Component Analysis—✱**Heungsun Hwang, McGill University

8:55 a.m. **Component-Based Structural Equation Modeling for Small Samples: A Comparison Between PLS, GSCA, and ULS-SEM—✱**Michel Tenenhaus, HEC Paris

9:15 a.m. **The Contribution of PLS Regression to PLS Path Modelling: Formative Measurement Model and Causality Network in the Structural Model—✱**Vincenzo Esposito Vinzi, ESSEC Business School of Paris and Singapore

9:35 a.m. **Searching for a Group Structure in PLS Structural Equation Models: PLS Typological Path Modeling—✱**Silvia Squillacciotti, EDF R&D

9:55 a.m. **The PLS-CBSEM Debate and an Investigation of Alternative Modeling Methods—✱**Irene R.R. Lu, York University; D. Roland Thomas, Carleton University; Ernest Kwan, York University; Marzena Cedzynski, Carleton University

10:15 a.m. **Floor Discussion**

472 **CC-105**

● ▲ Assessing Bias in Pre-Clinical and Clinical Diagnostic Studies—Topic-Contributed

Section on Statistics in Epidemiology, Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): Lakshmi Vishnuvajjala, U.S. Food and Drug Administration

Chair(s): Patrick Meyers, Abbott Laboratories

8:35 a.m. **Different Schemes of Verification Bias in Evaluating Medical Tests—✱**Marina V. Kondratovich, U.S. Food and Drug Administration

8:55 a.m. **Outliers in Method Comparison Studies—✱**Geraldine Rauch, Roche Diagnostics GmbH; Andrea Geistanger, Roche Diagnostics GmbH; Jurgen Timm, University of Bremen

9:15 a.m. **Partial Least Squares Observer for Detection of Breast Cancer Lesions in Images—✱**Laura Thompson, U.S. Food and Drug Administration

9:35 a.m. **Assessment of Surrogate Endpoint for Prediction of Clinical Outcome in Drug-Eluting Stent Trials—✱**Hong Wang, Boston Scientific Corporation; Don Wang, Boston Scientific Corporation; Carola Alfaro, Boston Scientific Corporation

9:55 a.m. **Exploration of Different Test Methods on Ordinal Data from Preclinical Studies—✱**Yongyi A. Yu, Boston Scientific Corporation; So Jung Imm, Boston Scientific Corporation

10:15 a.m. **Floor Discussion**

Topic-Contributed Panel 8:30 a.m.–10:20 a.m.

473 **CC-110**

Statisticians: Speaking Out and Reaching Out on Global Health—Topic-Contributed

Section on Health Policy Statistics, Section on Statistics in Epidemiology, Social Statistics Section

Organizer(s): Roger W. Hoerl, GE Global Research

Chair(s): Madhumita (Bonnie) Ghosh-Dastidar, RAND Corporation

Panelists: ✱Roger W. Hoerl, GE Global Research

✱Donna Stroup, Data for Solutions, Inc.

✱Stephen Pierson, The American Statistical Association

10:05 a.m. **Floor Discussion**

Contributed Sessions 8:30 a.m.–10:20 a.m.

474 **CC-201**

Measurement Error Models and Matrix Sampling—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): Abera Wouhib, National Center for Health Statistics

8:35 a.m. **Evaluation of Error Components in a Simulation-Based Evaluation of a Survey Procedure—✱**Moon J. Cho, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

8:50 a.m. **A Protocol Calibration Experiment in a Longitudinal Survey with Errors-in-Variables—✱**Cindy Yu, Iowa State University; Jason C. Legg, Iowa State University

9:05 a.m. **Measurement Error Models for Physical Activity Assessments with Application to NHANES—✱**Nicholas Beyler, Iowa State University; Sarah Nusser, Iowa State University; Gregory Welk, Iowa State University

9:20 a.m. **An Application of Matrix Sampling and Multiple Imputation: The Decisions Survey—**Mick P. Couper, The University of Michigan; ✱Trivellore Raghunathan, The University of Michigan; John Van Hoewyk, The University of Michigan; Sonja Ziniel, The University of Michigan

9:35 a.m. **Multiple Imputation for Latent Variables in Classical Test Theory for Cluster Samples: A Simulation Study—✱**Tiandong Li, Westat, Inc.; Robert Mislevy, University of Maryland, College Park

9:50 a.m. **Adaptive Matrix Sampling for the Consumer Expenditure Interview Survey—✱**Jeffrey M. Gonzalez, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

10:05 a.m. **Imputing Responses to Nonexistent Questions—✱**Peter Frechtel, RTI International

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475 CC-101

● Applications of Epidemiologic Models—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Akbar Zaidi, Centers for Disease Control and Prevention

8:35 a.m. **Predicting Access Rates to Substance Abuse Programs in Correctional Facilities Using Regression Trees—✱**Panagiota Kitsantas, George Mason University; Faye Taxman, George Mason University; Matthew Perdoni, George Mason University; Deanna Breslin, George Mason University

8:50 a.m. **Cross-Validation of the Patient Health Questionnaire in Patients with Coronary Heart Disease—✱**Yating Yeh, Statistics Lifesaver

9:05 a.m. **A Variable Selection Macro for Logistic Regression in the SAS-Callable SUDAAN RLOGISTIC Procedure—✱**Ruben Smith, Centers for Disease Control and Prevention

9:20 a.m. **Alcohol Consumption, BMI, and Colorectal Cancer—✱**Negasi T. Beyene, Centers for Disease Control and Prevention

9:35 a.m. **Multivariate Regression Analysis of Longitudinal Repeated Measures Data Modeling Relationships Among Weight Loss, Inflammatory Markers, and Type-2 Diabetes Mellitus—✱**Ye-Ying Cen, Hennepin County Medical Center

9:50 a.m. **Implications of Subdividing Marital Status: Are Unmarried Mothers with Partners Different from Unmarried Mothers Without Partners?—✱**Robin Young, Boston University School of Public Health; Eugene Declercq, Boston University School of Public Health

10:05 a.m. **Floor Discussion**

476 CC-210

Environmental Time Series—Contributed

Section on Statistics and the Environment

Chair(s): Jiajia Zhang, University of South Carolina

8:35 a.m. **Temporally Correlated Dirichlet Processes for Pollution Receptor Models—✱**Matthew Heaton, Duke University

8:50 a.m. **A Model-Based Approach for Clustering Time Series of Counts—✱**Sarah J. Thomas, Rice University; Bonnie Ray, IBM T. J. Watson Research Center; Katherine B. Ensor, Rice University

9:05 a.m. **Modeling Population Trends by Combining Information from Multiple Time Series—✱**Philip Dixon, Iowa State University; David Otis, Iowa State University

9:20 a.m. **Time-Frequency Analysis by Multiscale Methods with Applications to Bat Signals—✱**Minjeong Park, Seoul National University; Sinsup Cho, Seoul National University; Heeseok Oh, Seoul National University

9:35 a.m. **Evaluating Estimators of Influenza-Associated Mortality via Simulation—✱**Jian Rong, Boston University School of Public Health; Xiaopeng Miao, Boston University School of Public Health; Al Ozonoff, Boston University School of Public Health

9:50 a.m. **Additive Mixed Models for Assessing Change in Yearly Streamflow Timing Measures in the Western United States—✱**Mark C. Greenwood, Montana State University, Bozeman; Johnnie Moore, University of Montana; Joel Harper, University of Montana

10:05 a.m. **Comparing Pollution Levels Monitored at Sites Located on the U.S.-Mexico Border—✱**Herbert Lacayo, U.S. Environmental Protection Agency; Thomas Forbes, U.S. Environmental Protection Agency; Nagaraj K. Neerchal, University of Maryland, Baltimore County; Barry D. Nussbaum, U.S. Environmental Protection Agency

477 CC-702

● Statistical Methods and Applications in Defense and National Security—Contributed

Section on Statisticians in Defense and National Security

Chair(s): Jeffrey L. Solka, Naval Surface Warfare Center Dahlgren Division

8:35 a.m. **Computationally Efficient Resource Allocation for Complex System Reliability Studies—✱**Jessica Chapman, Iowa State University; Max Morris, Iowa State University; Christine Anderson-Cook, Los Alamos National Laboratory

8:50 a.m. **Development of a Forecasting Methodology for Marine Corps Equipments Demands—✱**Steven M. Rollins, Marine Corps Logistics Command

9:05 a.m. **Experiment Design and Sampling Plans for a Building Contamination and Decontamination—✱**Brett Amidan, Pacific Northwest National Laboratory; Greg F. Piepel, Pacific Northwest National Laboratory; Brett Matzke, Pacific Northwest National Laboratory

9:20 a.m. **Approximation of Data Modeled by Functions with Removable or Jump Discontinuities—✱**Patricia H. Carter, Naval Surface Warfare Center

9:35 a.m. **An Efficient Statistical Technique for Automated Band Detection in Remotely Sensed Imagery—✱**Pranab K. Banerjee, Space Dynamics Laboratory

9:50 a.m. **Automated Recognition of Pedestrian Traffic from an Unmanned Ground Vehicle—✱**Barry A. Bodt, U.S. Army Research Laboratory

10:05 a.m. **Floor Discussion**

478 CC-711

Graphics for Regression, Classification, and Dimension Reduction—Contributed

Section on Statistical Graphics, Section on Nonparametric Statistics

Chair(s): Daeyoung Kim, The Pennsylvania State University

8:35 a.m. **Location-Dispersion Plots in Quadratic Classification Problems—✱**Santiago Velilla, Universidad Carlos III De Madrid

