✪ Themed Session ● Applied Session ❖ Presenter **CC**-Salt Palace Convention Center **GA**-The Grand America Hotel

MONDAY, JULY 30

Tours

TR05 Crossroads of the West City Tour
9:00 a.m.–12:00 p.m. CC-South Foyer (200 South Street)

TR06 Kennecott Copper Mine and Great Salt Lake
1:00 p.m.–5:00 p.m. CC-South Foyer (200 South Street)

Committee/Business Meetings & Other Activities

7:00 a.m.–8:30 a.m. GA-Vienna
***Technometrics* Management Committee (closed)**
Chair(s): Randy R. Sitter, Simon Fraser University

7:00 a.m.–8:30 a.m. GA-Ambassador
SPAIG Committee Meeting (closed)
Chair(s): George Williams, Amgen Inc.

7:00 a.m.–8:30 a.m. GA-Bagatelle
Section on Health Policy Statistics Executive Committee Meeting (closed)
Chair(s): Therese Stukel, Institute for Clinical Evaluative Sciences

7:00 a.m.–8:30 a.m. CC-Kenneth Knight Board Room
Committee on Membership Retention and Recruitment Meeting (closed)
Chair(s): Dayanand Naik, Old Dominion University

7:00 a.m.–8:30 a.m. GA-Sussex
ASA Science Policy Task Force Business Meeting
Chair(s): Virginia A. de Wolf, Consultant

7:00 a.m.–8:30 a.m. GA-Embassy
Section on Government Statistics Executive Committee Meeting (closed)
Chair(s): Steve H. Cohen, National Science Foundation

7:00 a.m.–8:30 a.m. GA-Milano
Survey Review Committee Annual Meeting
Chair(s): Virginia Lesser, Oregon State University

7:00 a.m.–8:30 a.m. GA-Fontainbleau
Section on Statistical Graphics Executive Committee (closed)
Chair(s): Jeffrey Solka, Naval Surface Warfare Center

7:00 a.m.–8:30 a.m. GA-Venice
ASA-MAA Joint Committee on Undergraduate Statistics Meeting
Chair(s): Robin Lock, St. Lawrence University

7:00 a.m.–8:30 a.m. GA-Tuscany
Section on Teaching Statistics in the Health Sciences Executive Committee Meeting (closed)
Chair(s): Marlene Egger, University of Utah

7:00 a.m.–9:00 a.m. GA-Versailles
ASA/SIAM Book Series Editorial Board Meeting (closed)
Chair(s): Sara Murphy, Society for Industrial and Applied Mathematics

7:00 a.m.–9:00 a.m. GA-Provence
Social Statistics Section Executive Board Meeting (closed)
Chair(s): Jennifer Madans, National Center for Health Statistics

7:00 a.m.–6:00 p.m. CC-252 A, CC-252B
Speaker Work Rooms

7:00 a.m.–11:00 p.m. CC-South Foyer
Cyber Center

7:30 a.m.–8:30 a.m. GA-Grenoble
Council of Chapters International Science and Engineering Fair (ISEF) Breakfast Meeting (closed)
Chair(s): S. Lynne Stokes, Southern Methodist University

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Salt Palace Convention Center **GA**-The Grand America Hotel

7:30 a.m.–8:30 a.m. GA-Belvedere
Deming Lectureship Committee Business Meeting (closed)
Chair(s): William H. Woodall, Virginia Polytechnic Institute and State University; Nicholas I. Fisher, University of Sydney

7:30 a.m.–9:00 a.m. GA-Murano Garden Salon
Carnegie Mellon Alumni and Faculty Breakfast (closed)
Organizer(s): Margie Smykla, Carnegie Mellon University

7:30 a.m.–12:00 p.m. GA-Riviera
Biopharmaceutical Section Executive Committee Meeting (closed)
Chair(s): Brian L. Wiens, Gilead Colorado

7:30 a.m.–6:00 p.m. CC-South Foyer
JSM Main Registration and ASA Membership/Special Assistance Desk

8:00 a.m.–9:30 a.m. GA-Audubon
Committee on Applied Statisticians Annual Business Meeting
Chair(s): Mani Y. Lakshminarayanan, Pfizer Inc.

8:00 a.m.–6:00 p.m. CC-Main Lobby, Level 2
Salt Lake City Visitors Information Center

8:00 a.m.–6:00 p.m. CC-Exhibit Hall C
Career Placement Service

8:00 a.m.–6:00 p.m. CC-Exhibit Hall D
Exhibitor Lounge

8:00 a.m.–9:00 p.m. GA-Envoy
Meeting Within a Meeting (closed, separate registration required)
Chair(s): Martha Aliaga, American Statistical Association

8:30 a.m.–9:30 a.m. GA-Grenoble
Council of Chapters Governing Board Planning and Executive Committee Meeting (closed)
Chair(s): J. Lynn Palmer, The University of Texas M. D. Anderson Cancer Center

8:30 a.m.–9:30 a.m. GA-Grenoble Side Room
Council of Chapters Chapter Status Meeting (closed)
Chair(s): June Morita, University of Washington

9:00 a.m.–10:00 a.m. GA-Milano
Transportation Statistics Interest Group Meeting
Organizer(s): Promod Chandhok, Bureau of Transportation Statistics

9:00 a.m.–10:30 a.m. GA-Sussex
***JASA* Editors Meeting (closed)**
Chair(s): Lisa Hisel, American Statistical Association

9:00 a.m.–5:00 p.m. CC-South Foyer
ASA Marketplace

9:00 a.m.–6:00 p.m. CC-Exhibit Hall D
EXPO 2007

9:00 a.m.–6:00 p.m. CC-Exhibit Hall D
ASA Booth #101

9:30 a.m.–2:00 p.m. GA-Provence
Council of Chapters Governing Board Meeting (closed)
Chair(s): J. Lynn Palmer, The University of Texas M. D. Anderson Cancer Center

10:00 a.m.–11:30 a.m. GA-Savoy
ASA Caucus of Academic Representatives Meeting
Chair(s): Kenneth Koehler, Iowa State University

10:15 a.m.–10:45 a.m. CC-Various Locations
JSM Coffee Break Sponsored by GfK

10:30 a.m.–1:45 p.m. GA-Versailles
JSM 2008 Program Committee Meeting
Chair(s): Russell Lenth, The University of Iowa

12:00 p.m.–2:00 p.m. GA-Vienna
IMS Editors Meeting I (closed)
Organizer(s): Elyse Gustafson, Institute of Mathematical Statistics

12:00 p.m.–2:00 p.m. GA-Fontainbleau
IMS Editors Meeting II (closed)
Organizer(s): Elyse Gustafson, Institute of Mathematical Statistics

12:30 p.m.–2:00 p.m. GA-Belvedere
Section on Statistical Computing Executive Committee Meeting (closed)
Chair(s): John F. Monahan, North Carolina State University

12:30 p.m.–2:00 p.m. GA-Embassy
Committee on Gay and Lesbian Concerns in Statistics Business Meeting
Chair(s): Barry Johnson, Internal Revenue Service

12:30 p.m.–2:00 p.m. GA-Sussex
Section on Bayesian Statistical Science Executive Business Meeting (closed)
Chair(s): Dipak Dey, University of Connecticut

12:30 p.m.–2:00 p.m. GA-Tuscany
University of Missouri-Columbia Statistics Luncheon ($20 fee required at the door)
Organizer(s): Nancy Flournoy, University of Missouri-Columbia

12:30 p.m.–2:00 p.m. GA-Audubon
***Statistics in Medicine* Editorial Board Meeting and Luncheon (closed)**
Organizer(s): Ralph B. D'Agostino, Sr., Boston University

12:30 p.m.–2:00 p.m. GA-Grenoble
***Journal of Computational and Graphical Statistics* Management Committee Meeting (closed)**
Chair(s): Dianne Cook, Iowa State University

2:30 p.m.–4:00 p.m. CC-Kenneth Knight Board Room
Current Index to Statistics Management Committee Meeting (closed)
Chair(s): Duncan Murdoch, University of Western Ontario

3:40 p.m.–4:00 p.m. CC-254 C
Presentation of 2007 Roger Herriot Award with Reception (open)
Chair(s): Daniel H. Weinberg, U.S. Census Bureau

4:00 p.m.–6:00 p.m. CC-155 C
CAUSE Activists Meeting (closed)
Organizer(s): Dennis K. Pearl, The Ohio State University

4:30 p.m.–6:00 p.m. GA-Belvedere
Section on Nonparametric Statistics Executive Committee Meeting (closed)
Chair(s): Pranab K. Sen, The University of North Carolina at Chapel Hill

5:00 p.m.–6:00 p.m. CC-250 C
Medical Devices Statistics Group Annual Meeting
Organizer(s): Estelle Russek-Cohen, U.S. Food and Drug Administration

5:00 p.m.–6:30 p.m. CC-Kenneth Knight Board Room
Section on Risk Analysis Business Meeting
Chair(s): Robert Stine, University of Pennsylvania

5:00 p.m.–6:30 p.m. GA-Milano
***Journal of Quality Technology* Editorial Review Board Meeting (closed)**
Organizer(s): Enrique del Castillo, The Pennsylvania State University

5:00 p.m.–7:00 p.m. GA-Fontainbleau
Statistical Society of Canada Reception (all are welcome)
Organizer(s): Christian Genest, Université Laval

5:00 p.m.–7:00 p.m. GA-Savoy
NISS/SAMSI Reception
Organizer(s): Alan Karr, National Institute of Statistical Sciences

5:00 p.m.–8:00 p.m. GA-Tuscany
Texas A&M University Aggie Reunion (closed)
Organizer(s): Simon Sheather, Texas A&M University

5:30 p.m.–7:00 p.m. GA-Audubon
Caucus for Women in Statistics Reception
Organizer(s): Tena Katsaounis, The Ohio State University

5:30 p.m.–7:00 p.m. Off Property-Squatters Pub Brewery
Section on Health Policy Statistics Business Meeting/ Mixer
Chair(s): Therese Stukel, Institute for Clinical Evaluative Sciences

5:30 p.m.–7:00 p.m. GA-Provence
Christian Statisticians Informal Discussion
Organizer(s): Robert W. Mee, University of Tennessee

5:30 p.m.–7:00 p.m. GA-Embassy
Section on Statistics in Epidemiology Executive Committee Meeting (closed)
Chair(s): Lisa M. Sullivan, Boston University

5:30 p.m.–7:00 p.m. CC-155 B
Biometrics Section Business Meeting
Chair(s): Thomas R. Tenhave, University of Pennsylvania

5:30 p.m.–7:00 p.m. CC-Ballroom A
The University of North Carolina at Chapel Hill Department of Biostatistics Alumni and Current Faculty and Student Reception
Organizer(s): Michael Kosorok, The University of North Carolina at Chapel Hill

5:30 p.m.–7:00 p.m. CC-150 A-C
Section on Statistics in Sports Business Meeting
Chair(s): Scott Evans, Harvard University

5:30 p.m.–7:00 p.m. GA-Venice
Section on Teaching Statistics in the Health Sciences Business Meeting/Mixer
Chair(s): Marlene Egger, University of Utah

5:30 p.m.–7:30 p.m. GA-Riviera
Section on Quality and Productivity Strategic Planning Meeting (closed)
Chair(s): William Guthrie, National Institute of Standards and Technology

5:30 p.m.–7:30 p.m. GA-Vienna
Social Statistics Section Business Meeting and Social
Chair(s): Jennifer Madans, National Center for Health Statistics

5:45 p.m.–6:45 p.m. CC-Ballroom D
ASA President's Invited Speaker Reception (closed, by invitation only)
Chair(s): Mary Ellen Bock, Purdue University

6:00 p.m.–7:30 p.m. GA-Grand Salon
Google Reception
Organizer(s): Kate Macevicz, Google

6:00 p.m.–7:30 p.m. GA-Venezia Garden Salon
JSM Student Mixer (students only, included in registration fee)
Chair(s): Dayanand Naik, Old Dominion University

6:00 p.m.–7:30 p.m. CC-151 A-C
CDC & ATSDR Statisticians Open Meeting
Organizer(s): Timothy Green, Centers for Disease Control and Prevention

6:00 p.m.–8:00 p.m. GA-Ambassador
Section on Survey Research Methods Executive Committee Meeting (closed)
Chair(s): William D. Kalsbeek, The University of North Carolina at Chapel Hill

6:00 p.m.–8:00 p.m. CC-151 D-F
Korean Statisticians Annual Meeting (closed)
Organizer(s): Sin-Ho Jung, Duke University

6:00 p.m.–8:00 p.m. GA-Sussex
Eli Lilly Faculty Reception (closed, by invitation only)
Organizer(s): Todd Sanger, Eli Lilly and Company

6:30 p.m.–7:00 p.m. CC-Kenneth Knight Boardroom
Section on Risk Analysis Executive Committee Meeting
Chair(s): Robert Stine, University of Pennsylvania

6:30 p.m.–7:30 p.m. GA-Murano Garden Salon
ASA Long-Time Member Reception (closed, by invitation only)
Chair(s): Dayanand Naik, Old Dominion University

6:30 p.m.–8:30 p.m. GA-Versailles
University of Washington Alumni Reception
Organizer(s): Xiao-Hua (Andrew) Zhou, University of Washington

6:30 p.m.–9:00 p.m. GA-Bagatelle
Southern Methodist University Alumni Social (closed)
Organizer(s): Wayne Woodward, Southern Methodist University

7:00 p.m.–9:00 p.m. CC-254 B
Careers at Merck Research Laboratories (closed, by invitation only)
Organizer(s): Beverly Jacobsen, Merck & Co., Inc.