8:50 a.m. **Small Sample Histogram Possibilities and Paradoxes—✱**James Weber, University of Illinois

9:05 a.m. **Resultant-Vector Banking of Graphical Displays: Geometry and Statistical Properties—✱**Saptarshi Guha, Purdue University; William Cleveland, Purdue University

9:20 a.m. **Regression Graphics for Bias Reduction in Observational Studies—✱**Siamak Noorbaloochi, VAMC and University of Minnesota; David Nelson, Minneapolis VA Medical Center

9:35 a.m. **The Central Limit Theorem and Structural Validity in Cluster Analysis—✱**Ryan Shatzer, Brigham Young University; Robert Bubb, Brigham Young University; Michael Lauritzen, Brigham Young University; Bruce L. Brown, Brigham Young University

9:50 a.m. **Factorial Complexity and Structural Integrity as Reflected in Graphs of Eigenvalues and Graphs of Telescoping Determinants and Traces—✱**Daniel S. Allen, Brigham Young University; Dustin Fife, Brigham Young University; Robert Bubb, Brigham Young University; Bruce L. Brown, Brigham Young University

10:05 a.m. **Floor Discussion**

479 CC-109

● Reform, Redesign, and Innovation in Teaching and Assessment of Learning—Contributed

Section on Statistical Education

Chair(s): Kirk Anderson, Grand Valley State University

8:35 a.m. **Introductory Statistics: Perspectives of Departments, Instructors, and Students—✱**Jennifer L. Green, University of Nebraska-Lincoln; Walter Stroup, University of Nebraska-Lincoln; Erin Blankenship, University of Nebraska-Lincoln

8:50 a.m. **Redesigning Entry-Level Statistics Courses Using Software—✱**Kim Denley, University of Mississippi

9:05 a.m. **Lancaster Postgraduate Statistics Centre: Creating Enterprise and Innovation in Teaching Statistics Across Disciplines—✱**Gillian Lancaster, Lancaster University

9:20 a.m. **A Modified Moore Approach to Teaching Mathematical Statistics—✱**Padraig McLoughlin, Kutztown University of Pennsylvania

9:35 a.m. **Proficiency-Based Assessment and Reassessment of Learning Objectives in an Introductory Statistics Class—✱**Michael A. Posner, Villanova University

9:50 a.m. **Using Artist CAOS Tests To Inform Classroom Instruction and Measure Student Improvement Over Two Semesters—✱**Michelle Sisto, International University of Monaco

10:05 a.m. **Readings in the Theory of Cognition for Teachers of Statistics—✱**Gary Fowler, U.S. Naval Academy

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480 CC-709

EM Algorithms and Their Applications—Contributed

Section on Statistical Computing, Section on Bayesian Statistical Science

Chair(s): Jeffrey Heath, Centre College

8:35 a.m. **A Robust Nonlinear Mixed-Effects Model Using the SAEM Algorithm—✱**Cristian Meza, Universidad de Valparaíso; Rolando de la Cruz-Mesia, Pontifícia Universidad Católica de Chile; Felipe Osorio, Universidad de Valparaíso

8:50 a.m. **On a Mixture of Skew T Distributions—✱**Wan Ju Hsieh, National Chiao Tung University; Tsung-I Lin, National Chung Hsing University

9:05 a.m. **A New Estimation Method for the Accelerated Failure Time Frailty Model—✱**Linzhi Xu, University of South Carolina

9:20 a.m. **A Simplified Stochastic Approximation Algorithm for Estimation of GLMMs—✱**Sheng-Mao Chang, National Cheng Kung University

9:35 a.m. **Comparing Variants of the EM Algorithm for Finite Mixtures of Linear Mixed Effects Models—✱**Bettina Grün, Wirtschaftsuniversität Wien

9:50 a.m. **Fast MI Estimation for the Mixture of Factor Analyzers via an ECM Algorithm—✱**Jian-hua Zhao, The University of Hong Kong; Philip L.H. Yu, The University of Hong Kong

10:05 a.m. **Floor Discussion**

481 CC-708

● Advances in Reliability and Life Testing—Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity

Chair(s): Marc Fredette, HEC Montreal

8:35 a.m. **Bayesian Analysis for Step-Stress Accelerated Life Testing Using Weibull Proportional Hazard Model—✱**Naijun Sha, The University of Texas at El Paso; Rong Pan, Arizona State University

8:50 a.m. **Planning Accelerated Degradation Tests with Random Coefficient Models—✱**Shuen-Lin Jeng, National Cheng Kung University

9:05 a.m. **Weibull Prediction Bounds in Accelerated Life Testing with Two Stress Factors—✱**Ananda A. Jayawardhana, Pittsburg State University

9:20 a.m. **The Beta-Rayleigh Distribution in Reliability Measure—✱**Alfred Akinsete, Marshall University; Charles Lowe, Marshall University

9:35 a.m. **The Weibull-Inverse Weibull Composite Distribution for Modeling Reliability Data—✱**Kahadawala Cooray, University of Nevada, Las Vegas; Sumith Gunasekera, University of Nevada, Las Vegas; Malwane Ananda, University of Nevada, Las Vegas

9:50 a.m. **Inference Models for Time-Varying, Stress-Accelerated Life Tests Using Generalized Linear Models—✱**Jinsuk Lee, Arizona State University; Rong Pan, Arizona State University

10:05 a.m. **Active Component Identification in Reliability Modeling for Complex Systems—✱**Scott Vander Wiel, Los Alamos National Laboratory; Earl Lawrence, Los Alamos National Laboratory

482 CC-204

Bayesian Methods—Contributed

Section on Bayesian Statistical Science, Section on Statistical Computing

Chair(s): Samprit Banerjee, The University of Alabama at Birmingham

8:35 a.m. **Bayesian Evaluation of Surrogate Endpoints Using Power Priors—✱**Chunyao (Amy) Feng, Amgen, Inc.; John W. Seaman, Jr., Baylor University; Stacy Lindborg, Eli Lilly and Company

8:50 a.m. **Bayesian Case Influence Measures and Applications—✱**Hyunsoon Cho, The University of North Carolina at Chapel Hill; Hongtu Zhu, The University of North Carolina at Chapel Hill; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill

9:05 a.m. **From Semi to Fully Bayes Factors in Hypothesis Testing—✱**Kai Fun Yu, National Institutes of Health; Albert Vexler, National Institute of Child Health and Human Development; Chengqing Wu, Yale University

9:20 a.m. **Effect of Hyperparameters in the Normal Conjugate Model on Posterior Estimates—✱**Susan Alber, The University of Texas M.D. Anderson Cancer Center; J. Jack Lee, The University of Texas M.D. Anderson Cancer Center

9:35 a.m. **Bayesian Inference for the Squared Multiple Correlation Coefficient—✱**Joseph F. Lucke, The University of Texas Health Science Center at Houston

9:50 a.m. **Unifying the Named Natural Exponential Families and Their Relatives—✱**Kari F. Lock, Harvard University; Carl Morris, Harvard University

10:05 a.m. **Floor Discussion**

483 CC-712
Topics in Statistical Estimation—Contributed

IMS

Chair(s): Xiaoyu Jiang, Boston University

8:35 a.m. **Admissibility of Generalized Bayes Estimators Through Markov Chain Arguments—✱**Brian Shea, The University of Minnesota

8:50 a.m. **Doubly Smoothed Maximum Likelihood Estimation—✱**Byungtae Seo, Texas Tech University; Bruce G. Lindsay, The Pennsylvania State University

9:05 a.m. **The Perfect Median Revisited—✱**Winston Richards, The Pennsylvania State University

9:20 a.m. **Folded Parametric Families—✱**Malwane Ananda, University of Nevada, Las Vegas; Kahadawala Cooray, University of Nevada, Las Vegas; Sumith Gunasekera, University of Nevada, Las Vegas

9:35 a.m. **Least Squares Estimation of Density of Very Large Prime Numbers—✱**Arthur Cohen, Nassau Community College

9:50 a.m. **Convergence Rates for Variable-at-a-Time Metropolis-Hastings Algorithms—✱**Ronald Neath, Baruch College, City University of New York; Galin Jones, The University of Minnesota

10:05 a.m. **Floor Discussion**

484 CC-107
Time Series Modeling—Contributed

Business and Economics Statistics Section

Chair(s): Clifford Hurvich, Stern School of Business/New York University

8:35 a.m. **Simple ARFIMA Approximation to the Limiting Aggregate Structure of Long Memory Process—✱**Kasing Man, Western Illinois University

8:50 a.m. **Computationally Efficient Gaussian Maximum Likelihood Methods for Vector ARFIMA Models—✱**Rebecca J. Sela, Stern School of Business/New York University; Clifford Hurvich, Stern School of Business/New York University

9:05 a.m. **Nonlinear Exponential Smoothing and Positive Data—✱**J. Keith Ord, Georgetown University; Muhammad Akram, Monash University; Rob J. Hyndman, Monash University

9:20 a.m. **Integer-Valued Time Series and Renewal Processes—✱**Yunwei Cui, Clemson University; Robert Lund, Clemson University

9:35 a.m. **A Modified Approach to Obtaining Sieve Bootstrap Prediction Intervals for Time Series—✱**Purna Mukhopadhyay, Missouri University of Science and Technology; V. A. Samaranayake, Missouri University of Science and Technology

9:50 a.m. **Forecasting in Linear Autoregressive Models with Heteroscedastic Measurement Error—✱**Yorghos Tripodis, University of Massachusetts Amherst