7:30 p.m.–10:00 p.m. CC-Ballroom C
Joint Sections on Statistical Computing and Graphics Business Meeting and Mixer
Chair(s): John F. Monahan, North Carolina State University; Jeffrey Solka, Naval Surface Warfare Center

9:30 p.m.–11:00 p.m. CC-Ballroom A

IMS Presidential Address Reception

Organizer(s): Elyse Gustafson, Institute of Mathematical Statistics

Continuing Education (Fee Events)

CE_15C

Categorical Data Analysis

8:00 a.m.–12:00 p.m. CC-151 D-F

ASA

Instructor(s): Charles S. Davis, CSD Biostatistics

CE_16C

Multiple Comparisons and Multiple Tests

8:30 a.m.–5:00 p.m. CC-151 G

ASA

Instructor(s): Peter Westfall, Texas Tech University

CE_17C

Analysis of Clinical Trials: Theory and Applications

8:30 a.m.–5:00 p.m. CC-150 G

Biopharmaceutical Section, ASA

Instructor(s): Christy Chuang-Stein, Pfizer Inc.; Alex Dmitrienko, Eli Lilly and Company; Geert Molenberghs, Hasselt University

CE_18C

Temporal Alerting Algorithms for Biosurveillance

8:30 a.m.–5:00 p.m. CC-150 A-C

Section on Statisticians in Defense and National Security, Section on Risk Analysis, Section on Quality and Productivity, ASA

Instructor(s): Howard S. Burkom, The Johns Hopkins University; David Banks, Duke University

CE_19C

Practical Bayesian Clinical Trial Design

8:30 a.m.–5:00 p.m. CC-150 D-F

Section on Bayesian Statistical Science, ASA

Instructor(s): Peter F. Thall, The University of Texas M. D. Anderson Cancer Center

CE_20C

Classification and Regression Trees

8:30 a.m.–5:00 p.m. CC-151 A-C

ASA

Instructor(s): Wei-Yin Loh, University of Wisconsin-Madison

CE_21C

Meta-Analysis: Statistical Methods for Combining the Results of Independent Studies

1:00 p.m.–5:00 p.m. CC-151 D-F

ASA

Instructor(s): Ingram Olkin, Stanford University

Roundtables with Coffee 7:00 a.m.–8:15 a.m.

73 **CC-Ballroom D**

ASA Council of Chapters Roundtable with Coffee (fee event)

Council of Chapters

Organizer(s): V. A. Samaranayake, University of Missouri-Rolla

ML01 **Reaching Out to the K–12 Community—**❖Jerry Moreno, John Carroll University

74 **CC-Ballroom D**

Section on Statistical Education Roundtable with Coffee (fee event)

Section on Statistical Education

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

ML02 **Successful Group Projects—**❖David Zeitler, Grand Valley State University

75 **CC-Ballroom D**

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

ML03 **Hierarchical Spatial Models Bridging Ecology and Public Health—**❖Lance Waller, Emory University

ML04 **What's the Future for Point Process Modeling in Ecology?—**❖Philip Dixon, Iowa State University

76 **CC-Ballroom D**

Section on Statistics in Epidemiology Roundtable with Coffee (fee event)

Section on Statistics in Epidemiology

Organizer(s): William E. Barlow, Cancer Research and Biostatistics

ML05 **Building and Using Disease Prediction Models in the Real World—**❖Heejung Bang, Cornell University

77 CC-Ballroom D

Section on Statistics in Sports Roundtable with Coffee (fee event)

Section on Statistics in Sports

Organizer(s): Michael Schell, Moffitt Cancer Center

ML06 **Moneyball and the NFL: Can It work?—**❖Keith Schleicher, Capital One

78 CC-Ballroom D

Section on Survey Research Methods Statistics Roundtable with Coffee (fee event)

Section on Survey Research Methods

Organizer(s): David Marker, Westat

ML07 **Web Panels: The Future of Survey Research?—**❖Karol Krotki, RTI International

79 CC-Ballroom D

Section on Teaching Statistics in the Health Sciences Roundtable with Coffee (fee event)

Section on Teaching Statistics in the Health Sciences

Organizer(s): Jodi Lapidus, Oregon Health & Science University

ML08 **Teaching Community Collaborators To Understand Health Research Methods and Results—**❖Katrina Ramsey, Northwest Portland Area Indian Health Board

Special Presentation 8:30 a.m.–10:20 a.m.

80 CC-Ballroom B

Introductory Overview Lecture 2: Statistical Machine Learning and Its Applications in Bioinformatics—Other

ASA, IMS, ENAR, WNAR, SSC, Section on Nonparametric Statistics, Section on Statisticians in Defense and National Security

Organizer(s): Yufeng Liu, The University of North Carolina at Chapel Hill

Chair(s): Yufeng Liu, The University of North Carolina at Chapel Hill

8:35 a.m. **Some Recent Advances in Classification: A Statistical Perspective—**❖Ji Zhu, University of Michigan

9:20 a.m. **Applications of Statistical Machine-Learning to Modern Biological Datasets—**❖Jon D. McAuliffe, University of Pennsylvania

10:05 a.m. **Floor Discussion**

Invited Sessions 8:30 a.m.–10:20 a.m.

81 CC-255 B

● ✪ Statistical Methods for Gene Regulatory Networks—Invited

Biometrics Section, ENAR, Section on Statistics in Epidemiology

Organizer(s): Tian Zheng, Columbia University

Chair(s): Ying Wei, Columbia University

8:35 a.m. **Bayesian Error Analysis Model for Reconstructing Transcriptional Regulatory Networks—**❖Ning Sun, Yale University**;** Raymond J. Carroll, Texas A&M University**;** Hongyu Zhao, Yale University

9:00 a.m. **Studying Coregulation and Inter-regulation of Genes via eQTL Mapping—**❖Tian Zheng, Columbia University

9:25 a.m. **Self-Correcting Maps of Molecular Pathways—**❖Andrey Rzhetsky, Columbia University**;** Tian Zheng, Columbia University**;** Chani Weinreb, Columbia University

9:50 a.m. **Using Sequence Information to Predict Gene Regulation—**❖Jun S. Liu, Harvard University**;** Qing Zhou, University of California, Los Angeles

10:15 a.m. **Floor Discussion**

82 CC-250 D

● ✪ Administrative Records and Data Integration—Invited

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

Organizer(s): Jeremy Wu, U.S. Census Bureau

Chair(s): Donald B. Rubin, Harvard University

8:35 a.m. **Maintaining Confidentiality in Administrative and Integrated Databases—**Jerome P. Reiter, Duke University**;** ❖Satkartar Kinney, Duke University

9:00 a.m. **Synthetic Data for Administrative Record Applications at LEHD—**❖Jeremy Wu, U.S. Census Bureau**;** John Abowd, Cornell University

9:25 a.m. **Synthetic Data Disclosure Control for American Community Survey Group Quarters—**❖Rolando Rodríguez, U.S. Census Bureau**;** Robert H. Creecy, U.S. Census Bureau

9:50 a.m. Disc: Alan R. Tupek, U.S. Census Bureau

10:10 a.m. **Floor Discussion**

83 CC-258
Recent Advances in Survival Analysis Beyond Cox Model—Invited

IMS, ENAR, Section on Statistics in Epidemiology, Section on Risk Analysis, Biometrics Section, Biopharmaceutical Section, Section on Physical and Engineering Sciences, WNAR

Organizer(s): Lu Tian, Northwestern University

Chair(s): Lu Tian, Northwestern University

8:35 a.m. **Nonproportional Hazards Models for Censored Data—**❖Zhezhen Jin, Columbia University

9:00 a.m. **Semiparametric Accelerated Failure Time Model with Missing Data—**❖Menggang Yu, Indiana University Purdue University Indianapolis

9:25 a.m. **Rank Regression, Accelerated Failure Time Model, and Empirical Likelihood—**❖Mai Zhou, University of Kentucky

9:50 a.m. **Varying Coefficient Cox Model with Nonparametric Longitudinal Covariates—**❖Jimin Ding, Washington University in St. Louis**;** Jane-Ling Wang, University of California, Davis

10:15 a.m. **Floor Discussion**

84 CC-260
● ✪ Accreditation of Professional Statisticians—Invited

Section on Statistical Consulting, SSC

Organizer(s): Judith-Anne W. Chapman, Queen's University

Chair(s): Ralph G. O'Brien, The Cleveland Clinic

8:35 a.m. **SSC Accreditation: The Canadian Model—**❖Judith-Anne W. Chapman, Queen's University

9:00 a.m. **Academia and the Professional Statistician Community—**❖Mary E. Thompson, University of Waterloo

9:25 a.m. **The ASA Consideration of Accreditation—**❖Mary Batcher, Ernst & Young

9:50 a.m. Disc: Fritz Scheuren, NORC at the University of Chicago

10:10 a.m. **Floor Discussion**

85 CC-355 E
● *Biometrics* Editor Invited Session—Invited

WNAR, ENAR, Biometrics Section

Organizer(s): Laurance Freedman, Bar Ilan University; Mike Kenward, London School of Hygiene and Tropical Medicine; Naisyin Wang, Texas A&M University

Chair(s): Geert Molenberghs, Hasselt University

8:35 a.m. **Multilist Population Estimation with Incomplete and Partial Stratification—**❖Jason M. Sutherland, Indiana University Purdue University Indianapolis

9:05 a.m. **Bayesian Hierarchical Spatially Correlated Functional Data Analysis with Application to Colon Carcinogenesis—**❖Veera Baladandayuthapani, The University of Texas M. D. Anderson Cancer Center**;** Bani Mallick, Texas A&M University**;** Raymond J. Carroll, Texas A&M University**;** Mee Young Hong, University of California, Los Angeles**;** Nancy D. Turner, Texas A&M University**;** Joanne R. Lupton, Texas A&M University

9:35 a.m. **Bayesian Methods for Predicting Interacting Protein Pairs Using Domain Information—**Inyoung Kim, Yale University**;** Yin Liu, Yale University**;** ❖Hongyu Zhao, Yale University

10:05 a.m. **Floor Discussion**

86 CC-250 EF
● ✪ Exploring Models Interactively—Invited

Section on Statistical Graphics, Section on Teaching Statistics in the Health Sciences, Section on Statistical Consulting

Organizer(s): Antony Unwin, University of Augsburg

Chair(s): Antony Unwin, University of Augsburg

8:35 a.m. **Bayesian Information Analysis—**❖Aleks Jakulin, Columbia University**;** Andrew Gelman, Columbia University

9:00 a.m. **Exploratory Model Analysis: Interactive Graphical Methods for Model Selection and Comparison—**❖Simon Urbanek, AT&T Labs - Research

9:25 a.m. **Grammatical Visualization of Statistical Models—**Graham Wills, SPSS Inc.**;** ❖Chunling Zhang, SPSS Inc.

9:50 a.m. **Exploring Models for Clustering Data—**❖Dianne Cook, Iowa State University

10:10 a.m. **Floor Discussion**

87 CC-155 E
● ✪ Under the Microscope: Statistical Methods for Molecular Biology—Invited

General Methodology, Biometrics Section, Section on Statistics in Epidemiology, Section on Statistical Computing, Biopharmaceutical Section

Organizer(s): Elizabeth H. Slate, Medical University of South Carolina

Chair(s): Elizabeth H. Slate, Medical University of South Carolina

8:35 a.m. **Efficient Design and Analysis of Genome-Wide Association Studies—**❖Michael Boehnke, University of Michigan

9:00 a.m. **Stochastic Search Gene Suggestion: Bayesians and Biology Meet Again!**—❖Michael D. Swartz, The University of Texas M. D. Anderson Cancer Center

9:25 a.m. **Statistical Models of Global Transcription Regulatory Mechanisms in Cancer**—❖Wei Li, Harvard School of Public Health; ❖Xiaole S. Liu, Dana-Farber Cancer Institute

9:50 a.m. **Scale-Based Methods in the Analysis of Proteomic Data**—❖Timothy Randolph, Fred Hutchinson Cancer Research Center

10:15 a.m. **Floor Discussion**

88 CC-155 F

● ✪ Recent Development in Econometric Time Series—Invited

Business and Economics Statistics Section

Organizer(s): Sung K. Ahn, Washington State University

Chair(s): Sung K. Ahn, Washington State University

8:35 a.m. **Cointegration Analysis with Mixed Frequency Data**—❖Byeongchan Seong, Chung-Ang University; Sung K. Ahn, Washington State University; Peter Zadrozny, Bureau of Labor Statistics

9:00 a.m. **Studying Interactions Without Multivariate Modeling**—❖Alain Hecq, University of Maastricht; Gianluca Cubadda, University of Tor Vergata; Franz Palm, University of Maastricht

9:25 a.m. **Bayesian Change Point Model for Time Series**—❖Sinsup Cho, Seoul National University; Juwon Kim, Seoul National University; Seungmin Nam, Samsung Fire & Marine Insurance Co., LTD

9:50 a.m. **A Unifying Framework for Analyzing Common Cyclical Features in Cointegrated Time Series**—❖Gianluca Cubadda, University of Tor Vergata

10:15 a.m. **Floor Discussion**

89 CC-255 E

Causal Effects of Individualized Treatment Rules—Invited

IMS, Biometrics Section, WNAR

Organizer(s): Mark J. van der Laan, University of California, Berkeley

Chair(s): Mark J. van der Laan, University of California, Berkeley

8:35 a.m. **Causal Inference in Sequentially Randomized Trials Based on Realistic Individualized Treatment Rules**—❖Oliver Bembom, University of California, Berkeley

9:00 a.m. **Optimal Start of Treatment Based on Time-Dependent Covariates**—❖Judith J. Lok, Harvard School of Public Health; James Robins, Harvard School of Public Health; Miguel A. Hernan, Harvard School of Public Health

9:25 a.m. **Estimation of the Effect of Dynamic Treatment Regimes Under Flexible Dynamic Visit Regimes**—❖Andrea Rotnitzky, Universidad Torcuato Di Tella; Liliana Orellana, Universidad de Buenos Aire

9:50 a.m. Disc: James Robins, Harvard School of Public Health

10:10 a.m. **Floor Discussion**

90 CC-251 D

The Importance of Statistical Reasoning in Law and Legal Science—Invited

Committee on Law and Justice Statistics, Section on Nonparametric Statistics, Section on Statistical Consulting

Organizer(s): Joseph L. Gastwirth, George Washington University

Chair(s): Weiwen Miao, Macalester College

8:35 a.m. **Doctrine, District Courts, and Docketology**—❖Alan J. Izenman, Temple University; David Hoffman, Temple University

9:00 a.m. **Two Percentiles in Court: The Zuni School District Case**—❖Joseph L. Gastwirth, George Washington University

9:25 a.m. **Verdict on Verdicts: Statistical Measurement of the Accuracy of Jury Verdicts**—❖Bruce D. Spencer, Northwestern University

9:50 a.m. **The Effect of Serial Correlation on Statistical Evidence in Legal Cases**—❖Yulia R. Gel, University of Waterloo; Weiwen Miao, Macalester College; Joseph L. Gastwirth, George Washington University

10:15 a.m. **Floor Discussion**

Invited Panels 8:30 a.m.–10:20 a.m.

91 CC-251 E

Implementing GAISE in Our Classrooms—Invited

Section on Statistical Education

Organizer(s): Patti Collings, Brigham Young University

Chair(s): Christine Franklin, University of Georgia

Panelists:
- ❖ Carolyn P. Dobler, Gustavus Adolphus College
- ❖ Carolyn K. Cuff, Westminster College
- ❖ E. Jacquelin Dietz, Meredith College

❖ Gary Kader, Appalachian State University
❖ Dexter C. Whittinghill, Rowan University

10:15 a.m. **Floor Discussion**

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

92 CC-251 A

● ✪ Section on Health Policy Statistics Student Award Winners—Topic-Contributed

Section on Health Policy Statistics

Organizer(s): Anirban Basu, The University of Chicago

Chair(s): Bonnie Ghosh-Dastidar, RAND Corporation

8:35 a.m. **Evaluating Bias Correction in Weighted Proportional Hazards Regression—**❖Qing Pan, University of Michigan**;** Douglas Schaubel, University of Michigan

8:55 a.m. **Analysis of Longitudinal Data To Evaluate a Policy Change—**❖Benjamin French, University of Washington**;** Patrick J. Heagerty, University of Washington

9:15 a.m. **Testing for Trends in a Two-State Markov Model with Applications in Smoking Cessation Studies—**❖Charles Minard, The University of Texas M. D. Anderson Cancer Center**;** Wenyaw Chan, The University of Texas at Houston**;** Carol J. Etzel, The University of Texas M. D. Anderson Cancer Center**;** David Wetter, The University of Texas M. D. Anderson Cancer Center

9:35 a.m. **Is Newer Always Better? Re-evaluating the Benefits of Newer Pharmaceuticals—**❖Michael Law, Harvard Medical School/Harvard Pilgrim HealthCare**;** Karen Grépin, Harvard University

9:55 a.m. **Evaluating Predictive Capacity of Continuous Biomarkers—**❖Ying Huang, University of Washington**;** Margaret Pepe, Fred Hutchinson Cancer Research Center**;** Ziding Feng, Fred Hutchinson Cancer Research Center

10:15 a.m. **Floor Discussion**

93 CC-155 A

● ✪ Design and Analysis of Method Transfer Studies in Nonclinical Pharmaceutical Development—Topic-Contributed

Biopharmaceutical Section

Organizer(s): James Schwenke, Boehringer Ingelheim Pharmaceuticals, Inc.

Chair(s): James Colaianne, J&JPRD

8:35 a.m. **Design and Analysis of Analytical Method Transfer Studies—**❖James Schwenke, Boehringer Ingelheim Pharmaceuticals, Inc.

8:55 a.m. **Design and Analysis of Method Transfer Studies in Nonclinical Pharmaceutical Development—**❖Jinglin Zhong, U.S. Food and Drug Administration**;** Yi Tsong, U.S. Food and Drug Administration

9:15 a.m. **Some Useful Experimental Designs in Method Transfer Experiments—**❖Jyh-Ming Shoung, J&JPRD**;** Stan Altan, J&JPRD

9:35 a.m. **Total Error-Based Criterion for Analytical Method Transfer Analyses—**❖Eric Rozet, University of Liege**;** Walthère Dewe, GlaxoSmithKline

9:55 a.m. **Approach To Assess the Equivalence Range for an Analytical Methods Transfer—**❖Rene Kubiak, Boehringer Ingelheim

10:15 a.m. **Floor Discussion**

94 CC-155 C

● ✪ Practical Considerations for Adjustment of Baseline Covariate and Center Effects in Multicenter Clinical Trials—Topic-Contributed

Biopharmaceutical Section, ENAR, WNAR

Organizer(s): Abdul Sankoh, sanofi-aventis

Chair(s): Abdul Sankoh, sanofi-aventis

8:35 a.m. **Exploration of a Treatment-by-Region Interaction in a Clinical Trial Setting: Can the Interaction Be Explained by Clinical Factors?—**❖Cristiana Gassmann-Mayer, Johnson & Johnson PRD**;** Rachel B. Weinstein, Johnson & Johnson PRD**;** Jesse A. Berlin, Johnson & Johnson PRD

8:55 a.m. **Modeling Response, Interaction, and Subgroup Analyses: Some Practical Issues—**❖Mohammad Huque, U.S. Food and Drug Administration**;** Mohamed Alosh, U.S. Food and Drug Administration

9:15 a.m. **Adjusting for Center in the Analysis of Multicenter Clinical Trials—**❖Valerie Durkalski, Medical University of South Carolina

9:35 a.m. **A Simulation Study on Covariate Adjusted Models—**❖Xiaohong Huang, sanofi-aventis**;** Abdul Sankoh, sanofi-aventis

9:55 a.m. **Modeling Longitudinal Count Data with Possibility of Dropouts—**❖Mohamed Alosh, U.S. Food and Drug Administration

10:15 a.m. **Floor Discussion**

95 CC-355 C

● ✪ Analysis of Recurrent Events Data—Topic-Contributed

ENAR, Biometrics Section, Section on Physical and Engineering Sciences, Section on Risk Analysis, WNAR, Section on Statistics in Epidemiology

Organizer(s): Lei Liu, University of Virginia

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

8:35 a.m. **Semiparametric Analysis of Correlated Recurrent and Terminal Events—**❖Yining Ye, Amgen Inc.; John D. Kalbfleisch, University of Michigan; Douglas Schaubel, University of Michigan

8:55 a.m. **Some Aspects of Recurrent Event Modeling—**❖Edsel A. Pena, University of South Carolina; Akim Adekpedjou, University of South Carolina; Jonathan Quiton, University of South Carolina

9:15 a.m. **A Novel Estimation Method in the Joint Frailty Models of Correlated Survival Data with Informative Censoring—**❖Lei Liu, University of Virginia; Xuelin Huang, The University of Texas M. D. Anderson Cancer Center

9:35 a.m. **General Transformation Models for Joint Analysis of Recurrent Events and Terminal Event—**❖Donglin Zeng, The University of North Carolina at Chapel Hill; Danyu Lin, The University of North Carolina at Chapel Hill

9:55 a.m. **Methods for Modeling the Recurrent Event Mean in the Presence of Time-Varying Covariates and Time-Dependent Effects—**❖Douglas Schaubel, University of Michigan

10:15 a.m. **Floor Discussion**

96 CC-355 F

● ✪ Recent Developments in Bayesian Variable Selection Methods—Topic-Contributed

Section on Bayesian Statistical Science, ENAR, WNAR

Organizer(s): Sujit Ghosh, North Carolina State University

Chair(s): Dipak Dey, University of Connecticut

8:35 a.m. **Bayesian Variable Selection in Gaussian Process for Cox Models—**❖Naijun Sha, University of Texas at El Paso; Marina Vannucci, Texas A&M University; Mahlet G. Tadesse, University of Pennsylvania

8:55 a.m. **Bayesian Variable Selection in Proportional Hazards Models with Frailties—**❖Zhen Chen, University of Pennsylvania

9:15 a.m. **Nonparametric Bayes Local Regression and Variable Selection—**❖Yeonseung Chung, The University of North Carolina at Chapel Hill; David B. Dunson, National Institute of Environmental Health Sciences

9:35 a.m. **A Variable Selection Method for Linear Models Using Modified Zellner's Prior—**❖Arun Krishna, North Carolina State University; Sujit Ghosh, North Carolina State University; Howard D. Bondell, North Carolina State University

9:55 a.m. **A Decision-Theoretic Approach to the Variable Selection Problem—**❖Dhruv Sharma, North Carolina State University; Sujit Ghosh, North Carolina State University

10:15 a.m. **Floor Discussion**

97 CC-254 C

● ✪ Section on Bayesian Statistics Student Paper Competition: New Developments in Bayesian Nonparametrics—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Merlise A. Clyde, Duke University

Chair(s): Taeyoung Park, University of Pittsburgh

8:35 a.m. **Bayesian Inference for Directional Conditionally Autoregressive Models—**❖Minjung Kyung, North Carolina State University

8:55 a.m. **Pattern Search Optimization with a Treed Gaussian Process Oracle—**❖Matthew Taddy, University of California, Santa Cruz; Genetha A. Gray, Sandia National Laboratories; Herbert Lee, University of California, Santa Cruz; Robert Gramacy, University of Cambridge; Monica Martinez-Canales, Sandia National Laboratories

9:15 a.m. **Mixtures of Polya Trees for Flexible Spatial Frailty Survival Modeling—**❖Luping Zhao, The University of Minnesota; Timothy E. Hanson, The University of Minnesota; Brad Carlin, The University of Minnesota

9:35 a.m. **The Nested Dirichlet Process—**❖Abel Rodriguez, Duke University; Alan E. Gelfand, Duke University; David B. Dunson, National Institute of Environmental Health Sciences

9:55 a.m. **Weak Consistency of General Bayesian Kernel Mixture in Density Estimation—**❖Yuefeng Wu, North Carolina State University; Subhashis Ghoshal, North Carolina State University

10:15 a.m. **Floor Discussion**

JSM 2007

IMS

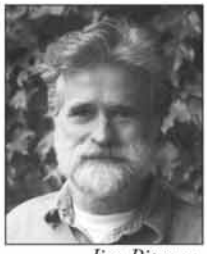
Presidential Address

Monday
July 30, 2007

8:00pm

Convention Center:
Ballroom B

IMS President 2006–07, Jim Pitman, will deliver the 2007 Presidential Address on *"Open access to professional information"*.



Jim Pitman, UC Berkeley

Also this evening:

- Presentation of the 2007 H C Carver Award Medal
- Presentation of New IMS Fellows
- Announcement of 2008 Special Invited Lectures
- Announcement of Laha Award Recipients

Reception immediately following: everyone is welcome

JSM 2007

IMS

Student Mixer

Tuesday
July 31, 2007

5:15–6:45pm

Grand America:
Audubon Room

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 where we will have applications available, or you can join online at www.imstat.org.

IMS Membership is ***free*** for students.

A previous New Members' Reception, at JSM Minneapolis

98 CC-255 F

● ✪ Applications of Machine Learning and Network Tomography in Statistics—Topic-Contributed

Section on Physical and Engineering Sciences

Organizer(s): David Mease, San Jose State University

Chair(s): Marvin Gruber, Rochester Institute of Technology

8:35 a.m. **Making the Best Use of Available Data: The Presence-Only Problem in Ecology—**❖Gillian Ward, Stanford University**;** Trevor Hastie, Stanford University

8:55 a.m. **An Iterative Algorithm for Extending Learners to a Semisupervised Setting—**❖Mark Culp, University of Michigan**;** George Michailidis, The University of Michigan

9:15 a.m. **Evidence Contrary to the Statistical View of Boosting—**❖David Mease, San Jose State University

9:35 a.m. **Adversarial Classification—**❖Bowei Xi, Purdue University**;** Murat Kantarcioglu, The University of Texas at Dallas**;** Christopher Clifton, Purdue University

9:55 a.m. **A Somewhat General Framework for Active Network Tomography—**❖Earl Lawrence, Los Alamos National Laboratory

12:15 p.m. **Floor Discussion**

99 CC-250 C

ACS Multi-Year Estimates Methodology and Results—Topic-Contributed

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

Organizer(s): Anthony Tersine, U.S. Census Bureau

Chair(s): David C. Whitford, U.S. Census Bureau

8:35 a.m. **Methodology for the Production of American Community Survey Multiyear Estimates—**❖Anthony Tersine, Jr., U.S. Census Bureau**;** Mark Asiala, U.S. Census Bureau

8:55 a.m. **Imbedding Model-Assisted Estimation into ACS Estimation—**❖Robert Fay, U.S. Census Bureau

9:15 a.m. **Analysis of Variance Estimates from American Community Survey Multiyear Estimates—**❖Michael Starsinic, U.S. Census Bureau**;** Anthony Tersine, Jr., U.S. Census Bureau

9:35 a.m. **Statistical Issues and Interpretation of the American Community Survey's One-, Three-, and Five-Year Period Estimates—**❖Michael Beaghen, U.S. Census Bureau

9:55 a.m. Disc: John Thompson, NORC at the University of Chicago

10:15 a.m. **Floor Discussion**

100 CC-355 D

● ✪ Recent Developments in Statistical Methodology for Diagnostic Medicine—Topic-Contributed

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

Organizer(s): Jialiang Li, National University of Singapore

Chair(s): Jialiang Li, National University of Singapore

8:35 a.m. **Noniterative, Semiparametric, Least-Squared Method of ROC Curve Estimation—**❖Xiao-Hua (Andrew) Zhou, University of Washington**;** Liansheng Tang, University of Washington

8:55 a.m. **Statistical Methods for Differential Diagnosis of Second Primary Cancers from Metastases—**❖Colin B. Begg, Memorial Sloan-Kettering Cancer Center

9:15 a.m. **Design of Diagnostic Accuracy Studies for PPV and NPV—**❖Jason Fine, University of Wisconsin-Madison**;** David Steinberg, Tel-Aviv University**;** Richard Chappell, University of Wisconsin-Madison

9:35 a.m. **A Unified Approach to Nonparametric Comparison of Receiver Operating Characteristic Curves for Longitudinal and Clustered Data—**Gang Li, University of California, Los Angeles**;** ❖Kefei Zhou, Amgen Inc.

9:55 a.m. Disc: Zhidong Bai, National University of Singapore

10:15 a.m. **Floor Discussion**

Topic-Contributed Panels 8:30 a.m.–10:20 a.m.

101 CC-254 A

● Harnessing the Power of the ASA Archives: Preserving and Accessing ASA's Institutional Documentary Heritage—Topic-Contributed

Committee on ASA Archives and Historical Materials, Committee on Committees, Section on Statistical Education, Section on Teaching Statistics in the Health Sciences

Organizer(s): John P. Deley, Energy Information Administration

Chair(s): Carol J. Lancaster, Medical University of South Carolina

Panelists: ❖ Frank J. Potter, Mathematica Policy Research, Inc.

❖ Melissa Gottwald, Iowa State University

❖ John P. Deley, Energy Information Administration

❖ Ken Williams, Utah State Archives and Records Service

10:15 a.m. **Floor Discussion**

Contributed Sessions 8:30 a.m.–10:20 a.m.