10:05 a.m. **A Reformulation of Generalized Least Squares Estimators in Autocorrelated Regression—✱**Jaechoul Lee, Boise State University

485 CC-113
Survival Analysis II: New Developments—Contributed

Biometrics Section, Section on Nonparametric Statistics, Biopharmaceutical Section, Section on Quality and Productivity

Chair(s): Maureen McClatchey, Qwest

8:35 a.m. **A Parametric Method for Testing Proportional Odds Assumption—✱**Qing Xu, U.S. Food and Drug Administration; Jong-Hyeon Jeong, University of Pittsburgh

8:50 a.m. **Semiparametric Cure Rate Models with Random Effects—✱**Guoqing Diao, George Mason University

9:05 a.m. **Estimating the Convolution of Distributions Under the Partial Koziol-Green Model of Random Censorship—✱**Ke Wu, California State University, Fresno

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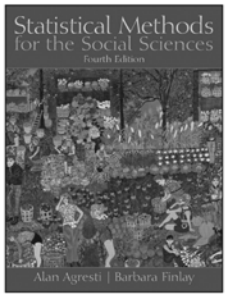

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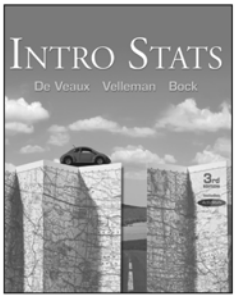

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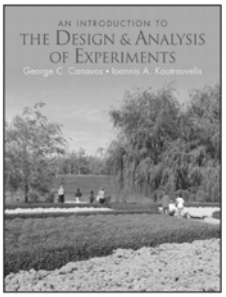

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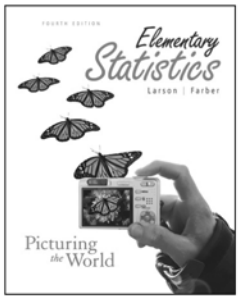

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9:20 a.m. **A Finite Mixture Survival Model To Characterize Risk Groups of Neuroblastoma—✱**Sally Hunsberger, National Institutes of Health; Paul S. Albert, National Institutes of Health; Wendy B. London, University of Florida

9:35 a.m. **Selecting Representative Trees in Random Forest for Survival Data—**Mousumi Banerjee, The University of Michigan; Ying Ding, The University of Michigan; ✱Anne-Michelle Noone, Georgetown University

9:50 a.m. **Partially Functional Quantile Regression Model for Survival Data—✱**Jing Qian, Emory University; Limin Peng, Emory University

10:05 a.m. **Floor Discussion**

486 CC-106

Statistical Methods for Genome-Wide Association Studies II—Contributed

Biometrics Section

Chair(s): Jeanette A. Mumford, University of California, Los Angeles

8:35 a.m. **Statistical Methods for Detecting Deletions Using SNP Genotypes in Case-Control Studies—✱**Chih-Chieh Wu, The University of Texas M.D. Anderson Cancer Center; Sanjay Shete, The University of Texas M.D. Anderson Cancer Center; Bo Peng, The University of Texas M.D. Anderson Cancer Center; Jianzhong Ma, The University of Texas M.D. Anderson Cancer Center; Christopher I. Amos, The University of Texas M.D. Anderson Cancer Center

8:50 a.m. **Family-Based Conditional Gene Test—✱**Thomas Hoffmann, Harvard School of Public Health; Nan Laird, Harvard School of Public Health

9:05 a.m. **A Bayesian Change-Point Algorithm for the Analysis of SNP Data—✱**Fridtjof Thomas, The University of Tennessee Health Science Center; Stanley B. Pounds, St. Jude Children's Research Hospital

9:20 a.m. **Imputing Missing Data in Case-Parent Triad Studies—✱**Tracy L. Bergemann, The University of Minnesota

9:35 a.m. **Statistical Methods for Inferring Duplicates Among Genotyped Samples—✱**Lei Shen, Eli Lilly and Company

9:50 a.m. **Rapid Genotype Imputation and Analysis of Resequencing Data Using Markov Models—✱**Yun Li, The University of Michigan; Cristen Willer, The University of Michigan; Jun Ding, The University of Michigan; Paul Scheet, The University of Michigan; Goncalo Abecasis, The University of Michigan

10:05 a.m. **An Empirical Bayesian Method To Correct for Winner's Curse in Genetic Association Studies—✱**Rui Xiao, The University of Michigan; Michael Boehnke, The University of Michigan

487 CC-103

● ▲ Statistical Issues with Genetic Data—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Paulette Ceesay, Merck & Co., Inc.

8:35 a.m. **Statistical Methods for the Analysis of RNAi Screens—✱**Imola K. Fodor, Genentech, Inc.; William F. Forrest, Genentech, Inc.

8:50 a.m. **Better Prognosis by Multiple-Gene Classifier with Pair Information—✱**Shuyan (Sabrina) Wan, Merck Research Laboratories; Xiang Yu, Merck Reserach Laboratories; Peggy Wong, Merck Research Laboratories

9:05 a.m. **Domain-Enhanced Analysis Using the Gene Ontology with Different Classification Response Variables—✱**Jiajun Liu, Merck Research Laboratories; Jacqueline Hughes-Oliver, North Carolina State University; Jason Osborne, North Carolina State University; Jack A. Menius, GlaxoSmithKline

9:20 a.m. **Gene-Class Testing for Multigroup Comparisons—✱**Ching-Wei Chang, National Center for Toxicological Research; James J. Chen, National Center for Toxicological Research

9:35 a.m. **Statistical Test on Nonrandom Clustering with Application to Genetic Somatic Mutation—✱**Jingjing Ye, Pfizer, Inc.; Elizabeth A. Lunney, Pfizer, Inc.; Paul A. Rejto, Pfizer, Inc.; Adam Pavlicek, Pfizer, Inc.; Chi-Hse Teng, Pfizer, Inc.

9:50 a.m. **Floor Discussion**

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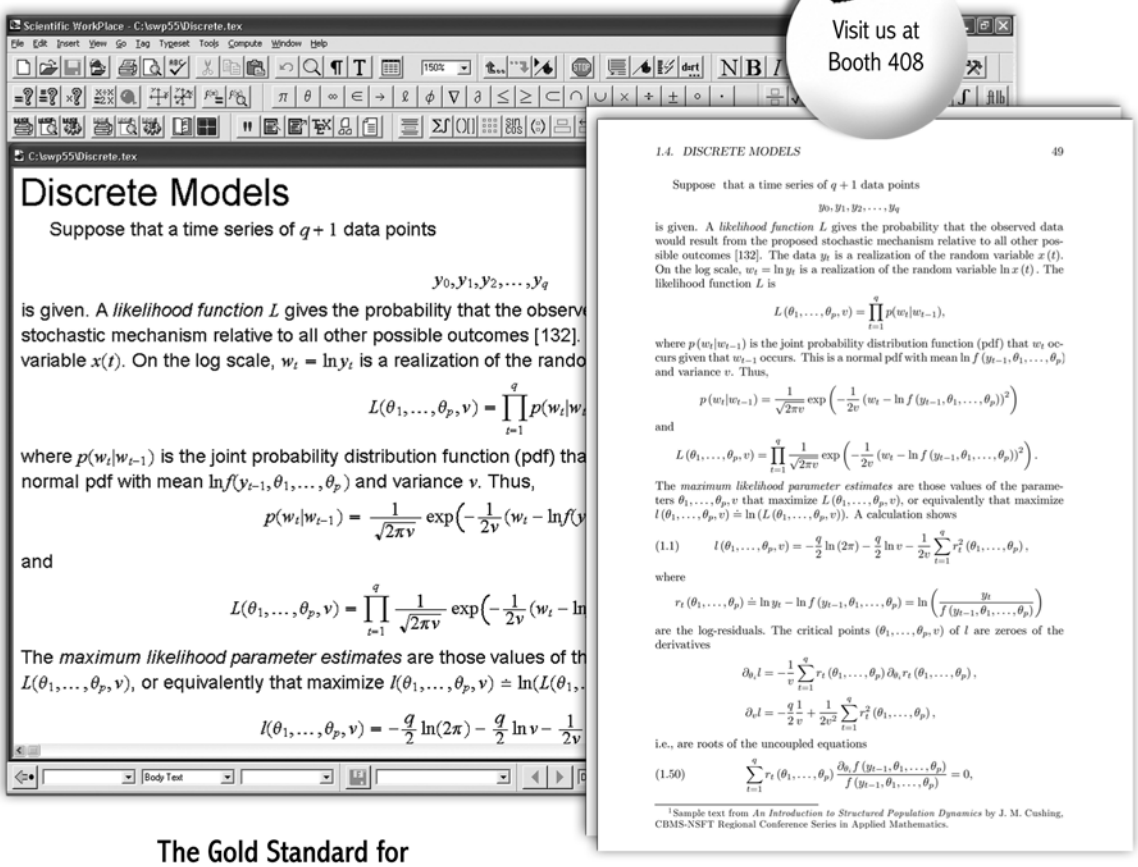

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488 CC-102

● ▲ Modeling Survival Data—Contributed

Biopharmaceutical Section, Section on Nonparametric Statistics, Section on Quality and Productivity, Biometrics Section

Chair(s): Michael Hesney, Merck & Co., Inc.