102 CC-255 C

● ✪ Recent Advances in Microarray Data Analysis V—Contributed

Biometrics Section

Chair(s): Naomi Altman, The Pennsylvania State University

8:35 a.m. **Microarray Gene Expression Analysis of Soybean Genome Using R-Bioconductor—**❖Jean Roayaei, National Institutes of Health

8:50 a.m. **Conjugate Hierarchical Modeling of the Error Variance in Tests for Differential Gene Expression—**❖Jason Obsorne, North Carolina State University

9:05 a.m. **False Discovery Rate in Microarray Studies—**❖Moonsu Kang, The University of North Carolina at Chapel Hill

9:20 a.m. **Sparse Partial Least Squares Regression with an Application to the Genome Scale Transcription Factor Activity Analysis—**❖Hyonho Chun, University of Wisconsin-Madison; Sunduz Keles, University of Wisconsin-Madison

9:35 a.m. **Conservatively Optimal Multiple Testing for Comparative Microarray Experiments—**❖James Signorovitch, Harvard University

9:50 a.m. **Improved Significance of Microarrays—**❖Shunpu Zhang, University of Nebraska-Lincoln

10:05 a.m. **Comparison of Meta-Analytical Approaches for Gene Expression Profiling—**❖Heather Adams, University of Illinois at Urbana-Champaign; Sandra Rodriguez-Zas, University of Illinois at Urbana-Champaign; Bruce Southey, University of Illinois at Urbana-Champaign

103 CC-155 D

● ✪ Analysis of Censored Data and Cox's Model—Contributed

Biometrics Section

Chair(s): Jian-Lun Xu, National Cancer Institute

8:35 a.m. **Minimum Distance Estimation in Two-Sample Scale Problem Under the Partial Koziol-Green Model—**❖Ke Wu, California State University, Fresno

8:50 a.m. **Sensitivity of Cox Regression to Nonignorable Censoring—**❖Tao Liu, Brown University; Daniel F. Heitjan, University of Pennsylvania

9:05 a.m. **Dealing with Tied Observation in Estimating Survival Function—**❖Jiantian Wang, Kean University

9:20 a.m. **Test of Fit to a Semiparametric Bivariate Family with Censored Data—**❖Shulamith Gross, Baruch College/CUNY

9:35 a.m. **Quantile Regression for Censored Point Processes—**❖Rajeshwari Sundaram, National Institute of Child Health and Human Development; Subhashis Ghoshal, North Carolina State University

9:50 a.m. **Multivariate Rank-Order Two-Sample Test for Censored Data: More Intuitive Expression of the Treatment Effect—**❖Edward Mascha, The Cleveland Clinic

10:05 a.m. **CUSUMs Based on the Cox Model To Monitor Outcomes at Multicenter Studies—**❖Pinaki Biswas, University of Michigan; John D. Kalbfleisch, University of Michigan

104 CC-255 A

● ✪ Longitudinal Data and Survival Data Modeling—Contributed

Biometrics Section, Section on Health Policy Statistics

Chair(s): Zonghui Hu, National Institutes of Health

8:35 a.m. **Joint Modeling of Longitudinal and Survival Data Using Penalized Corrected Likelihood—**❖Bo Hu, The Cleveland Clinic; Liang Li, The Cleveland Clinic; Tom Greene, The Cleveland Clinic

8:50 a.m. **Analysis of Longitudinally Measured Multivariate Biomarkers and Left-Censored Data—**❖Ghideon S. Ghebregiorgis, University of Pittsburgh; Lisa Weissfeld, University of Pittsburgh

9:05 a.m. **Modeling Longitudinal Biomarker Data with Multiple Assays That Have Different Known Detection Limits—**❖Paul Albert, National Cancer Institute

9:20 a.m. **Regression Analysis of Multivariate Recurrent Event Data with Time-Varying Covariate Effects—**❖Liang Zhu, University of Missouri-Columbia

9:35 a.m. **Analysis of Longitudinally Measured, Left-Censored Biomarkers of Severe Sepsis with Dropout, and Death—**❖M. Abdus Sattar, University of Pittsburgh; Lisa Weissfeld, University of Pittsburgh

9:50 a.m. **Semiparametric Joint Modeling of Longitudinal and Time-to-Event Data Using P-Spline: A Penalized Likelihood Approach—**❖Wen Ye, University of Michigan**;** Xihong Lin, Harvard School of Public Health**;** Jeremy Taylor, University of Michigan

10:05 a.m. **Joint Analysis of Multiple Longitudinal Outcomes and a Time-to-Event Using a Nonlinear Latent Class Approach—**❖Cecile Proust-Lima, University of Michigan**;** Helene Jacqmin-Gadda, INSERM, U875**;** Jeremy Taylor, University of Michigan

105 CC-155 B

● Statistical Issues in Oncology Trials—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Dennis Cosmatos, Wyeth

8:35 a.m. **Modified Simon's Two-Stage Design with a Control Group—**❖Sunil K. Dhar, New Jersey Institute of Technology**;** Farid Kianifard, Novartis Pharmaceuticals**;** Michael Chen, TCM Groups, Inc.

8:50 a.m. **Censored Data Within Phase III Oncology Studies Using Independent Radiology Review (IRC) Assessments—**❖Pralay Mukhopadhyay, Bristol-Myers Squibb Company**;** Thomas Kelleher, Bristol-Myers Squibb Company

9:05 a.m. **Estimate of Treatment Effect with Adjustment for Post-Discontinuation Treatment Resumption and Crossover and Other Therapies in Oncology Clinical Trials—**❖Shengyan Hong, Eli Lilly and Company**;** Yanping Wang, Eli Lilly and Company

9:20 a.m. **A Two-Stage Multinomial Randomized Selection Design in Phase II Oncology Trials—**❖Zhiping Sun, Merck & Co., Inc.

9:35 a.m. **An Adaptive Two-Stage Design for Active-Controlled Phase II Oncology Trial—**❖Xiaoming Li, sanofi-aventis

9:50 a.m. **Optimal Three-Outcome Designs for Screening Trials of New Agents—**❖Vandana Mukhi, New York University**;** Yongzhao Shao, New York University

10:05 a.m. **A Hybrid of Traditional Design and Isotonic Regression Method To Find MTD in Phase I Cancer Clinical Trials—**❖Robert Bigelow, sanofi-aventis**;** Chunpeng Fan, University of Wisconsin-Madison**;** Richard Wu, sanofi-aventis**;** Hui Quan, sanofi-aventis

106 CC-355 B

● Mixed Effect Models and Missing Data—Contributed

ENAR, Biometrics Section

Chair(s): Matthew Gurka, University of Virginia

8:35 a.m. **A Pattern Mixture Model To Analyze Longitudinal Quality-of-Life Data with Nonignorable Dropout—**❖Qinfang Xiang, Endo Pharmaceuticals**;** Suna Barlas, Endo Pharmaceuticals

8:50 a.m. **Likelihood Ratio Hypothesis Testing in the Presence of Incomplete Data—**❖Sergey Tarima, Medical College of Wisconsin**;** Albert Vexler, National Institutes of Health

9:05 a.m. **Principal Component Analysis for Multivariate Binary Data—**❖Seokho Lee, Texas A&M University

9:20 a.m. **Overdispersion in Multilevel Correlated Data—**❖Trent Lalonde, Arizona State University**;** Jeffrey R. Wilson, Arizona State University

9:35 a.m. **Multiple Imputation Based on Functional Principal Components Analysis for Sparse Longitudinal Data—**❖Szu-Ching Tseng, University of California, Davis**;** Xiaowei Yang, University of California, Davis**;** Hao Zhang, University of California, Davis

9:50 a.m. **The Inclusion of Covariate Information in a Random Effects Agreement Model—**❖Kerrie Nelson, University of South Carolina**;** Don Edwards, University of South Carolina

10:05 a.m. **Maximum Likelihood Methods for Nonignorable Missing Data—**❖Yan Zhou, University of Michigan**;** Roderick J. Little, University of Michigan**;** John D. Kalbfleisch, University of Michigan

107 CC-255 D

✪ Random Matrix Theory and High-Dimensional Inference—Contributed

IMS, Biometrics Section

Chair(s): Lisha Chen, Yale University

8:35 a.m. **Effect of Mean on Variance Function Estimation in Nonparametric Regression—**❖Lie Wang, University of Pennsylvania**;** Lawrence D. Brown, University of Pennsylvania**;** Tony Cai, University of Pennsylvania**;** Michael Levine, Purdue University

8:50 a.m. **The Largest Root Test in Multivariate Analysis: Nonasymptotic Accuracy of the Tracy-Widom Approximation—**❖Iain Johnstone, Stanford University

9:05 a.m. **Statistical Eigen-Inference from Large Wishart Matrices—**❖Raj Rao, Massachusetts Institute of Technology

9:20 a.m. **New Optimality Test for Branch-and-Bound–Based Comprehensive Subset Search—**❖Xuelei Ni, Kennesaw State University**;** Xiaoming Huo, Georgia Institute of Technology

9:35 a.m. **High-Dimensional Classification Using Features Annealed Independence Rule—**❖Yingying Fan, Princeton University**;** Jianqing Fan, Princeton University

9:50 a.m. **On the Minimax Risks for Estimation of a Location Parameter from Sums—**❖Mokshay Madiman, Yale University**;** Andrew Barron, Yale University**;** Abram Kagan, University of Maryland**;** Tinghui Yu, University of Maryland

10:05 a.m. **Floor Discussion**

108 CC-259

✪ Nonparametric Statistics and Mixture Models—Contributed

IMS, Section on Nonparametric Statistics

Chair(s): Zepu Zhang, The University of Chicago

8:35 a.m. **Set and Set Properties Estimation—**❖Bruno Pelletier, University Montpellier II**;** Gerard Biau, University Montpellier II**;** Benoit Cadre, University Montpellier II

8:50 a.m. **Distribution Theory of Order Statistics of Concomitants Subsets and Applications—**❖Ke Wang, The Ohio State University**;** Haikady Nagaraja, The Ohio State University

9:05 a.m. **Differentiated Logdensity Approximants—**❖Serge Provost, The University of Western Ontario

9:20 a.m. **On a Grouping Method for Constructing Mixed Orthogonal Arrays—**❖Chung-yi Suen, Cleveland State University

9:35 a.m. **Labeling Issue in Finite Mixture Model: A Frequentist View—**❖Daeyoung Kim, The Pennsylvania State University**;** Bruce G. Lindsay, The Pennsylvania State University

9:50 a.m. **Using Copula To Study Dependence in Mixed Distributions—**❖Magdalena Niewiadomska-Bugaj, Western Michigan University

10:05 a.m. **Floor Discussion**

109 CC-254 B

● ✪ Bayesian Case Studies—Contributed

Section on Bayesian Statistical Science

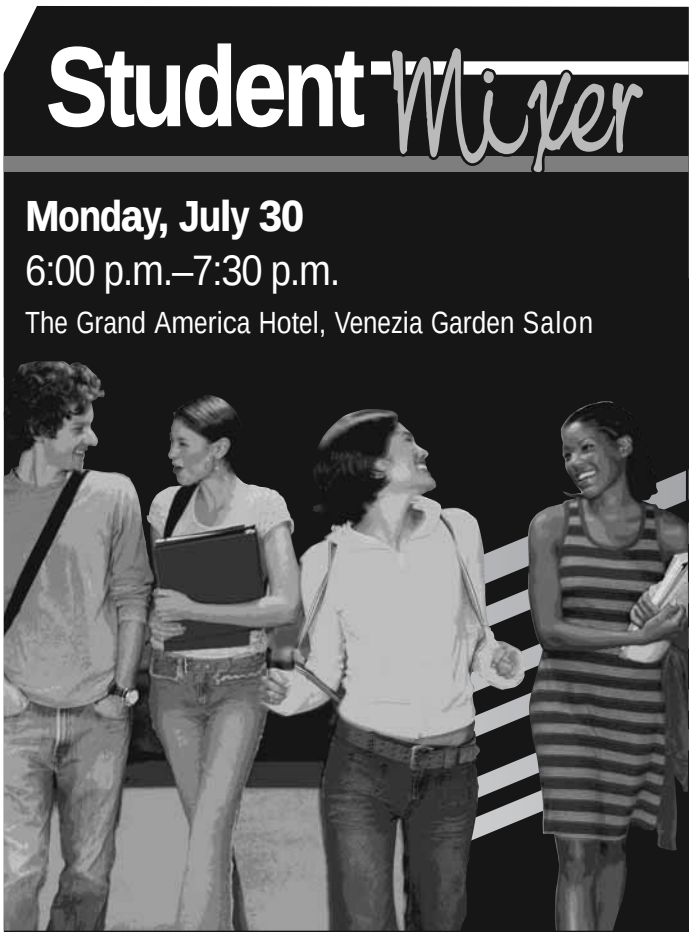
Chair(s): Peng Sun, Merck & Co., Inc.

8:35 a.m. **Bayesian Real-Time Model for Ovulation Prediction—**❖Lemuel Moye, University of Texas School of Public Health

8:50 a.m. **Bayesian Multiple Outcomes Models: Benefits and Challenges—**❖Sally W. Thurston, University of Rochester**;** David Ruppert, Cornell University

9:05 a.m. **Analyzing Pressure Ulcer Development of 36 Nursing Homes Using Bayesian Hierarchical Modeling—**❖Jing Zhang, University of Missouri-Columbia**;** Zhuoqiong (Chong) He, University of Missouri-Columbia

9:20 a.m. **Application of Bayesian Analysis in Review of Adverse Event for Product Quality Issues—**❖Harry Yang, MedImmune, Inc.**;** Lanju Zhang, MedImmune, Inc.**;** Iksung Cho, MedImmune, Inc.



9:35 a.m. **Bayesian Analysis of Surveillance Data and Meteorological Data for Detection of Aerosol Releases of B. Anthracis Spores**—❖William Hogan, University of Pittsburgh; Garrick Wallstrom, University of Pittsburgh; Gregory F. Cooper, University of Pittsburgh; Michael Wagner, University of Pittsburgh; Jean-Marc Depinay, University of Pittsburgh

9:50 a.m. **Hierarchical Bayesian Markov Switching Models with Application to Predicting Spawning Success of Shovelnose Sturgeon**—❖Ginger Davis, University of Virginia; Scott Holan, University of Missouri-Columbia; Mark Wildhaber, U.S. Geological Survey

10:05 a.m. **Floor Discussion**

110 CC-251 F
Nonparametric Testing and Model Validation—Contributed

Section on Nonparametric Statistics

Chair(s): Jeffrey Hart, Texas A&M University

8:35 a.m. **A Generalized Test Statistic for Multinomial Goodness-of-Fit**—❖Sunil Mathur, University of Mississippi

8:50 a.m. **Model-Checking in Errors-in-Variables Regression**—❖Weixing Song, Kansas State University

9:05 a.m. **A Lack-of-Fit Test for Partially Linear Models**—❖Chin-Shang Li, St. Jude Children's Research Hospital

9:20 a.m. **Robust and Powerful Two-Sample Semiparametric Tests**—❖Zhong Guan, Indiana University South Bend; Hongyu Zhao, Yale University

9:35 a.m. **A Modified Mood's Rank Test for Comparing Two Crossing Distributions**—❖Michael P. Anderson, Kansas State University

9:50 a.m. **Goodness-of-Fit Tests for Multinomial Logistic Regression**—❖David Hosmer, University of Massachusetts Amherst; Morten W. Fagerland, Ullevål University Hospital; Anna M. Bofin, Norwegian University of Science and Technology

10:05 a.m. **Model Credibility Indices and Information Criteria**—❖Jiawei Liu, Georgia State University; Bruce G. Lindsay, The Pennsylvania State University

111 CC-251 C
Symbolic, Time Series, and Image Analysis I—Contributed

Section on Statistical Computing, Section on Statistical Graphics, IMS

Chair(s): Lynne Billard, University of Georgia

8:35 a.m. **Exact Properties of a New Test and Other Tests**—❖Jie Peng, University of Louisiana at Lafayette; Kalimuthu Krishnamoorthy, University of Louisiana at Lafayette

8:50 a.m. **On a Moment-Based Test for Normality**—❖Yihao Deng, Indiana University Purdue University Fort Wayne; Chand Chauhan, Indiana University Purdue University Fort Wayne

9:05 a.m. **Testing of Hypothesis of a Structured Mean Vector for Multilevel Multivariate Data with Structured Correlations on Repeated Measurements**—❖Anuradha Roy, The University of Texas at San Antonio; Ricardo Leiva, F.C.E. Universidad Nacional de Cuyo

9:20 a.m. **Resampling-Based Multiple Testing Procedure**—❖Nasrine Bendjilali, Lehigh University; Wei-Min Huang, Lehigh University

9:35 a.m. **On an Efficient Algorithm for Boundary Detection**—❖Tsung-Lin Cheng, National Changhua University of Education

9:50 a.m. **A Geometric Feasible Direction Algorithm for Large-Scale Optimization with l1 Norm Constraint**—❖Jian Zhang, Purdue University

10:05 a.m. **Impact of Censoring on Inference for the Regression Coefficient in a Bivariate Normal Model**—❖Richard Linder, Ohio Wesleyan University

112 CC-257
Spatial Methodology—Contributed

Section on Statistics and the Environment

Chair(s): Ernst Linder, University of New Hampshire

8:35 a.m. **On the Number of Clusters in a Dataset**—❖Ahmed Albatineh, Nova Southeastern University

8:50 a.m. **Assessing Statistical Spatial Performance: An Application in Archaeology**—❖Yuemei Wang, Emory University; Lance Waller, Emory University; Zev Ross, ZevRoss Spatial Analysis

9:05 a.m. **Mining Semantic Co-Location Patterns with Clustering Techniques**—❖Bin Zhang, IBM China Research Laboratory; Wen Jun Yin, IBM China Research Laboratory; Jin Dong, IBM China Research Laboratory; Ming Xie, IBM China Research Laboratory

9:20 a.m. **Spatial Modeling for Large Multivariate Environmental Data: Advancing Methods and Applications**—❖Sudipto Banerjee, The University of Minnesota; Andrew Finley, The University of Minnesota

9:35 a.m. **A Multivariate Semiparametric Bayesian Spatial Modeling Framework for Hurricane Surface Wind Fields—**❖Brian Reich, North Carolina State University**;** Montserrat Fuentes, North Carolina State University

9:50 a.m. **Maximum Likelihood for Spatially Correlated Discrete Data—**❖Lisa Madsen, Oregon State University

10:05 a.m. **Edge Correction for Exact Tests on Nearest-Neighbor Contingency Tables for Testing Spatial Segregation—**❖Elvan Ceyhan, Koc University

113 CC-355 A

● Methods for and Analyses of Disease Surveillance Data—Contributed

Section on Statistics in Epidemiology, Section on Health Policy Statistics

Chair(s): Kiros Berhane, University of Southern California

8:35 a.m. **Power Study of a Semiparametric Cluster Detection Method—**❖Shihua Wen, University of Maryland**;** Benjamin Kedem, University of Maryland

8:50 a.m. **The Relationship Between the Recurrence Interval and Time-to-Signal Properties of Surveillance Schemes—**❖Shannon Fraker, Virginia Polytechnic Institute and State University**;** William H. Woodall, Virginia Polytechnic Institute and State University**;** Shabnam Mousavi, The Pennsylvania State University

9:05 a.m. **Using Administrative Data To Improve Sample Design and Estimation: Assaults Requiring Emergency Department Visits in New York City—**❖Kevin Konty, New York City Department of Health and Mental Hygiene**;** Catherine Stayton, New York City Department of Health and Mental Hygiene**;** Jingsong Lu, New York City Department of Health and Mental Hygiene

9:20 a.m. **Peak-Detection in Online Influenza Monitoring—**❖Eva Andersson, Göteborg University**;** Marianne Frisén, Göteborg University**;** David Bock, Astra Zeneca

9:35 a.m. **Variability of Serfling's Estimator for Excess Mortality—**❖Al Ozonoff, Boston University**;** Xiaopeng Miao, Boston College

9:50 a.m. **A Robust Regression Model for Estimating Influenza-Associated Deaths in 122 Cities' Mortality Data—**❖Po-Yung Cheng, Centers for Disease Control and Prevention**;** William W. Thompson, Centers for Disease Control and Prevention**;** David K. Shay, Centers for Disease Control and Prevention

10:05 a.m. **Evaluation of Multiple Imputation in a Vaccine Immunogenicity Trial—**❖Elizabeth Zell, Centers for Disease Control and Prevention**;** Michela Baccini, University of Florence**;** Constantine E. Frangakis, The 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

114 CC-250 A

● ✪ Advances in Latent Class and Multivariate Modeling of Survey Data—Contributed

Section on Survey Research Methods, Section on Statistics and Marketing

Chair(s): Keith Rust, Westat

8:35 a.m. **Structural Equation Models for Item Parceling—**❖Joseph Olsen, Brigham Young University

8:50 a.m. **Using Factor Analysis and Cronbach's Alpha To Ascertain Relationships Between Questions of a Dietary Behavior Questionnaire—**❖Eric Grau, Mathematica Policy Research, Inc.

9:05 a.m. **Randomization-Based Inference About Latent Variables in Classical Test Theory for a Clustered Sample—**❖Tiandong Li, Westat**;** Robert Mislevy, University of Maryland

9:20 a.m. **Hierarchical Linear Modeling for Complex Survey Data with Unequal Probability of Selection Using HLM 6—**❖Frank Jenkins, Westat**;** Hyunshik Lee, Westat**;** Pam Broene, Westat

9:35 a.m. **A Methodology to Fit Hierarchical Logistic Models for Data from Complex Sampling Designs—**❖Prabhu Bhagavatheeswaran, Bristol-Myers Squibb Company**;** Ian Harris, Southern Methodist University

9:50 a.m. **Post-Stratification with Optimized Effective Base: Linear and Nonlinear Ridge Regression Approach—**❖Stan Lipovetsky, GfK Custom Research North America

10:05 a.m. **Robustness of Latent Class Measurement Error Models—**❖Brian Meekins, Bureau of Labor Statistics**;** Daniell Toth, Bureau of Labor Statistics

115 CC-250 B

● Nonresponse and Attrition Bias in Survey Data—Contributed

Section on Survey Research Methods

Chair(s): Virginia Lesser, Oregon State University

8:35 a.m. **An Analysis of Nonresponse Bias Resulting from Nonresolution of Telephone Numbers, Eligibility Screener Nonresponse, and Interview Nonresponse for the National Immunization Survey—**❖Benjamin Skalland, NORC at the University of Chicago; Robert Montgomery, NORC at the University of Chicago; Phillip Smith, Centers for Disease Control and Prevention

8:50 a.m. **Assessing the Effect of Government Frame Refinement on Collecting Establishment Data for the National Compensation Survey—**❖Glenn Springer, Bureau of Labor Statistics

9:05 a.m. **A Comparison of Level of Effort and Benchmarking Approaches for Nonresponse Bias Analysis of an RDD Survey—**❖Daifeng Han, Westat; David Cantor, Westat

9:20 a.m. **The Impact of Refusal Conversion on Survey Response and Error—**❖Martin Barron, NORC at the University of Chicago; Karen Wooten, Centers for Disease Control and Prevention

9:35 a.m. **Designing Longitudinal Studies of Mobile Populations Such as Military Populations—**❖Shelton Jones, RTI International; Jeniffer Iriondo-Perez, RTI International; Cynthia Bland, RTI International; Robert Bray, RTI International; Janice Brown, RTI International; Michael Pemberton, RTI International

9:50 a.m. **Floor Discussion**

116 CC-251 B

● ✪ Estimating Mortality and Migration—Contributed

Social Statistics Section

Chair(s): Dawn V. Nelson, U.S. Census Bureau

8:35 a.m. **Scepticism About The Lancet Surveys on Iraqi Mortality—**❖David Kane, Kane Capital Management

8:50 a.m. **Estimating Conflict-Related Mortality in Timor-Leste, 1974-1999: A Comparative Review of Demographic and Statistical Estimation Methods—**❖Romesh Silva, Human Rights Data Analysis Group; Patrick Ball, The Benetech Initiative

9:05 a.m. **Life Table Forecasting with the Gompertz Distribution—**❖Peter Pflaumer, FH Kempten

9:20 a.m. **Methods of Estimating Internal Migration in the Undocumented Immigrant Population of the United States—**❖Christopher J. Campbell, U.S. Department of Homeland Security; Michael D. Hoefer, U.S. Department of Homeland Security; Nancy F. Rytina, U.S. Department of Homeland Security

9:35 a.m. **An Integrated Approach to Address Immigration Data Quality Problems: Sampling and Archival Research—**❖MacReadie Barr, U.S. Department of Homeland Security

9:50 a.m. **Status Upgrading: Immigrant Naturalization and Occupational Change Revisited—**❖Derekh Cornwell, Office of Immigration Statistics; Nancy F. Rytina, U.S. Department of Homeland Security; Gary Huang, Office of Immigration Statistics

10:05 a.m. **Internal Migration of Refugee Adjustments of Status: An Application of Logistic Modeling—**❖Kelly Jefferys, U.S. Department of Homeland Security

Invited Sessions 10:30 a.m.–12:20 p.m.

117 CC-355 F

● ✪ Advanced Modeling and Imaging Endpoints in Applied Oncology Statistics—Invited

Committee on Applied Statisticians, ENAR, Section on Statistics in Epidemiology, Biometrics Section, Biopharmaceutical Section

Organizer(s): Kelly H. Zou, Harvard Medical School

Chair(s): Mani Y. Lakshminarayanan, Pfizer, Inc.

10:35 a.m. **Absolute Risk Models: Applications and Validation—** ❖Mitchell H. Gail, National Cancer Institute

11:00 a.m. **Imaging as Biomarker in Clinical Trials—** ❖Constantine Gatsonis, Brown University

11:25 a.m. **Some Statistical Issues with DCE-MRI Reproducibility Studies in Oncology—**❖William L. Mietlowski, Novartis Pharmaceuticals**;** Yuhui Ma, University of Medicine and Dentistry of New Jersey**;** Theodore C. Pellas, Novartis Pharmaceuticals**;** Ching-Ray Yu, Rutgers University

11:50 a.m. Disc: Elizabeth B. Claus, Yale University

12:10 p.m. **Floor Discussion**

118 CC-255 D

● ✪ Recent Advances In Functional Data Analysis And Nonparametric Estimation —Invited

Section on Physical and Engineering Sciences, Biometrics Section, Section on Nonparametric Statistics, Section on Statisticians in Defense and National Security

Organizer(s): Yuedong Wang, University of California, Santa Barbara

Chair(s): Yuedong Wang, University of California, Santa Barbara

10:35 a.m. **A Multiresolution Approach to Time and Image Warping—**❖Bernard W. Silverman, St. Peter's College

11:05 a.m. **Penalized Splines: Asymptotics with Increasing Number of Knots and Equivalent Kernels—**❖David Ruppert, Cornell University**;** Yingxing Li, Cornell University

11:35 a.m. **Bayesian Curve-Fitting and Functional Data Analysis in Neurophysiology—**❖Robert E. Kass, Carnegie Mellon University

12:05 p.m. **Floor Discussion**

119 CC-155 B

● ✪ Collection and Assessment of Safety Data in a New Drug Development Program—Invited

Biopharmaceutical Section, Committee on Applied Statisticians, ENAR, Section on Risk Analysis, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Guowen (Gordon) Sun, sanofi-aventis; Hui Quan, sanofi-aventis

Chair(s): Guowen (Gordon) Sun, sanofi-aventis

10:35 a.m. **A Triage Approach to Evaluating Safety Incorporating Frequentist and Bayesian Methods—** ❖A. Lawrence Gould, Merck & Co., Inc.

11:00 a.m. **Assessment of Safety Data in a New Drug Development Program: Some Points to Consider—** ❖Weichung J. Shih, University of Medicine and Dentistry of New Jersey**;** Hui Quan, sanofi-aventis

11:25 a.m. **Safety First: Managing Patients' Safety and Mitigating Products' Risks—**❖Christy Chuang-Stein, Pfizer Inc.

11:50 a.m. Disc: Judith D. Goldberg, New York University

12:10 p.m. **Floor Discussion**

120 CC-255 C

● Statistics in Genomics and Proteomics—Invited

Biometrics Section, WNAR, Biopharmaceutical Section

Organizer(s): Huixia Wang, North Carolina State University

Chair(s): Huixia Wang, North Carolina State University

10:35 a.m. **A Method for the Detection of Alternative Splicing from Exon Array Data—**❖Terence Speed, University of California, Berkeley

11:00 a.m. **Statistical Analysis of Histone Acetylation—**❖Ping Ma, University of Illinois

11:25 a.m. **Quantifying Protein: Reverse-Phase Protein Arrays—**❖Keith Baggerly, The University of Texas M. D. Anderson Cancer Center

11:50 a.m. **Statistical Design of Microarrays and Multiple Testing of Gene Expression Data—**❖Jason C. Hsu, The Ohio State University

12:15 p.m. **Floor Discussion**

121 CC-257
Optimal Transformations —Invited
IMS, General Methodology

Organizer(s): Anirban Dasgupta, Purdue University

Chair(s): Anirban Dasgupta, Purdue University

10:35 a.m. **A Mean-Matching, Variance-Stabilizing Transform Approach to Nonparametric Regression in Exponential Families—**❖Tony Cai, University of Pennsylvania

11:05 a.m. **On Optimal Smoothing Parameter Choice in Deconvolution Problems—**Peter Hall, The University of Melbourne**;** ❖Aurore Delaigle, University of Bristol

11:35 a.m. Disc: Lawrence D. Brown, University of Pennsylvania

11:55 a.m. **Floor Discussion**

122 CC-255 E
Medallion Lecture II—Invited
IMS, General Methodology

Organizer(s): Tony Cai, University of Pennsylvania

Chair(s): Shane T. Jensen, University of Pennsylvania

10:35 a.m. **Understanding Ecological Communities—** ❖Claudia Neuhauser, The University of Minnesota

12:00 p.m. **Floor Discussion**

123 CC-Ballroom B
Remembering Frederick Mosteller: 1916–2006—Invited
Memorial, Section on Statistical Education, Section on Teaching Statistics in the Health Sciences

Organizer(s): Stephen Fienberg, Carnegie Mellon University

Chair(s): Stephen Fienberg, Carnegie Mellon University

10:35 a.m. **Frederick Mosteller: A Statistical Life—**❖Stephen Fienberg, Carnegie Mellon University

11:05 a.m. **Fred Mosteller as Researcher—**❖David C. Hoaglin, Abt Associates, Inc.