8:35 a.m. **Covariate-Adjusted Nonparametric Survival Curve Estimation—**✱Honghua Jiang, Eli Lilly and Company; Jame Symanowski, Nevada Cancer Institute; Yongming Qu, Eli Lilly and Company; Yanping Wang, Eli Lilly and Company

8:50 a.m. **Using Marginal Structural Model To Adjust for Post-Study Treatment—**✱Yanping Wang, Eli Lilly and Company; Shengyan Hong, Eli Lilly and Company; Min Zhang, North Carolina State University

9:05 a.m. **Estimating a Treatment Effect in Oncology Clinical Trials with Correcting for Crossover—**✱Qiang Xu, Columbia University; Xin Huang, Pfizer Global Research and Development; Vanessa Tassell, Pfizer Global Research and Development; Jim Li, Pfizer Global Research and Development; Randy Allred, Pfizer Global Research and Development

9:20 a.m. **Comparison of Cox Regression Model, Stratified Cox Model, and Logrank Test on Statistical Power in Clinical Trials with Prognostic Factors—**Jianliang Zhang, MedImmune, Inc.; ✱Iksung Cho, MedImmune, Inc.

9:35 a.m. **Time-to-Event Analysis Considerations in the Medical Device Industry—**✱Helen M. Chmiel, Zimmer Corporation

9:50 a.m. **Floor Discussion**

Invited Sessions 10:30 a.m.–12:20 p.m.

489 CC-111

▲ Stochastic Approximation Monte Carlo—Invited

Section on Bayesian Statistical Science, Section on Statistical Computing, IMS

Organizer(s): Faming Liang, Texas A&M University

Chair(s): Chuanhai Liu, Purdue University

10:35 a.m. **An Overview of Stochastic Approximation Monte Carlo Algorithms—**✱Faming Liang, Texas A&M University

11:00 a.m. **The Sample Metropolis-Hastings Algorithm—**Chuanhai Liu, Purdue University; ✱Andrew Lewandowski, Purdue University

11:25 a.m. **Asymptotics of the Wang-Landau Algorithm—**✱Yves F. Atchade, The University of Michigan

11:50 a.m. Disc: Samuel Kou, Harvard University

12:10 p.m. **Floor Discussion**

490 CC-710

● ▲ Advanced Modeling in Remote Sensing of the Inner Earth—Invited

American Geophysical Union, Section on Physical and Engineering Sciences

Organizer(s): Ping Ma, University of Illinois

Chair(s): Wenxuan Zhong, University of Illinois at Urbana-Champaign

10:35 a.m. **Statistical Issues in Imaging the Inner Earth—**✱Ping Ma, University of Illinois; Luis Tenorio, Colorado School of Mines; Maarten de Hoop, Purdue University; Ping Wang, Massachusetts Institute of Technology; Robert van der Hilst, Massachusetts Institute of Technology

11:05 a.m. **Comparing Layer Transitions via Regularity Estimates—**✱Luis Tenorio, Colorado School of Mines

11:35 a.m. **Sequential Estimation of High-Dimensional Space-Time Models—**✱Jonathan Stroud, University of Pennsylvania

12:05 p.m. **Floor Discussion**

491 CC-712

● Nutrition Surveys: Challenges in Design and Analysis—Invited

SSC, Section on Survey Research Methods, Social Statistics Section, Section on Statistics in Epidemiology

Organizer(s): Jack Gambino, Statistics Canada

Chair(s): Jack Gambino, Statistics Canada

10:35 a.m. **Under-Reporting of Energy Intake in the Canadian Community Health Survey—**✱Didier Garriguet, Statistics Canada

11:00 a.m. **Analysis of Survey-Based Usual Intake Nutrition Data: The Issue of Within-Person Variation—**✱Kevin Dodd, National Cancer Institute; Joseph Goldman, U.S. Department of Agriculture

11:25 a.m. **National Nutrition Data: Methodological and Analytic Experiences of NHANES—**✱Clifford L. Johnson, Centers for Disease Control and Prevention; Leyla Mohadjer, Westat, Inc.; Lester R. Curtin, Centers for Disease Control and Prevention

11:50 a.m. Disc: Valerie Tarasuk, University of Toronto

12:10 p.m. **Floor Discussion**

492 CC-702

● Radiation Exposure Effects Research: Moving Forward After 60 Years of Following A-Bomb Survivors—Invited

Section on Statistics in Epidemiology, Section on Statisticians in Defense and National Security, WNAR, Biometrics Section

Organizer(s): Norman P. Ross, Radiation Effects Research Foundation

Chair(s): Leonard Hearne, University of Missouri-Columbia

10:35 a.m. **Radiation-Related Cancer for Childhood Exposures—**✱Donald Pierce, Oregon Health & Science University

11:00 a.m. **Application of Causal Modeling on Radiation, Inflammation, and Selected Radiation/Inflammation-Induced Health Outcomes—**✱Tatsuyuki Kakuma, Kurume University; Yuko Araki, Kurume University; Wan-Ling Hsu, The Radiation Effects Research Foundation; Eiji Nakashima, The Radiation Effects Research Foundation; Kazuo Neriishi, Radiation Effects Research Foundation; Ritsu Sakata, The Radiation Effects Research Foundation; Norman P. Ross, Radiation Effects Research Foundation

11:25 a.m. **Bayesian Risk Projection for A-Bomb Survivor Cohort—**✱Kyoji Furukawa, Radiation Effects Research Foundation; John Cologne, Radiation Effects Research Foundation; Yukiko Shimizu, Radiation Effects Research Foundation

11:50 a.m. **Estimation of Radiation Dose from Biological Manifestations and Imperfect Measures of Physical Determinants—**✱Randolph L. Carter, University at Buffalo; Harry Cullings, Radiation Effects Research Foundation; John Cologne, Radiation Effects Research Foundation; Sachiyo Funamoto, Radiation Effects Research Foundation; Yoichiro Kusunoki, Radiation Effects Research Foundation; Kazuo Neriishi, Radiation Effects Research Foundation; Thomas Seed, Radiation Effects Research Foundation; Austin Miller, University at Buffalo; Carmen D. Tekwe, University at Buffalo; Nori Nakamura, Radiation Effects Research Foundation; Daniel Stram, University of Southern California; Norman P. Ross, Radiation Effects Research Foundation

12:15 p.m. **Floor Discussion**

493 CC-204

Global Maximization in EM-Type Algorithms—Invited

Section on Statistical Computing, Section on Bayesian Statistical Science

Organizer(s): Ravi Varadhan, Johns Hopkins University

Chair(s): Sonja Greven, Johns Hopkins University

10:35 a.m. **Adaptive Data Weighting Strategies for Locating the Global Maximum in EM-Type Algorithms—**✱Ravi Varadhan, Johns Hopkins University

11:00 a.m. **Global Optimization with Model Reference Adaptive Search and Expectation-Maximization—**✱Jeffrey Heath, Centre College; Michael Fu, University of Maryland, College Park; Wolfgang Jank, University of Maryland, College Park

11:25 a.m. **A Probabilistic Analysis of EM for Mixtures of Spherical Gaussians—**✱Sanjoy Dasgupta, University of California, San Diego

11:50 a.m. Disc: Kenneth Lange, University of California, Los Angeles

12:10 p.m. **Floor Discussion**

494 CC-207

● ▲ Imaging Biomarkers in Oncology—Invited

Biopharmaceutical Section, WNAR, Biometrics Section

Organizer(s): William L. Mietlowski, Novartis Pharmaceuticals
Chair(s): William L. Mietlowski, Novartis Pharmaceuticals

10:35 a.m. **Practical Considerations in Exploratory Imaging—✱**Haren Rupani, Novartis Pharmaceuticals

11:00 a.m. **Imaging Modalities Can Predict Therapy Outcomes: Can They Be Used To Define Endpoints in Clinical Trials?—✱**Constantine Gatsonis, Brown University

11:25 a.m. **Evaluation of Novel Imaging Agents in the Context of Treatment Effects—✱**Lori E. Dodd, National Cancer Institute

11:50 a.m. Disc: Sue-Jane Wang, U.S. Food and Drug Administration

12:10 p.m. **Floor Discussion**

495 CC-708

Statistical Analysis of Childhood Precursors of Adult Disease—Invited

ENAR, Section on Statistics in Epidemiology, WNAR, Biometrics Section

Organizer(s): Shumei S. Sun, Virginia Commonwealth University
Chair(s): Shumei S. Sun, Virginia Commonwealth University

10:35 a.m. **An Overview of Longitudinal Studies Useful to Investigators Studying Childhood Determinants of Adult Disease—**Elizabeth Goodman, Tufts-New England Medical Center/The Floating Hospital for Children; ✱Terry T.K. Huang, National Institutes of Health

11:00 a.m. **Analytic Approaches: Epidemiological, Statistical, and Genetic—✱**Christine M. Schubert, Virginia Commonwealth University

11:25 a.m. **The Fels Longitudinal Study of Growth and Human Development—✱**William C. Chumlea, Wright State University; Audrey Choh, Wright State University; Miryoung Lee, Wright State University; Bradford Towne, Wright State University; Dana Duren, Wright State University; Stefan Czerwinski, Wright State University

11:50 a.m. Disc: Laurel A. Beckett, University of California, Davis

12:10 p.m. **Floor Discussion**

496 CC-106

● Statistical Methods and Applications of Social Network Analysis—Invited

Section on Health Policy Statistics, Section on Statisticians in Defense and National Security, Social Statistics Section

Organizer(s): A. James O'Malley, Harvard Medical School
Chair(s): A. James O'Malley, Harvard Medical School

10:35 a.m. **Spatial Process Model for Social Network Analysis—✱**Crystal Linkletter, Brown University

11:00 a.m. **Recent Statistical Models for Network Science—✱**Stanley Wasserman, Indiana University