11:35 a.m. **Fred as Educator—**❖Judith M. Tanur, SUNY Stoney Brook

12:05 p.m. **Floor Discussion**

124 CC-250 EF
Recent Developments in Bayesian Methods in Data Mining/Machine Learning—Invited
Section on Bayesian Statistical Science

Organizer(s): David Madigan, Rutgers University

Chair(s): David Madigan, Rutgers University

10:35 a.m. **Stochastic Block Models of Mixed Membership—** ❖Edoardo M. Airoldi, Princeton University**;** David Blei, Princeton University**;** Stephen Fienberg, Carnegie Mellon University**;** Eric Xing, Carnegie Mellon University

11:05 a.m. **Simultaneous Regression Shrinkage, Variable Selection, and Supervised Clustering—**❖Howard D. Bondell, North Carolina State University

11:35 a.m. **The Lasso with Attribute Partition Search—** ❖Suhrid Balakrishnan, Rutgers University**;** David Madigan, Rutgers University

12:05 p.m. **Floor Discussion**

125 CC-355 B
● ✪ A Sampling Revolution? List versus Area Frames for Probability Sampling—Invited
Section on Survey Research Methods

Organizer(s): Colm O'Muircheartaigh, NORC at the University of Chicago

Chair(s): Martin Frankel, Baruch College/CUNY

10:35 a.m. **Predicting the Relative Quality of Alternative Sampling Frames—**❖Colm O'Muircheartaigh, NORC at the University of Chicago**;** Edward English, NORC at the University of Chicago**;** Stephanie Eckman, NORC at the University of Chicago

11:00 a.m. **Improving Coverage of Residential Address Lists in Multistage Area Samples—**❖Sylvia Dohrmann, Westat**;** Daifeng Han, Westat**;** Leyla Mohadjer, Westat

11:25 a.m. **Comparing the Coverage of a Household Sampling Frame Based on Mailing Addresses to a Frame Based on Field Enumeration—**❖Vincent G. Iannacchione, RTI International**;** Joseph McMichael, RTI International**;** James R. Chromy, RTI International**;** David Cunningham, RTI International**;** Katherine Morton, RTI International**;** James Cajka, RTI International**;** Ross Curry, RTI International

11:50 p.m. **Floor Discussion**

126 CC-258

● ✪ Multiplicity Today: Perspectives on Multiple Testing—Invited

General Methodology, Section on Statistics in Epidemiology, WNAR

Organizer(s): Thomas H. Short, Indiana University of Pennsylvania

Chair(s): Thomas H. Short, Indiana University of Pennsylvania

10:35 a.m. **Political Aspects of Multiple Testing: A Controversy—**❖S. Stanley Young, National Institute of Statistical Sciences

11:00 a.m. **Empirical Bayes Methods for Multiple Testing—**❖Debashis Ghosh, University of Michigan

11:25 a.m. **Hochberg's Step-Up Method: Cutting Corners off Holm's Step-Down Method—**❖Yifan Huang, University of South Florida; Jason C. Hsu, The Ohio State University

11:50 a.m. **Multiple Tests of Association with Biological Annotation Metadata—**❖Sunduz Keles, University of Wisconsin-Madison; Sandrine Dudoit, University of California, Berkeley; Mark J. van der Laan, University of California, Berkeley

12:15 p.m. **Floor Discussion**

127 CC-260

● ✪ Spatial Surveillance for Adverse Environmental Health Outcomes—Invited

Section on Statistics and the Environment, Section on Bayesian Statistical Science, Section on Statisticians in Defense and National Security, ENAR, Section on Health Policy Statistics, Biometrics Section

Organizer(s): Andrew B. Lawson, University of South Carolina

Chair(s): Andrew B. Lawson, University of South Carolina

10:35 a.m. **Optimal Methods in Surveillance—**❖Marianne Frisén, Göteborg University

11:05 a.m. **Bayesian Modeling and Surveillance for Adverse MRDD Outcomes Associated with Soil Chemical Exposures—**❖Ji-In Kim, University of South Carolina; Andrew B. Lawson, University of South Carolina

11:35 a.m. **Assessing Spatial Performance of Surveillance Systems—**❖Lance Waller, Emory University; Yuemei Wang, Emory University; Carol Lin, Bristol-Myers Squibb Company

12:05 p.m. **Floor Discussion**

128 CC-355 E

JASA, Theory and Methods Invited Session—Invited

JASA, Theory and Methods, General Methodology

Organizer(s): Stephen Portnoy, University of Illinois; Walter W. Piegorsch, The University of Arizona

Chair(s): Walter W. Piegorsch, The University of Arizona

10:35 a.m. **Implementation of Estimating-Function–Based Inference Procedures with MCMC Samplers—**❖Lee-Jen Wei, Harvard University; Lu Tian, Northwestern University; Jun S. Liu, Harvard University

11:20 a.m. Disc: Xuming He, University of Illinois

11:40 a.m. Disc: John D. Kalbfleisch, University of Michigan

12:00 p.m. Rejoiner: Lee-Jen Wei, Harvard University

12:10 p.m. **Floor Discussion**

Longtime Member Reception

by invitation only

Monday, July 30, 6:30 to 7:30 p.m.
The Grand America Hotel
Murano Garden Salon

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.

Invited Panels 10:30 a.m.–12:20 p.m.

129 CC-251 E

● ✪ SAMSI: A Five-Year Retrospective and Five-Year Prospective—Invited

Statistical and Applied Mathematical Sciences Institute

Organizer(s): James Berger, Duke University

Chair(s): James Berger, Duke University

Panelists:
- ❖ Peter Bickel, University of California, Berkeley
- ❖ Sallie Keller-McNulty, Rice University
- ❖ Alan Karr, National Institute of Statistical Sciences

12:05 p.m. **Floor Discussion**

130 CC-255 B

● Issues and Solutions to Planning and Implementing an Adaptive Design in Practice—Invited

ENAR, Biometrics Section, Biopharmaceutical Section, WNAR

Organizer(s): Brenda Gaydos, Eli Lilly and Company

Chair(s): Brenda Gaydos, Eli Lilly and Company

Panelists:
- ❖ Michael Krams, Wyeth
- ❖ Paul Gallo, Novartis Pharmaceuticals
- ❖ Gernot Wassmer, The University of Cologne
- ❖ Jerald S. Schindler, Merck & Co., Inc.
- ❖ Christopher S. Coffey, The University of Alabama at Birmingham

12:15 p.m. **Floor Discussion**

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

131 CC-355 C

● ✪ It's Only Data, What's the Big Deal?: The Significance of Using Multi-Year Estimates from the American Community Survey—Topic-Contributed

Social Statistics Section, Section on Survey Research Methods

Organizer(s): Cynthia J. Davis, U.S. Census Bureau

Chair(s): Constance F. Citro, National Academy of Sciences

10:35 a.m. **Multiple ACS Estimates: Pick a Number, Any Number!—**❖Linda Gage, California Department of Finance

10:55 a.m. **Multiyear ACS Results for Multnomah County, Oregon: Preliminary Observations—**❖George C. Hough, Portland State University**;** David A. Swanson, University of Mississippi

11:15 a.m. **The Utility of Five-Year Averages from the American Community Survey for Bronx Neighborhoods—**❖Joseph Salvo, NYC Department of City Planning**;** A. Peter Lobo, NYC Department of City Planning**;** Adam Willett, New York City Department of City Planning

11:35 a.m. Disc: Michael L. Cohen, Committee on National Statistics

11:55 a.m. Disc: Deborah H. Griffin, U.S. Census Bureau

12:15 p.m. **Floor Discussion**

132 CC-251 D

● ✪ Applications of Visualization for Web 2.0—Topic-Contributed

Section on Statistical Graphics

Organizer(s): Daniel Rope, SPSS Inc.

Chair(s): Simon Urbanek, AT&T Labs - Research

10:35 a.m. **An AJAX Web 2.0 Geospatial Visualization Framework—**❖Stephen Eick, University of Illinois at Chicago

10:55 a.m. **Statistical Graphics with Element Control in the Browser—**❖Sven Knudsen, Insightful Corporation**;** Michael O'Connell, Insightful Corporation

11:15 a.m. **Using Web 2.0 for Statistical Software—**❖Webster West, Texas A&M University

11:35 a.m. **Statistical Graphics for Collaborative Environments—**❖Daniel Rope, SPSS Inc.

12:15 p.m. **Floor Discussion**

133 CC-155 C

● ✪ When To Stop a Clinical Trial for Efficacy?—Topic-Contributed

Biopharmaceutical Section, ENAR, WNAR

Organizer(s): Vipin Arora, Novartis Pharmaceuticals

Chair(s): John Connett, The University of Minnesota

10:35 a.m. **When To Stop a Clinical Trial for Efficacy?—**❖Vipin Arora, Novartis Pharmaceuticals

10:55 a.m. **Overview of Available Methods for Efficacy Monitoring—**❖Thomas Cook, University of Wisconsin-Madison

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Lundi 30 juillet, 17-19 h

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11:15 a.m. **Crossing Monitoring Boundaries and Not Stopping—**❖Janet Wittes, Statistics Collaborative

11:35 a.m. Disc: Marian Fisher, University of Wisconsin-Madison

11:55 a.m. Disc: Kannan Natarajan, Novartis Pharmaceuticals

12:15 p.m. **Floor Discussion**

134 CC-155 A

● ✪ Statistical Challenges for Bioassay Data—Topic-Contributed

Biopharmaceutical Section, WNAR

Organizer(s): Jason Liao, Merck & Co., Inc.

Chair(s): Rong Liu, Merck & Co., Inc.

10:35 a.m. **Prediction-Based Decision for Validation of (Bio)Analytical Methods Using Tolerance Intervals and Accuracy Profiles—**❖Bruno Boulanger, Université de Liège**;** Walthère Dewe, GlaxoSmithKline**;** Francois Moonen, Arlenda**;** Philippe Hubert, University of Liege

10:55 a.m. **Statistical Methods for Assessing Long-Term Stability of Compounds in Biological Matrices—**❖David M. Hoffman, sanofi-aventis**;** Robert Kringle, sanofi-aventis

11:15 a.m. **Bioassay: Decisionmaking in the Face of Uncertainty—**❖Timothy Schofield, Merck & Co., Inc.

11:35 a.m. **Reparameterization of the Five-Parameter Logistic Dose-Response Curve—**❖Jason Liao, Merck & Co., Inc.**;** Rong Liu, Merck & Co., Inc.

11:55 a.m. **Overcoming Practical, Statistical, and Robotic Challenges in Bioassay—**❖David Lansky, Precision Bioassay

12:15 p.m. **Floor Discussion**

135 CC-251 C

● Innovative Methods for Analyzing Observational Studies and Clinical Studies—Topic-Contributed

IMS, Section on Statistics in Epidemiology, ENAR

Organizer(s): Dylan Small, University of Pennsylvania

Chair(s): Dylan Small, University of Pennsylvania

10:35 a.m. **Robust Propensity Score Analysis for Causal Inference in Observational Studies—**❖Asheber Abebe, Auburn University**;** Joseph W. McKean, Western Michigan University**;** Bradley E. Huitema, Western Michigan University

10:55 a.m. **Propensity Score Analysis with Hierarchical Data—**❖Fan Li, Harvard Medical School**;** Alan M. Zaslavsky, Harvard University**;** Mary Beth Landrum, Harvard Medical School

11:15 a.m. **Bayesian Hidden Markov Models for Alcoholism Data—**❖Kenneth Shirley, University of Pennsylvania**;** Dylan Small, University of Pennsylvania**;** Kevin G. Lynch, University of Pennsylvania

11:35 a.m. **Laplace's Approximation for Relative Risk Frailty Models—**❖Shibao Feng, Genentech, Inc.**;** Lei Nie, Georgetown University Medical Center**;** Robert A. Wolfe, University Renal Research and Education Association

11:55 a.m. **Dental Arch Clustering in Orthodontics Practice—**❖Johan Lim, Yonsei University**;** Heon Jin Park, Inha University**;** SungIm Lee, DanKook University**;** Shin-Je Lee, Seoul National University

12:15 p.m. **Floor Discussion**

136 CC-254 A

✪ Statistics of Extremes—Topic-Contributed

IMS

Organizer(s): Zhengjun Zhang, University of Wisconsin-Madison

Chair(s): Richard A. Davis, Colorado State University

10:35 a.m. **Large Deviations for Point Processes Based on Stationary Sequences with Heavy Tails—**❖Henrik Hult, Brown University

10:55 a.m. **Inference of a Heavy-Tailed Distribution—**❖Yongcheng Qi, The University of Minnesota Duluth

11:15 a.m. **Maximum Likelihood Estimation for Alpha-Stable Autoregressive Processes—**❖Beth Andrews, Northwestern University**;** Matthew Calder, Colorado State University**;** Richard A. Davis, Colorado State University

11:35 a.m. **On the Estimation of the Heavy-Tail Exponent in Time Series Using the Max-Spectrum—**❖Stilian Stoev, University of Michigan**;** George Michailidis, The University of Michigan

11:55 a.m. **Quotient Correlation: A Sample-Based Alternative to Pearson's Correlation—**❖Zhengjun Zhang, University of Wisconsin-Madison

12:05 p.m. **Floor Discussion**

137 CC-250 C

● ✪ Applications of Objective Bayesian Analysis—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Jun Lu, American University

Chair(s): Jingqin Luo, Washington University in St. Louis

10:35 a.m. **Estimate Response Rates and Satisfaction Given Response Jointly Using Hierarchical Bayesian Modeling Approach—**❖Xiaoming Gao, Missouri Department of Conservation**;** Dongchu Sun, University of Missouri-Columbia**;** Zhuoqiong (Chong) He, University of Missouri-Columbia

10:55 a.m. **Objective Priors for Overdisposed Weibull Models for Breast Cancer Incidence and Survivals—**❖Luyan Dai, University of Missouri-Columbia**;** Zhuoqiong (Chong) He, University of Missouri-Columbia**;** Dongchu Sun, University of Missouri-Columbia**;** Mario Schootman, Washington University in St. Louis

11:15 a.m. **Objective Priors for Spatially Adaptive Smoothing Splines—**❖Yu Yue, University of Missouri-Columbia