11:25 a.m. **Factor Models for Multivariate Relational Data—✱**Peter Hoff, University of Washington

11:50 a.m. Disc: Joseph Blitzstein, Harvard University

12:10 p.m. **Floor Discussion**

497 CC-203

● Advances in Variable Selection—Invited

IMS, SSC

Organizer(s): Edward George, The Wharton School, University of Pennsylvania
Chair(s): Robert McCulloch, The University of Chicago

10:35 a.m. **Variable Selection via a Bayesian Ensemble—✱**Hugh Chipman, Acadia University; Edward George, The Wharton School, University of Pennsylvania; Robert McCulloch, The University of Chicago

11:05 a.m. **Alpha Investing: A New Multiple Hypothesis Testing Procedure That Controls mFDR—✱**Dean Foster, University of Pennsylvania; Robert A. Stine, University of Pennsylvania

11:35 a.m. **Real-Time Prediction Under Model Uncertainty via Dynamic Model Averaging—✱**Adrian E. Raftery, University of Washington; Miroslav Karny, Institute of Information Theory and Automation; Josef Andrysek, Institute of Information Theory and Automation; Pavel Ettler, Compureg

12:05 p.m. **Floor Discussion**

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498 **CC-704**

● New Developments on Analysis of Correlated Data—Invited

WNAR, Biopharmaceutical Section, Biometrics Section

Organizer(s): Tao Huang, University of Virginia

Chair(s): Jinchi Lv, University of Southern California

10:35 a.m. **Variable Selection for High-Dimensional Correlated Data—✱**Xihong Lin, Harvard University

11:00 a.m. **Forecasting Time Series of Inhomogeneous Poisson Processes—✱**Jianhua Huang, Texas A&M University; Haipeng Shen, The University of North Carolina at Chapel Hill

11:25 a.m. **Generalized Varying Coefficient Models for Longitudinal Data—✱**Damla Senturk, The Pennsylvania State University; Hans G. Müller, University of California, Davis

11:50 a.m. **Partial Consistency in Mixed Models—✱**Tao Huang, University of Virginia; Heng Peng, Hong Kong Baptist University

12:15 p.m. **Floor Discussion**

Invited Panel 10:30 a.m.–12:20 p.m.

499 **CC-108**

▲ Teaching Introductory Statistics Online—Invited

Section on Statistical Education, Section on Teaching Statistics in the Health Sciences

Organizer(s): Felicity B. Enders, Mayo Clinic

Chair(s): Sue Schou, Idaho State University

Panelists: ✱Felicity B. Enders, Mayo Clinic

✱Engin Sungur, The University of Minnesota, Morris

✱John McGready, Johns Hopkins Bloomberg School of Public Health

✱Gail Tudor, Husson College

12:15 p.m. **Floor Discussion**

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

500 CC-707

● Hypothesis Testing in Neuroimaging—Topic-Contributed

Biometrics Section, Biopharmaceutical Section, WNAR

Organizer(s): Philip Reiss, New York University

Chair(s): Akim M. Adekpedjou, University of Missouri-Rolla

10:35 a.m. **Type I Error Rate with Simple Group fMRI Models—✱**Jeanette A. Mumford, University of California, Los Angeles; Thomas E. Nichols, GlaxoSmithKline Clinical Imaging Centre

10:55 a.m. **Bootstrap Procedures for Testing in Neuroimaging Settings—✱**Todd Ogden, Columbia University; Chung Chang, Columbia University

11:15 a.m. **Inference for Eigenvalues and Eigenvectors of Diffusion Tensors in Multisubject Diffusion Tensor Imaging Studies—✱**Armin Schwartzman, Harvard School of Public Health; Robert F. Dougherty, Stanford University; Jonathan E. Taylor, Stanford University

11:35 a.m. **Simultaneous Confidence Bands for the Coefficient Function in Functional Regression—✱**Philip Reiss, New York University; Todd Ogden, Columbia University

11:55 a.m. **Intrinsic Regression Model for Positive-Definite Matrices with Applications to Diffusion Tensor Imaging—✱**Yimei Li, The University of North Carolina at Chapel Hill; Hongtu Zhu, The University of North Carolina at Chapel Hill; Yasheng Chen, The University of North Carolina at Chapel Hill; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Weili Lin, The University of North Carolina at Chapel Hill

12:15 p.m. **Floor Discussion**

501 CC-706

● Design and Inferences in Multiregional Clinical Trials—Topic-Contributed

Biopharmaceutical Section, Biometrics Section

Organizer(s): Yoko Tanaka, Eli Lilly and Company

Chair(s): Linda J. Young, University of Florida

10:35 a.m. **Bridging Estimate of Treatment-by-Race Effect Using Balancing Scores—✱**Kyoungah See, Eli Lilly and Company; Ilya Lipkovich, Eli Lilly and Company

10:55 a.m. **Harmonization of Statistical Analyses and Reporting in a Global Environment: Some Experiences, Challenges, and Solutions—✱**Melvin S. Munsaka, Takeda Global Research & Development

11:15 a.m. **Issues of Analysis and Interpretation Relating to Regions in Multiregional Clinical Trials—✱**Paul Gallo, Novartis Pharmaceuticals

11:35 a.m. **Issues in Conducting and Evaluating Multiregional Clinical Trials—✱**Yuki Ando, Pharmaceuticals and Medical Devices Agency

11:55 a.m. Disc: Henry S.H. Hsu, U.S. Food and Drug Administration

12:15 p.m. **Floor Discussion**

502 CC-107

Statistical Applications in Business—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Glenn White, Ernst & Young LLP

Chair(s): Glenn White, Ernst & Young LLP

10:35 a.m. **How To Help Businesses Make Sampling Decisions—✱**Eric T. Falk, Ernst & Young LLP

10:55 a.m. **Statistical Documentation Practices for Business Consulting—✱**Susan Hinkins, National Opinion Research Center; Edward Mulrow, National Opinion Research Center

11:15 a.m. **Pitfalls in the Application of Statistical Tools in Business Settings—✱**Wendy Rotz, Ernst & Young LLP

11:35 a.m. **Business Survey Challenges—✱**Joe Callender, Ernst & Young LLP; Amy Luo, Ernst & Young LLP

11:55 a.m. **Data Visualization and Analysis: Business Consulting Applications—✱**Ru Sun, Ernst & Young LLP

12:15 p.m. **Floor Discussion**

503 CC-109

● Bayesian Applications—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Dongchu Sun, University of Missouri-Columbia

Chair(s): Steve Sheriff, Missouri Department of Conservation

10:35 a.m. **Additive Models with Interval-Censored Data—✱**Chin-I Cheng, University of Missouri-Columbia; Paul Speckman, University of Missouri-Columbia

10:55 a.m. **Bayesian Semiparametric Modeling of Spatially Correlated Breast Cancer Survival Incidence with Cure Fractions—✱**Luyan Dai, University of Missouri-Columbia; Dongchu Sun, University of Missouri-Columbia; Zhuoqiong He, University of Missouri-Columbia; Mario Schootman, Washington University

11:15 a.m. **Bayes Factor Consistency for Large Model Dimensions—✱**Ruixin Guo, University of Missouri-Columbia; Paul Speckman, University of Missouri-Columbia

11:35 a.m. **One-Way ANOVA: Fixed Effects, or Random?—✱**Fei Liu, University of Missouri-Columbia; Dongchu Sun, University of Missouri-Columbia; Paul Speckman, University of Missouri-Columbia; Jeffrey Rouder, University of Missouri

11:55 a.m. **Posterior Simulation in the Generalized Linear Mixed Model with Semiparametric Random Effects—✱**Subharup Guha, University of Missouri-Columbia

12:15 p.m. **Floor Discussion**

504 CC-202

● ▲ Applications of Nonparametric Statistics on Manifolds—Topic-Contributed

Section on Nonparametric Statistics, IMS

Organizer(s): Victor Patrangenaru, Florida State University

Chair(s): Michael Crane, Florida State University

10:35 a.m. **Nonparametric Inference on Shape Spaces—✱**Abhishek Bhattacharya, The University of Arizona

10:55 a.m. **Regularized Deconvolution on the Euclidean Motion Group—✱**Maia Lesosky, University of Guelph

11:15 a.m. **Comparing Random Variables on Manifolds—✱**Nikolay H. Balov, Florida State University

11:35 a.m. **Applications of Nonparametric Statistics on Shape Manifolds and on Shape-and-Size Shape Manifolds—✱**Ananda Bandulasiri, Sam Houston State University

11:55 a.m. **Floor Discussion**

505 CC-113

Modeling Environmental Pollutants—Topic-Contributed

Section on Statistics and the Environment, WNAR

Organizer(s): William Hunt, Jr., North Carolina State University

Chair(s): Barry D. Nussbaum, U.S. Environmental Protection Agency

10:35 a.m. **Can Blood Lead Levels in Children Be Reduced?—✱**Steven G. Somers, North Carolina State University; Jessica P. Williams, North Carolina State University; Amanda Campbell, North Carolina State University

10:55 a.m. **Can Meteorologically Adjusted Ozone Air Quality Trends Identify the Impact of the Nitrogen Oxides Utility Reductions?—✱**Kristen L. Gore, North Carolina State University; Adrienne Wootten, North Carolina State University; Timothy Brown, North Carolina State University; Jie Zheng, North Carolina State University

11:15 a.m. **Examining Crustal Matter: Resolving the Particulate Matter Emission Inventory/Air Quality Discrepancy—**William J. Rice, North Carolina State University; ✱Stacy A. Jones, North Carolina State University; Lauren A. Klein, North Carolina State University