11:35 a.m. **Objective Bayesian Analysis in Memory Study—**❖Xiaoyan Lin, University of Missouri-Columbia**;** Dongchu Sun, University of Missouri-Columbia

11:55 a.m. Disc: Jun Lu, American University

12:15 p.m. **Floor Discussion**

138 CC-250 D

● ✪ Section on Bayesian Statistics Student Paper Competition: Applications in Biostatistics—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Merlise A. Clyde, Duke University

Chair(s): Jing Li, The University of Michigan

10:35 a.m. **Multivariate Spatial-Temporal Modeling and Prediction of Speciated Fine Particles—**❖Jungsoon Choi, North Carolina State University**;** Montserrat Fuentes, North Carolina State University**;** Brian Reich, North Carolina State University**;** Jerry Davis, North Carolina State University

10:55 a.m. **Bayesian Variable Selection with Joint Modeling of Categorical and Survival Outcomes: An Application to Individualizing Chemotherapy Treatment in Advanced Colorectal Cancer—**❖Wei Chen, Karmanos Cancer Institute

11:15 a.m. **Expert Opinion, Informative Priors, and Sensitivity Analysis for Longitudinal Binary Data with Informative Dropout—**❖Joo Yeon Lee, U.S. Food and Drug Administration**;** Joseph W. Hogan, Brown University

11:35 a.m. **A Semiparametric Joint Modeling Approach for Nonignorable Missing Data—**❖Liansheng Zhu, Pharmaceutical Product Development, Inc**;** Sujit Ghosh, North Carolina State University

11:55 a.m. **Floor Discussion**

139 CC-251 B

● ✪ Nonparametric Curve Estimation—Topic-Contributed

Section on Nonparametric Statistics

Organizer(s): Sam Efromovich, University of Texas at Dallas

Chair(s): Robert Serfling, University of Texas at Dallas

10:35 a.m. **A New Bayesian Procedure for Nonparametric Regression Estimation and Pointwise Confidence Bands—**❖Linda Zhao, University of Pennsylvania

10:55 a.m. **Consistent Learning Methods Are Approximately Local—**❖Yaacov Ritov, The Hebrew University of Jerusalem**;** Alon Zakai, The Hebrew University of Jerusalem

11:15 a.m. **Remarks on Bandwidth Selection for Discrimination—**❖David W. Scott, Rice University

11:35 a.m. **Estimating Common Mean Curve in Interlaboratory Studies—**❖Andrew Rukhin, University of Maryland

11:55 a.m. **Conditional Density Estimation—**❖Sam Efromovich, University of Texas at Dallas

12:15 p.m. **Floor Discussion**

140 CC-254 B

Statistical Literacy 2007—Topic-Contributed

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

Organizer(s): Milo Schield, Augsburg College

Chair(s): Paul Fields, Brigham Young University

10:35 a.m. **Statistics for Innumerate Journalists—**❖Stephen Doig, Arizona State University

10:55 a.m. **Quantitative Reasoning: An Activity-Based Course with Real Data and Relevant Issues—**❖Kay Somers, Moravian College

11:15 a.m. **Success of Relative Strength Investing Within Similar Asset Classes—**❖Marshall Schield, Stir Research**;** Milo Schield, Augsburg College

11:35 a.m. **Grammar of Chance—**❖Tom Burnham, Cognitive Consulting**;** Milo Schield, Augsburg College

11:55 a.m. **Media Stories Involving Numbers—**❖Milo Schield, Augsburg College

12:15 p.m. **Floor Discussion**

141 CC-254 C
Statistical Phylogenetics—Topic-Contributed

IMS

Organizer(s): Bret Larget, University of Wisconsin-Madison

Chair(s): Bret Larget, University of Wisconsin-Madison

10:35 a.m. **A Bayesian Model To Infer the Relationship Among Several Recombinant Sequences—**❖Erik Bloomquist, University of California, Los Angeles**;** Marc A. Suchard, University of California, Los Angeles

10:55 a.m. **Inference About Gorilla Population History Using MCMC Method—**❖Joungyoun Kim, University of Wisconsin-Madison

11:15 a.m. **Bayes Estimation of Hybridization in Species Phylogeny Based on Incongruent Gene Topologies—**❖Chen Meng, University of New Mexico

11:35 a.m. **Joint Bayesian Estimation of Phylogeny and Sequence Alignment—**❖Heejung Shim, University of Wisconsin-Madison

11:55 a.m. **Spatial Location-Dependent Substitution Models and Their Application to Phylogenetics—**❖Xueliang Pan, The Ohio State University**;** Dennis K. Pearl, The Ohio State University**;** J. Dennis Pollack, The Ohio State University

12:15 p.m. **Floor Discussion**

142 CC-255 A
● ✪ Theory and Applications of Gene Co-Expression Network Methods—Topic-Contributed

WNAR, ENAR, Biometrics Section

Organizer(s): Wei Zhao, University of California, Los Angeles

Chair(s): Christina Ramirez Kitchen, University of California, Los Angeles

10:35 a.m. **Microarray Gene Coexpression Analysis by a Supervised Sequential Clustering Algorithm—**❖Cheng Cheng, St. Jude Children's Research Hospital

10:55 a.m. **WGCNA: A Software for Weighted Gene Coexpression Network Analysis—**❖Lin Wang, University of California, Los Angeles

11:15 a.m. **Network-Based Meta Analysis Methods for Microarray Data—**❖Wen Lin, University of California, Los Angeles**;** Steve Horvath, University of California, Los Angeles

11:35 a.m. **Clustering Procedures for Finding Shared Modules Across Multiple Microarray Datasets—**❖Peter Langfelder, University of California, Los Angeles**;** Steve Horvath, University of California, Los Angeles

11:55 a.m. **Connectivity, Module-Conformity, and Significance: Understanding Weighted Gene Coexpression Networks—**❖Jun Dong, University of California, Los Angeles**;** Steve Horvath, University of California, Los Angeles**;** Andy Yip, National University of Singapore

12:15 a.m. **Floor Discussion**

Contributed Sessions 10:30 a.m.–12:20 p.m.

143 CC-255 F
● ✪ Recent Advances in Microarray Data Analysis I—Contributed

Biometrics Section

Chair(s): Baolin Wu, The University of Minnesota

10:35 a.m. **Exonerating Bonferroni's Multiple Testing Procedure—**❖Alexander Gordon, The University of North Carolina at Charlotte**;** Galina Glazko, University of Rochester**;** Xing Qiu, University of Rochester**;** Andrei Yakovlev, University of Rochester

10:50 a.m. **Statistical Framework for Integrative Analysis of Multiple Gene Expression—**❖Chien-Cheng Tseng, University of Pittsburgh

11:05 a.m. **A Method of Detecting Differential Gene Expression for Cross-Species Hybridization Experiments—**❖Ying Chen, University of California, Davis**;** Anu Chakicherla, Lawrence Livermore National Laboratory**;** David Rocke, University of California, Davis

11:20 a.m. **Identifying Differentially Expressed Genes for Time-Course Microarray Data Through Functional Data Analysis—**❖Kun Chen, University of California, Davis**;** Jane-Ling Wang, University of California, Davis

11:35 a.m. **RDCurve: A Nonparametric Method To Evaluate the Stability of Selection Procedures—**❖Xin Lu, University of California, San Diego

11:50 a.m. **Sample Size Estimation for Factorial Designs in Microarray Studies—**❖Bruce Thompson, Clinical Trials & Surveys Corp.; Clara Chu, Clinical Trials & Surveys Corp.; Thomas J. Richards, University of Pittsburgh Medical Center

12:05 p.m. **Normalization for Replicated MicroRNA Array Data with Spike-In Controls—**❖Yuhua Su, Yale University; Joanne B. Weidhaas, Yale University; Daniel Zelterman, Yale University

144 CC-155 D

● ✪ Machine Learning and Related Issues—Contributed

Biometrics Section

Chair(s): Hao Zhang, North Carolina State University

10:35 a.m. **Integration of Relational and Hierarchical Network Information: Prediction of Protein Function—**❖Xiaoyu Jiang, Boston University; Eric D. Kolaczyk, Boston University; Simon Kasif, Boston University

10:50 a.m. **Subject-Adaptive, Real-Time Sleep Stage Classification Based on Conditional Random Field—**❖Gang Luo, IBM T.J. Watson Research Center; Wanli Min, IBM T.J. Watson Research Center

11:05 a.m. **Variable Selection for Optimal Decisionmaking—**❖Lacey Gunter, University of Michigan; Susan Murphy, University of Michigan; Ji Zhu, University of Michigan

11:20 a.m. **Correlation Analysis Between Two Sets of Brain Images—**❖Yeming Ma, State University of New York at Stony Brook

11:35 a.m. **Covariate Effect Estimation with Partial Penalization—**❖Jiang Gui, Dartmouth Medical School; James Sargent, Dartmouth Medical School

11:50 a.m. **Variable Importance Selection: Random Forest vs. Logistic Regression—**❖Andrejus Parfionovas, Utah State University; Adele Cutler, Utah State University

12:05 p.m. **Inference for Dynamic Treatment Regimes via Q-Learning—**❖Bibhas Chakraborty, University of Michigan; Susan Murphy, University of Michigan

145 CC-155 F

● ✪ Statistical Issues in Noninferiority and Equivalence Trials—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Stephanie Dunbar, Merck & Co., Inc.

10:35 a.m. **Generalized Mixed Models for Noninferiority Trials—**❖Robert Abugov, U.S. Food and Drug Administration

10:50 a.m. **Trials and Tribulations in Choosing Noninferiority Margins—**❖John Johnson, Cato Research, Ltd.

11:05 a.m. **A Testing Strategy for Noninferiority and/or Superiority Hypotheses on Multiple Endpoints—**❖Xiaohui Luo, Merck & Co., Inc.; Jianjun Li, Merck & Co., Inc.

11:20 a.m. **New Tests for Assessing Noninferiority and Equivalence from Survival Data—**❖Kallappa Koti, U.S. Food and Drug Administration

11:35 a.m. **A Multivariate Test for Population Bioequivalence—**❖Inna Chervoneva, Thomas Jefferson University; Terry Hyslop, Thomas Jefferson University; Walter W. Hauck, Kimmel Cancer Center at Jefferson

11:50 a.m. **Estimation of Long-Term Vaccine Efficacy and Waning Effects Using Surveillance Interval Data—**❖Martha Lee, U.S. Food and Drug Administration; Tsai-Lien Lin, U.S. Food and Drug Administration

12:05 p.m. **An Equivalence Test Based on the Duration of Treatment Effect as Measured by Median Time-to-Event—**❖Suriani Pokta, Allergan, Inc.; Jihao Zhou, Allergan, Inc.

146 CC-250 A

Long Memory and Related Processes—Contributed

Business and Economics Statistics Section

Chair(s): Alicia Carriquiry, Iowa State University

10:35 a.m. **Estimation in Long-Time Memory Processes—**❖Wen Li, Iowa State University; Alicia Carriquiry, Iowa State University; Wolfgang Kliemann, Iowa State University; Cindy Yu, Iowa State University

10:50 a.m. **Unit Root Tests in the Presence of a Simultaneous Break in the Mean and the Innovation Variance—**❖Amit Sen, Xavier University

11:05 a.m. **Long-Memory Parameter Estimation in Time Series and Its Connection to fBm—**❖Michael Levine, Purdue University; Frederi Viens, Purdue University; Soledad Torres, Universidad de Valparaiso

11:20 a.m. **A Power Study of Seasonal Unit Root Tests for Quarterly Data**—❖Qianyi Zhang, North Carolina State University; David Dickey, North Carolina State University; Sastry Pantula, North Carolina State University

11:35 a.m. **Test of Cointegration Using Long Run Canonical Correlations: Part I**—❖Kalidas Jana, University of Texas at Brownsville; Alastair R. Hall, University of Manchester

11:50 a.m. **Contemporaneous Aggregation of Time Series**—❖Georgios Tripodis, University of Massachusetts Amherst; Jeremy Penzer, London School of Economics

12:05 p.m. **Feature Extraction Using Functional Data Analysis for Screening Large Numbers of Time Series**—❖Ganesh Subramaniam, AT&T Labs - Research; Ravi Varadhan, The Johns Hopkins University; Ciprian M. Crainiceanu, The Johns Hopkins University

147 CC-250 B

Bayesian Approaches in Machine Learning and Model Selection—Contributed

Section on Bayesian Statistical Science

Chair(s): Meijuan Li, The University of Minnesota

10:35 a.m. **Principal Component Reduction in Linear Mixed B-Splines**—❖Carsten Botts, Williams College; Michael Daniels, University of Florida

10:50 a.m. **Adaptive Dynamic Bayesian Networks**—❖Brenda Ng, Lawrence Livermore National Laboratory

11:05 a.m. **Testing Equality of Several Functions**—❖Sam Behseta, California State University; Robert E. Kass, Carnegie Mellon University

11:20 a.m. **Aspects of Bayesian Lasso Regression**—❖Christopher Hans, The Ohio State University; Steven N. MacEachern, The Ohio State University

11:35 a.m. **Bayesian Adaptive LASSO for Linear Models**—❖Yi-Liang Tung, National Cheng Kung University

11:50 a.m. **Bayesian Kernel Regression with Feature Selection**—❖Zhi Ouyang, Duke University; Merlise A. Clyde, Duke University; Robert L. Wolpert, Duke University

12:05 p.m. **Bayesian Model Averaging Using Adaptive Sampling**—❖Joyee Ghosh, Duke University; Merlise A. Clyde, Duke University

148 CC-259

● ✪ Innovative Bayesian and Frequentist Models for Health Using Individual and Ecologic Data—Contributed

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

Chair(s): Susan L. Stewart, University of California, San Francisco

10:35 a.m. **Truth or Consequences: Estimating Error Due to Inconsistent Self-Report of Adolescent Risk Behaviors**—❖Janet Rosenbaum, Harvard University

10:50 a.m. **A Statistical Tool Based on a Model of Personal and Ecologic Characteristics To Explain Deprivation in U.S. Health Care Access**—❖Martey Dodoo, The Robert Graham Center; Robert Phillips, Robert Graham Center; Xingyou Zhang, The Robert Graham Center

11:05 a.m. **Bayesian Hierarchal Modeling of Small-Area Suicide Rates: A Geographical and Ecological Evaluation**—❖Yi Lin, University of British Columbia; Ying MacNab, University of British Columbia

11:20 a.m. **Distribution of Cronbach's Alpha for Ordinal Data: A Bayesian-Based Approach**—❖Byron Gajewski, The University of Kansas Medical Center; Diane K. Boyle, The University of Kansas Medical Center; Sarah Thompson, University of Nebraska Medical Center