11:35 a.m. **Did the Addition of Supplementary Control Systems at Utilities Result in Lower Nitrogen Oxides Emissions and Reductions in Ground-Level Ozone in North Carolina?—✱**Timothy Brown, North Carolina State University; Jie Zheng, North Carolina State University

11:55 a.m. Disc: John Warren, U.S. Environmental Protection Agency

12:15 p.m. **Floor Discussion**

506 CC-102

● ▲ Surveys and Administrative Records: Data Comparison and Quality—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics

Organizer(s): Polly Phipps, Bureau of Labor Statistics

Chair(s): Shelly Martinez, Office of Management and Budget

10:35 a.m. **Evaluating the Relationship Between Survey Design and False-Negative Reporting About Medicaid Enrollment—✱**Victoria Lynch, U.S. Census Bureau

10:55 a.m. **Reconciling Employment Differences Between Administrative and Survey Data—** Applebaum Margaret, Bureau of Labor Statistics; Kristin Fairman, Bureau of Labor Statistics; Jeffrey Groen, Bureau of Labor Statistics; ✱Polly Phipps, Bureau of Labor Statistics

11:15 a.m. **Comparison of Business Revenues from Two Administrative Files—**✱Guylaine Dubreuil, Statistics Canada; François Brisebois, Statistics Canada; Patrice Martineau, Statistics Canada; Julie Girard, Statistics Canada; Caroline Rondeau, Statistics Canada

11:35 a.m. **Reconciling Differences in Income Estimates Derived from Survey and Tax Return Data—**Kevin Moore, Federal Reserve Board of Governors; ✱Barry Johnson, Statistics of Income, IRS

11:55 a.m. Disc: Dean Resnick, U.S. Census Bureau

12:15 p.m. **Floor Discussion**

Topic-Contributed Panel 10:30 a.m.–12:20 p.m.

507 **CC-110**

How To Publish Your Book with the ASA-SIAM Series on Statistics and Applied Probability—Topic-Contributed

Section on Statistical Education

Organizer(s): Martha Aliaga, The American Statistical Association

Chair(s): Terry King, Northwest Missouri State University

Panelists: ✱Lisa M. LaVange, The University of North Carolina at Chapel Hill

✱Keith Crank, The American Statistical Association

✱Sara J. Murphy, Society for Industrial and Applied Mathematics

✱Karen A.F. Copeland, Boulder Statistics

12:15 p.m. **Floor Discussion**

Contributed Sessions 10:30 a.m.–12:20 p.m.

508 **CC-104**

● Causal Inference and Factor Analysis in the Social Sciences—Contributed

Social Statistics Section, Section on Government Statistics

Chair(s): Guangyu Zhang, University of Maryland, College Park

10:35 a.m. **Estimating Non-Numeric Outcomes with Structural Equation Modeling: Application to Colorectal Cancer—**✱Ralph M. Turner, University of the Sciences

10:50 a.m. **A Parametric Mixture Model Method for Clustering Multivariate Correlated Binary Data—**✱Ajit C. Tamhane, Northwestern University; Dingxi Qiu, University of Miami

11:05 a.m. **Recommended Sample Size for Conducting Exploratory Factor Analysis on Dichotomous Data—**✱Robert Pearson, University of Northern Colorado; Daniel Mundfrom, University of Northern Colorado

11:20 a.m. **The Causal Effect of Class Size on Academic Performance: Multivariate Instrumental Variable Estimators with Tennessee Class Size Data Missing at Random—**✱Yongyun Shin, The University of Chicago; Stephen W. Raudenbush, The University of Chicago

11:35 a.m. **Three-Mode Models for Multitrait-Multimethod Data—**✱Frans J. Oort, University of Amsterdam

11:50 a.m. **Floor Discussion**

509 **CC-709**

Clinical Trials Methodology—Contributed

Biometrics Section, Section on Nonparametric Statistics, Biopharmaceutical Section

Chair(s): Novie O.M. Younger, The University of the West Indies, Jamaica

10:35 a.m. **Estimation Method of the Semiparametric Mixture Cure Gamma Frailty Model—**✱Jiajia Zhang, University of South Carolina; Yingwei Peng, Queen's University

10:50 a.m. **Adaptive Clinical Trial Designs To Meet the Criteria—**✱Yi Cheng, Indiana University South Bend

11:05 a.m. **Using Short-Term Response To Facilitate Adaptive Randomization for Survival Clinical Trials—✱**Xuelin Huang, The University of Texas M.D. Anderson Cancer Center; Jing Ning, The University of Texas M.D. Anderson Cancer Center; Yisheng Li, The University of Texas M.D. Anderson Cancer Center; Donald A. Berry, The University of Texas M.D. Anderson Cancer Center

11:20 a.m. **Nonparametric Adaptive Sample Size Calculation in Diagnostic Trials—✱**Liansheng Tang, George Mason University

11:35 a.m. **Sample Size Re-Estimation in an Adjuvant Cancer Trial—✱**Erinn M. Hade, The Ohio State Univeristy; David Jarjoura, The Ohio State Univeristy

11:50 a.m. **Floor Discussion**

510 CC-103

Model-Based Estimation—Contributed

Section on Survey Research Methods, Section on Nonparametric Statistics, Section on Government Statistics, Social Statistics Section

Chair(s): Ying Yuan, The University of Texas M.D. Anderson Cancer Center

10:35 a.m. **Inference in Finite Population Sampling Using Regression Models Imposed by Randomization in the Sample Design—✱**Steve Woodruff, Specified Designs

10:50 a.m. **Robust Predictions Based on Model-Based Approaches—✱**Bing Han, RAND Corporation

11:05 a.m. **A Snowball's Chance in Nigeria—✱**Rachel Schutt, Columbia University; Alexandra Scacco, Columbia University

11:20 a.m. **The Two-Sample Problem—✱**Alan H. Dorfman, Bureau of Labor Statistics

11:35 a.m. **Robust Improvements in Ratio-Type Estimators—✱**Evrim Oral, Middle East Technical University; Cem Kadilar, Hacettepe University

11:50 a.m. **Improved Ratio Estimators in Adaptive Cluster Sampling—✱**Feng Min Lin, National Cheng Kung University; Tzu Ching Chiang, National Cheng Kung University

12:05 p.m. **Floor Discussion**

511 CC-101

Analytic Methods with Noncontinuous Outcomes—Contributed

Section on Survey Research Methods, Section on Nonparametric Statistics, Section on Government Statistics

Chair(s): Donsig Jang, Mathematica Policy Research, Inc.

10:35 a.m. **Estimating the Distribution Function Using Ranked Set Samples with Imperfect Ranking—✱**Satrajit Roychoudhury, Schering-Plough Research Institute; Kaushik Ghosh, University of Nevada, Las Vegas

10:50 a.m. **Power Analysis for the Regression Discontinuity Design—✱**Hyunshik Lee, Westat, Inc.; Tom Munk, Westat, Inc.

11:05 a.m. **Charactering the Propensity To Volunteer in America—✱**Shelton Jones, RTI International; David Weitzenkamp, RTI International; Kathleen Jordan, RTI International; Jeniffer Iriondo-Perez, RTI International; John Foster-Bey, Corporation for National and Community Service; Annette Green, RTI International

11:20 a.m. **B-Splines and Bootstrapping for Piecewise Logistic Regression in Complex Samples—✱**Scott W. Keith, The University of Alabama at Birmingham; David B. Allison, The University of Alabama at Birmingham

11:35 a.m. **Inference on Polychotomous Responses in Finite Population: A Predictive Approach—✱**Tathagata Bandyopadhyay, Indian Institute of Management Ahmedabad; Sumanta Adhyay, University of Calcutta

11:50 a.m. **Floor Discussion**

512 CC-711

Linear Model Extensions and Related Multivariate Problems—Contributed

Biometrics Section

Chair(s): Shu-Min Liao, The Pennsylvania State University

10:35 a.m. **Multilevel Overdispersion in Hierarchical Generalized Linear Models—✱**Trent L. Lalonde, Arizona State University; Jeffrey R. Wilson, Arizona State University

10:50 a.m. **Stability Measures of Samples in Clustering Analysis Highly Correlates with Quality Assessment Metrics for Affymetrix GeneChip Data—✱**Fenghai Duan, University of Nebraska Medical Center

11:05 a.m. **Repeated Measurements on Distinct Scales with Censoring—✱**Tanzy Love, Carnegie Mellon University; Alicia Carriquiry, Iowa State University

11:20 a.m. **Bootstrapping Methods for Data with Multiple Levels of Variation—✱**Zhen Pang, Nanyang Technological University; Christopher Field, Dalhousie University; Alan Welsh, The Australian National University

11:35 a.m. **P-Value Distribution for Linear Models in Microarray Analysis and Related Problems—✱**Natalia F. Tchetcherina, The Pennsylvania State University

11:50 a.m. **Differential Gene Expression Analysis: Principal Component Analysis and Biplot—✱**Nusrat Jahan, James Madison University; Louise Temple-Roserbrook, James Madison University

12:05 p.m. **Floor Discussion**

513 CC-701

● Linkage Analysis—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Sanjay Shete, The University of Texas M.D. Anderson Cancer Center

10:35 a.m. **A Note on the Asymptotic Null Distribution of Likelihood-Ratio Tests for Multivariate Genetic Linkage in Variance Components Models—✱**Summer S. Han, Yale University; Joseph T. Chang, Yale University

10:50 a.m. **Identification of Disease Loci for Schizophrenia by a Family-Based Dynamic Association Approach—✱**Tun-Hsiang Yang, University of California, Los Angeles; Kerchau Li, University of California, Los Angeles; Chih-Min Liu, National Taiwan University Hospital; Hai-Gwo Hwu, National Taiwan University Hospital

11:05 a.m. **Genetic Linkage Analysis Accounting for Missing Phenotypes in Males—✱**Rosa C. Banuelos, Rice University

11:20 a.m. **A Variance Components Method To Test for QTL Heterogeneity Among Multiple Ethnic Groups—✱**Trecia A. Kippola, Oklahoma State University; Karen L. Edwards, University of Washington; Stephanie A. Monks, Oklahoma State University

11:35 a.m. **Detecting and Controlling for Population Stratification in Linkage Analysis—✱**Guan Xing, Bristol-Myers Squibb Company; Chao Xing, The University of Texas Southwestern Medical Center

11:50 a.m. **Floor Discussion**

514 CC-206

Inference—Contributed

Section on Statistical Computing

Chair(s): Bettina Grün, Wirtschaftsuniversität Wien

10:35 a.m. **On Sampling and Spurious Granger Causality—✱**Victor Solo, University of New South Wales

10:50 a.m. **On Robust Estimation of the Heteroscedasticity Covariance Matrix—✱**Tsung-Chi Cheng, National Cheng-Chi University

11:05 a.m. **Multisample Tests of Equality for Multidimensional Data with Applications to Detecting Changes in Data Streams—✱**Adam Petrie, The University of Tennessee, Knoxville

11:20 a.m. **A Fast Algorithm for the Nonparametric MLE of the Distribution Function with Censored Data—✱**Yaming Yu, University of California, Irvine

11:35 a.m. **On Model-Based Approaches for Detecting Differentially Expressed Genes and Estimating the FDR in Replicated Microarray Data—✱**Shunpu Zhang, University of Nebraska-Lincoln

11:50 a.m. **Improved Confidence Regions for Seemingly Unrelated Regression Models—✱**Kent Riggs, Stephen F. Austin State University

12:05 p.m. **Sample Size Estimation Tables for Effect Size Values for the Significant Interaction Effect of a Completely Randomized Factorial Design (CRF-pq): Fixed Effects and Random Effects—✱**Larry W. Featherston, University of Arkansas; Calli Johnson, University of Arkansas; Charles Stegman, University of Arkansas; Denise T. Airola, University of Arkansas

515 CC-212

Inspection, Capability, and Classification Analysis—Contributed

Section on Quality and Productivity, Section on Physical and Engineering Sciences

Chair(s): Michael Joner, The Procter & Gamble Company

10:35 a.m. **Assessing a Manufacturing Customer's Complaint Using Supplier Process Data—**✱Jon M. Lindenauer, Weyerhaeuser

10:50 a.m. **Identification and Classification of Intermittent Demand Patterns—**✱Jing Chen, Temple University; Pallavi Chitturi, Temple University; Mark Gershon, Temple University

11:05 a.m. **Sequential Analysis for a Binomial Proportion Using an Imprecise Prior Distribution—**✱Dennis Oberhelman, University of South Carolina; Kathleen Whitcomb, University of South Carolina

11:20 a.m. **An Alternative Tolerance Limit for the One-Way Normal Random Effects Model—**✱Shun-Yi Chen, Tamkang University

11:35 a.m. **Deploying Statistical Process Capability Approaches for Assessing Health Care Revenue-Cycle Management—**✱Jason Gillikin, Spectrum Health Hosptials

11:50 a.m. **Supervised Texture Classification Using Vector Autoregressive Models—**✱Martin Heller, North Carolina State University

12:05 p.m. **Effective Choice of Test Boundaries for Sequential Testing Based on Theory of Continued Fractions—**✱Yefim H. Michlin, Technion - Israel Institute of Technology; Genady Y. Grabarnik, IBM T. J. Watson Research Center

516 CC-210

Analysis of Designed Experiments—Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity

Chair(s): Peter Goos, Universiteit Antwerpen

10:35 a.m. **Product and Process Improvement Using Mixture-Process Variable and Robust Optimization Methods—**Narinder S. Sahni, Jawaharlal Nehru University; ✱Greg F. Piepel, Pacific Northwest National Laboratory; Tormod Naes, MATFORSK

10:50 a.m. **Relative Effects in Two-Level Experiment Supersaturated or Incomplete Data Sets—**✱Linda Trocine, University of Central Florida; Linda C. Malone, University of Central Florida

11:05 a.m. **Discrimination Between Two Linear Regression Models: Design and Inference—**✱Rupam R. Pal, University of California, Riverside; Subir Ghosh, University of California, Riverside

11:20 a.m. **Determining Interacting Variables in Random Forest Models Using Fractional Factorial Designs—**✱Ewa M. Sztendur, Monash University; Neil T. Diamond, Monash University

11:35 a.m. **Industrial Split-Plot Experiments with Non-Normal Data: Go Bayesian—**✱Timothy J. Robinson, University of Wyoming; Christine Anderson-Cook, Los Alamos National Laboratory; Michael Hamada, Los Alamos National Laboratory

11:50 a.m. **Object-Oriented Control of Experiments and Information Capacity of Experimental Data—**✱Anatoly A. Naumov, Novosibirsk State Technical University

12:05 p.m. **Bootstrap Inference on the Characterization of a Response Surface—**✱Robert Parody, Rochester Institute of Technology

517 CC-201

● ▲ Nonparametric and Semiparametric Inference for Lifetime and Survival Data—Contributed

Section on Nonparametric Statistics, Section on Quality and Productivity

Chair(s): Ke Wu, California State University, Fresno

10:35 a.m. **A Nonparametric Model of Quality Adjusted Lifetime Data Analysis with Zero Duration Health States—**✱Kaushal K. Mishra, North Carolina State University; Sujit Ghosh, North Carolina State University

10:50 a.m. **Semiparametric Efficient Estimation in the Proportional Odds Cure Model—**✱Meng Mao, University of California, Davis

11:05 a.m. **New Approaches to Life Testing with a Guaranteed Survival Time—**✱Mohammad B. Sepehrifar, The University of Mississippi

11:20 a.m. **A Nonparametric Method for Assessment of Interactions in a Multifactor Design with Censored Data—✱**M. Hossein Rahbar, The University of Texas Health Science Center at Houston; Hooshang Talebi, University of Isfahan; Sangchoon Jeon, Michigan State University

11:35 a.m. **Another Look at the Mean Lifetime Based on Censored and/or Truncated Data—✱**Jong S. Kim, Portland State University

11:50 a.m. **Isotonic Estimation of Monotone Hazard Ratios for a Proportional Hazards Model—✱**Marek Ancukiewicz, Massachusetts General Hospital/Harvard Medical School

12:05 p.m. **A Mass Redistribution Algorithm for Right-Censored and Left-Truncated Time-to-Event Data—✱**Xu Zhang, Georgia State University; Mei-Jie Zhang, Medical College of Wisconsin; Jason P. Fine, University of Wisconsin-Madison

518 CC-112

Improving the Quality of Survey Data—Contributed

Section on Government Statistics, Section on Survey Research Methods

Chair(s): David Chapman, FDIC

10:35 a.m. **Assessing the Effect of Calibration on Nonresponse Bias in the 2005 Agricultural Resource Management Survey Phase III Sample Using Census 2002 Data—✱**Morgan S. Earp, National Agricultural Statistics Service

10:50 a.m. **Adjustments for Mode Effect Bias for the Canadian Community Health Survey—✱**Andrew Quigley, Statistics Canada

11:05 a.m. **Methods To Promote Deeper Processing on Survey Questions—✱**Emily McFarlane, RTI International; Robert Steele, RTI International; Laura Burns, RTI International; Daniel Pratt, RTI International

11:20 a.m. **Improving Educational Data Quality for Growth Model Analysis—✱**Kening Wang, University of Arkansas; Sean Mulvenon, University of Arkansas; Charles Stegman, University of Arkansas; Yanling Xia, University of Arkansas

11:35 a.m. **Use of a Listed Sample To Supplement and Improve the Accuracy of a Probability Sample—✱**Madhumita (Bonnie) Ghosh-Dastidar, RAND Corporation; Marc N. Elliott, RAND Corporation; Amelia Haviland, RAND Corporation; Lynn Karoly, RAND Corporation

11:50 a.m. **Fuzzy Matching of Federal Science and Technology Program Data—✱**Gary W. Anderson, National Institute of Standards and Technology

12:05 p.m. **Maximum Likelihood Estimation for Categorical Data with an Almost-Missing-at-Random Mechanism—✱**Yan Zhou, The University of Michigan; Roderick J. Little, The University of Michigan; John Kalbfleisch, The University of Michigan

519 CC-105

The Internet, Telecommunications, and Migration—Contributed

Business and Economics Statistics Section

Chair(s): Nicolas Christou, University of California, Los Angeles

10:35 a.m. **E-Commerce Online Experiments: Design and Analysis Challenges—✱**Victor N. Morin, Ecolab Research Center; Jonathan Francis, Microsoft

10:50 a.m. **Functional Data Analysis for Bid Arrival Times in eBay Auctions—✱**Shuang Wu, University of California, Davis; Hans G. Müller, University of California, Davis

11:05 a.m. **An Investigation of Virtual Worlds Adoption: A Research Framework and Empirical Study—✱**Guangying Hua, Bentley College; Dominique Haughton, Bentley College

11:20 a.m. **Tracking Changes in Rates of Return to Revenues and Expenses with Prices Set According to Target Rates in Regulated Telecommunications Companies—✱**Martin B. Selzer, Chatham Decision Sciences

11:35 a.m. **Tolls, Exchange Rates, and Northbound International Bridge Traffic from Ciudad Juarez to El Paso—✱**Angel L. Molina, Jr., The University of Texas at El Paso

11:50 a.m. **The 'Melting Pot': A Success Story?—✱**Edna Schechtman, Ben-Gurion University of the Negev; Shlomo Yitzhaki, Central Bureau of Statistics/Hebrew University

12:05 p.m. **Traditional Teaching Giving Way to New Techniques—✱**Mammo Woldie, Texas Southern University

520 CC-703
Statistical Methods for QTL Mapping and Tiling Arrays—Contributed

Biometrics Section

Chair(s): Deborah Glueck, University of Colorado Denver

10:35 a.m. **Bayesian Mixture Structural Equation Modeling in Multiple-Trait QTL Mapping—**✱Xiaojuan Mi, University of Nebraska; Kent M. Eskridge, University of Nebraska; Dong Wang, University of Nebraska-Lincoln

10:50 a.m. **Computationally Efficient Estimation of False Discovery Rate in eQTL Studies Using Sequential Permutation P-Values—**✱Timothy Bancroft, Iowa State University; Dan Nettleton, Iowa State University

11:05 a.m. **Normalizing and Peak Finding for Tiling Microarrays with Application in Epigenomics—**✱W. Evan Johnson, Brigham Young University

11:20 a.m. **Analysis of Arabidopsis Genome Tiling Arrays To Detect Nuclear Pre-mRNA Processing Events and Differential Gene Expression—**✱Ann Hess, Colorado State University; Amber Hackstadt, Colorado State University; A.S.N. Reddy, Colorado State University; Arthur Hunt, University of Kentucky

11:35 a.m. **Floor Discussion**

521 CC-705
Methods for Integration of Genomic Data—Contributed

Biometrics Section

Chair(s): Tracy L. Bergemann, The University of Minnesota

10:35 a.m. **A Meta-Analysis Approach for Gene Association Network Reconstruction—**✱YounJeong Choi, University of Wisconsin-Madison; Christina M. Kendziorski, University of Wisconsin-Madison; Alan D. Attie, University of Wisconsin-Madison; Mark P. Keller, University of Wisconsin-Madison

10:50 a.m. **Accuracy of 'Network Filtering' for Detecting Perturbations in Large, Sparse Networks—**✱Shu Yang, Boston University; Eric Kolaczyk, Boston University

11:05 a.m. **A Statistical Framework for Integrating Different Microarray Data Sets in Differential Expression Analysis—**✱Yinglei Lai, The George Washington University

11:20 a.m. **Genome-Wide Associations Between SNP Genotypes and Gene Expression, Detected by Both Frequentist and Bayesian Approaches—**✱Amrita Ray, Lawrence Berkeley National Laboratory; Paul T. Spellman, Lawrence Berkeley National Laboratory; Terence P. Speed, University of California, Berkeley

11:35 a.m. **A Joint Model for Nucleosome DNA Sequence and Micrococcal Nuclease—**✱Liqun Xi, Northwestern University; Yvonne Fondufe-Mittendorf, Northwestern University; Jonathan Widom, Northwestern University; Ji-Ping Wang, Northwestern University

11:50 a.m. **Floor Discussion**

522 CC-205
● ▲ Statistical Issues Related to Safety Data—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Christopher Assaid, Merck Research Laboratories

10:35 a.m. **Safety Findings in Clinical Trials: Are They Real, or Just Coincidental?—**✱Mani Lakshminarayanan, Merck & Co., Inc.; Amarjot Kaur, Merck & Co., Inc.

10:50 a.m. **A New Approach To Monitor the Safety Risk in Clinical Trials—**✱Chenxiong (Charles) Le, MedImmune, Inc.; Qing Liu, Johnson & Johnson Pharmaceutical R&D, LLC

11:05 a.m. **Analysis of Vaccine Adverse Event Count Data with Missing Safety Follow-Up: A Multiple Imputation Method—**✱Xiaoming Li, Merck Research Laboratories; Jin Xu, Merck & Co., Inc.; Ivan S.F. Chan, Merck Research Laboratories

11:20 a.m. **Using the Z-Test To Sort Association Rules in Large Spontaneous Reporting Databases—**✱Chandra S. Thames, Bracy Analytics Inc.

11:35 a.m. **Parametric Parsimonious Markov Mixtures for Safety Data Analysis—**✱Xiaodong Wang, sanofi-aventis; Hanxiang Peng, University of Mississippi

11:50 a.m. **Permutation Test Approach To Compare Two Groups of Censored Lognormal Data with Multiple Detection Limits—**✱Wei Zhong, ICON Clinical Research; Jeffrey Welge, University of Cincinnati; Linda Levin, University of Cincinnati; Paul Succop, University of Cincinnati; Rakesh Shukla, University of Cincinnati

12:05 p.m. **Floor Discussion**

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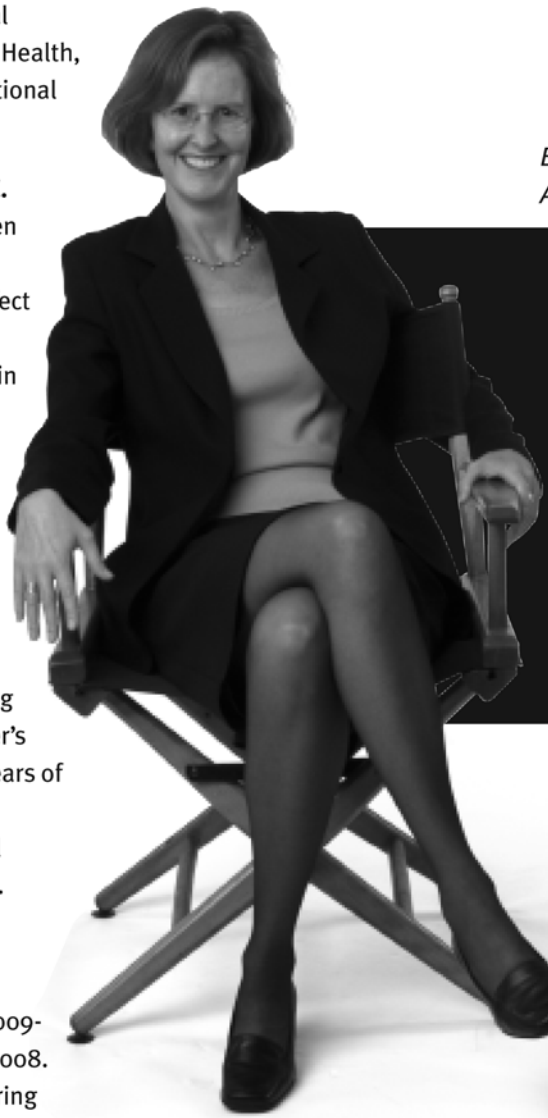

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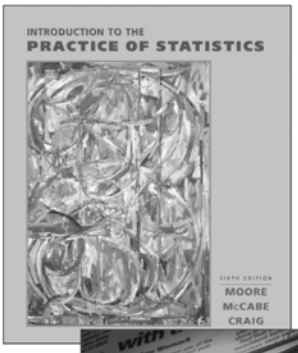

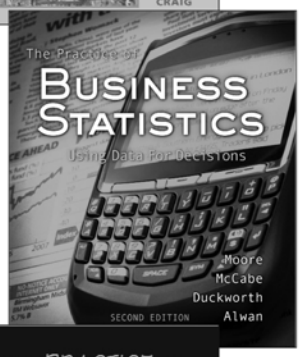

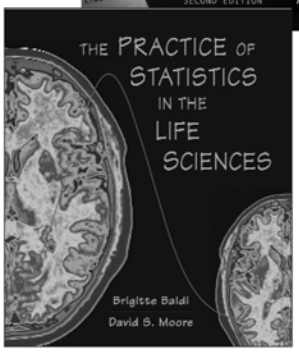

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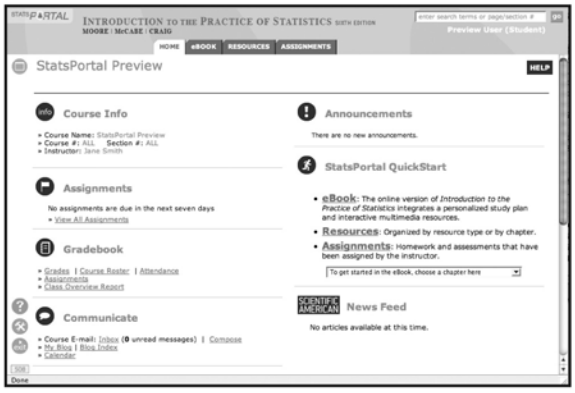

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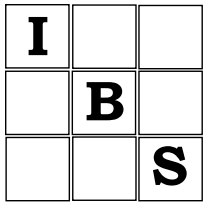

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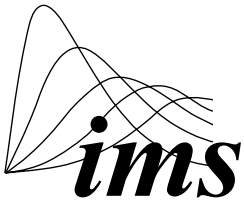

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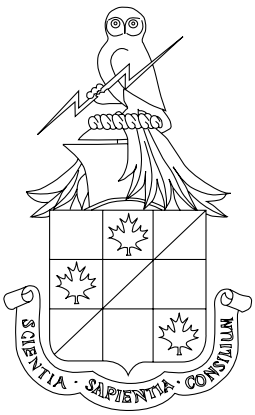

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