11:35 a.m. **A Bayesian Two-Part Model for Bounded Non-Negative Data: Estimating Extra Time Spent on Diabetes Self-Care**—❖Betsy C. Gunnels, Centers for Disease Control and Prevention; Theodore J. Thompson, Centers for Disease Control and Prevention; Louise B. Russell, Rutgers University; Susan L. Ettner, University of California, Los Angeles; James P. Boyle, Centers for Disease Control and Prevention

11:50 a.m. **Joint Modeling of Birth Weight and Gestational Age via the Gibbs Sampler**—❖Betsy Enstrom, Duke University; Alan E. Gelfand, Duke University; Geeta Swamy, Duke University; Marie Lynn Miranda, Duke University

12:05 p.m. **Characterizing Drug Diffusion with Patient-Level Data**—❖Camelia Sima, MSKCC; Katherine Panageas, MSKCC; Glenn Heller, MSKCC; Deborah Schrag, MSKCC

149 CC-251 A

✪ Semiparametric and Nonparametric Inference—Contributed

Section on Nonparametric Statistics

Chair(s): Alan Polansky, Northern Illinois University

10:35 a.m. **Confidence Intervals for a Discrete Population Median—**❖Ronald Randles, University of Florida**;** Denis Larocque, HEC Montreal

10:50 a.m. **A Family of Kurtosis Orderings for Multivariate Distributions—**❖Jin Wang, Northern Arizona University

11:05 a.m. **Rank-Weighted, Two-Sample U-Statistics with Application to Partial Area Under ROC Curves—**❖Chengqing (Alan) Wu, National Institutes of Health**;** Aiyi Liu, National Institutes of Health**;** Kai Fun Yu, National Institutes of Health

11:20 a.m. **When Does the Wilcoxon-Mann-Whitney Fail?—**❖Abu Minhajuddin, The University of Texas Southwestern Medical Center at Dallas**;** Paul Nakonezny, The University of Texas Southwestern Medical Center at Dallas

11:35 a.m. **Smoothed Mann-Whitney Method for Two-Sample Location Problem—**❖Feridun Tasdan, Western Illinois University

11:50 a.m. **Diagnostics for Rank Estimates for a Mixed Model—**❖John Kloke, Pomona College**;** Joseph W. McKean, Western Michigan University**;** M. Mushfiqur Rashid, U.S. Food and Drug Administration

12:05 p.m. **Clusterwise Regression Using Dirichlet Mixtures—**❖Subhashis Ghoshal, North Carolina State University**;** Changku Kang, Bank of Korea

150 CC-251 F

● ✪ Symbolic, Time Series, and Image Analysis II—Contributed

Section on Statistical Computing, Section on Statistical Graphics

Chair(s): Michael Trosset, Indiana University

10:35 a.m. **Symbolic Data Analysis—**❖Lynne Billard, University of Georgia

10:50 a.m. **Temporal Statistics for Consequences of Alcohol Use—**❖Peter Mburu, George Mason University**;** Yasmin H. Said, George Mason University**;** Edward Wegman, George Mason University

11:05 a.m. **Time-Frequency Analysis of Electroencephalogram Series—**❖Wei Yang, SUNY at Albany**;** Stephen Wong, University of Pennsylvania**;** Igor Zurbenko, SUNY at Albany

11:20 a.m. **Temporal Extensions to Spatial Statistical Metrics—**❖James Shine, U.S. Army Topographic Engineering Center**;** James P. Rogers, U.S. Army Corps of Engineers**;** Mete Celik, The University of Minnesota**;** Shashi Shekhar, The University of Minnesota

11:35 a.m. **Approaches to Time Series Clustering—**❖Hwanseok Choi, The University of Alabama**;** J. Michael Hardin, The University of Alabama

11:50 a.m. **An Empirical Spectral Test (EST) for Random Sequences—**❖David Zeitler, Grand Valley State University**;** Joseph W. McKean, Western Michigan University**;** John Kapenga, Western Michigan University

12:05 p.m. **Using Geometrical Tools for Dimension Reduction of Images—**❖Evgenia Rubinshtein, University of Central Arkansas**;** Anuj Srivastata, Florida State University

151 CC-155 E

● Reducing Bias in Epidemiological Studies: Two-Phase Sampling and Missing Data Methods—Contributed

Section on Statistics in Epidemiology, Section on Health Policy Statistics

Chair(s): Mari Palta, University of Wisconsin-Madison

10:35 a.m. **A Method To Assess Bias Reduction in Observational Studies of Influenza Vaccine Effectiveness—**❖Jennifer Nelson, Group Health Center for Health Studies**;** Michael Jackson, Group Health Center for Health Studies**;** Noel Weiss, University of Washington**;** Lisa Jackson, Group Health Center for Health Studies

10:50 a.m. **Multiple Imputation To Control for Unmeasured Confounding Using an Internal Validation Study—**❖Robert Glynn, Brigham and Women's Hospital**;** Til Stürmer, Brigham and Women's Hospital

11:05 a.m. **Estimation of Causal Effects in Studies with Outcome-Dependent, Two-Phase Sampling—**❖Weiwei Wang, Johns Hopkins Bloomberg School of Public Health**;** Daniel Scharfstein, Johns Hopkins Bloomberg School of Public Health**;** Zhiqiang Tan, Johns Hopkins Bloomberg School of Public Health**;** Ellen MacKenzie, Johns Hopkins Bloomberg School of Public Health

11:20 a.m. **Analysis of Epidemiological Studies with an Outcome-Dependent Sampling Design—**❖Haibo Zhou, The University of North Carolina at Chapel Hill

11:35 a.m. **Estimates of Causal Effects of a Continuous Exposure Using Multiple Imputation—**❖Sundar Natarajan, Veterans Affairs New York Harbor Healthcare System/New York University**;** Stuart R. Lipsitz, Brigham and Women's Hospital**;** Garrett Fitzmaurice, Harvard University**;** Scott Regenbogen, Harvard School of Public Health

11:50 a.m. **Nonparametric Regression with Missing Data Using Kernel-Estimating Equations—**❖Lu Wang, Harvard University**;** Xihong Lin, Harvard School of Public Health**;** Andrea Rotnitzky, Universidad Torcuato Di Tella

12:05 p.m. **Semiparametric Efficient Causal Inference with Missing Data—**❖Yue Shentu, Merck & Co., Inc.**;** Minge Xie, Rutgers University

152 CC-355 D

● Survey Measurement and Data Quality—Contributed

Section on Survey Research Methods, Social Statistics Section

Chair(s): Holly Shulman, Centers for Disease Control and Prevention

10:35 a.m. **Can Study Design Influence Substantive Survey Results?—**❖Dhuly Chowdhury, RTI International**;** Karol Krotki, RTI International**;** Lily Trofimovich, RTI International

10:50 a.m. **SOI Develops Better Survey Questions Through Pretesting—**❖Tara Wells, Internal Revenue Service**;** Diane M. Milleville, Internal Revenue Service

11:05 a.m. **A New Approach to Measuring Residence Status—**❖Jennifer Childs, U.S. Census Bureau**;** Elizabeth M. Nichols, U.S. Census Bureau

11:20 a.m. **Evaluating the Computer Audio-Recorded Interviewing (CARI) Household Wellness Study (HWS) Field Test—**Taniecea Arceneaux, U.S. Census Bureau**;** ❖Sherry E. Thorpe, U.S. Census Bureau

11:35 a.m. **Patterns of Nonresponse for Key Questions in NSDUH and Implications for Imputation—**❖Peter Frechtel, RTI International**;** Elizabeth Copello, RTI International

11:50 a.m. **The Impact on Data Quality of the Transition to Clean-Burning, On-Highway Diesel—**❖Paula Weir, Energy Information Administration**;** Pedro J. Saavedra, Macro International**;** Benita O'Colmain, Macro International

12:05 p.m. **Interviewer Variability and Survey Estimates: Quantifying Data Quality—**❖Novie Younger, The University of the West Indies at Mona, Jamaica**;** Damion Francis, University of the West Indies**;** Shelly McFarlane, University of the West Indies**;** Jan van den Broeck, University of the West Indies**;** Georgiana Gordon-Strachan, University of the West Indies**;** Andriene Grant, Ministry of Health, Jamaica**;** Deanna Ashley, Ministry of Health, Jamaica**;** Rainford Wilks, University of the West Indies

153 CC-355 A

● Survey Weighting and Calibration Methods—Contributed

Section on Survey Research Methods

Chair(s): Stanislav Kolenikov, University of Missouri-Columbia

10:35 a.m. **Comparing Estimate Bias and Variances Using Calibrated Weights with a Different Number of Constraints in a Sample with Oversamples in Specific Groups—**❖Nuria Diaz-Tena, TNS-Global**;** Rob Cole, TNS-Global**;** Partha Dass, TNS-Global

10:50 a.m. **A New Algorithm for High-Dimensional Calibration in Observational Studies—**❖Michael E. Jones, Westat**;** Ismael Flores Cervantes, Westat**;** David R. Judkins, Westat

11:05 a.m. **Improving the Unit Nonresponse Adjustment in the NLSCY Using Logistic Regression Modeling and Calibration—**❖Mike Tam, Statistics Canada**;** Marcelle Tremblay, Statistics Canada**;** Sarah Franklin, Statistics Canada**;** Claude Girard, Statistics Canada

11:20 a.m. **Weight-Trimming in the National Immunization Survey (NIS)—**❖Sadeq Chowdhury, NORC at the University of Chicago**;** Meena Khare, National Center for Health Statistics**;** Kirk Wolter, NORC at the University of Chicago

11:35 a.m. **Testing for Informative Weights and Weights Truncation in Multivariate and Multilevel Modeling with Survey Data—**❖Tihomir Asparouhov, Muthen & Muthen**;** Bengt Muthen, University of California, Los Angeles

11:50 a.m. **An Application of Alternative Weighting Matrix Collapsing Approaches for Improving Sample Estimates—**❖Linda Tompkins, Centers for Disease Control and Prevention**;** Jay J. Kim, National Center for Health Statistics

12:05 p.m. **Bayesian Weight-Smoothing Models in Clustered or Cross-Classed Sample Designs—**❖Xiaobi Huang, University of Michigan**;** Michael R. Elliott, University of Michigan

Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

154 CC-Exhibit Hall D

Contributed Poster Presentations—Contributed

Biometrics Section, Biopharmaceutical Section, ENAR, WNAR, Section on Statistical Consulting, Section on Statistical Computing

Chair(s): Dongseok Choi, Oregon Health & Science University

Applications and case studies

01 **A Quantitative Assessment of Diagnostic Cutoff Point Selection Methods—**❖Michael Andrew, Centers for Disease Control and Prevention; Shengqiao Li, Centers for Disease Control and Prevention; Harshinder Singh, West Virginia University

02 **Application of Principal Component Analysis in the Reduction of a 19-Item Clinical Scale—**❖Hong Liu-Seifert, Eli Lilly and Company

03 **Statistical Applications in High-Throughput siRNA Synthetic Lethality Screens—**❖Yue Li, Lilly Singapore Center for Drug Discovery; Gopinath Ganji, Lilly Singapore Center for Drug Discovery; Holly Yin, Translational Genomics Research Institute; Quick Que, Translational Genomics Research Institute; Kok Long Ang, Lilly Singapore Center for Drug Discovery; Libin Ma, Lilly Singapore Center for Drug Discovery; Song Wu, Lilly Singapore Center for Drug Discovery; Greg Tucker-Kellogg, Lilly Singapore Center for Drug Discovery

04 **Outlier Detection for a High-Throughput Bioassay—**❖Shea Watrin, Amgen Inc.; Ye Frank, Amgen Inc.

05 **The Effects of Sampling and Sample Preparation on Analytical Sensitivity—**❖Thea Eudey, California State University, East Bay; Richard Lewis, GlaxoSmithKline

06 **Binary Logistic Regression Modeling of Precursor Sequence Cleavage—**❖Allison Tegge, University of Illinois at Urbana-Champaign; Sandra Rodriguez-Zas, University of Illinois at Urbana-Champaign; Bruce Southey, University of Illinois at Urbana-Champaign

Bayesian statistics, hierarchical models

07 **Frequentist and Bayesian Complement Each Other—**❖Tie-Hua Ng, U.S. Food and Drug Administration

Biometrics, bioinformatics, computational biology

08 **Sample-Size Determination for a Flow Cytometry Assay—**❖Elaine A. McVey, BD Technologies; Perry Haaland, BD Technologies; Friedrich Hahn, BD Technologies

09 **Testing for Ordered Alternatives in the Analysis of Genetic Association Studies—**❖Julia Kozlitina, Southern Methodist University

10 **Array Analysis To Assess Effects of RNAi-Based Silencing in Relation to Flavonoid Transport—**❖Robert Norton, California State University, East Bay; Mousumi Rath, California State University, East Bay; Claudia Uhde-Stone, California State University, East Bay

11 **A Semiparametric Mixture Model for Identifying Cis-Acting Regulatory Elements—**❖Gregory Hather, University of California, Berkeley; Terence Speed, University of California, Berkeley; Mary Wildermuth, University of California, Berkeley

12 **Reproducibility of Microarray Data: A Further Analysis of Microarray Quality Control Data—**❖Chien-Ju Lin, National Center for Toxicological Research; James J. Chen, U.S. Food and Drug Administration; Huey-Miin Hsueh, National Chengchi University; Robert R. Delongchamp, National Center for Toxicological Research; Chen-An Tsai, Academia Sinica

13 **An EM Algorithm for Identifying Genotypic Structure Using Genome-Wide Expression Data—**❖Ellen Breazel, University of Georgia; Paul Schliekelman, University of Georgia

14 **A Novel Application of Quantile Regression for Identification of Cartilage Biomarkers in Equine Microarray Data—**❖Liping Huang, University of Kentucky; Christopher Saunders, George Mason University; Wenying Zhu, University of Kentucky; Jamie MacLeod, University of Kentucky; Arnold Stromberg, University of Kentucky; Arne Bathke, University of Kentucky

15 **A Novel Method of Identifying Differentially Expressed Genes Based on Probe-Level Data for GeneChip Arrays—**❖Zhongxue Chen, Southern Methodist University; Monnie McGee, Southern Methodist University; Qingzhong Liu, New Mexico Institute of Mining and Technology; Megan Kong, The University of Texas Southwestern Medical Center at Dallas; Richard Scheuermann, The University of Texas Southwestern Medical Center at Dallas

16 **A Network-Based Gene Screening Approach—**❖Wei Zhao, University of California, Los Angeles; Paul Mischel, University of California, Los Angeles; Steve Horvath, University of California, Los Angeles

17 **Statistical Methods for Peptide Identification Using Tandem Mass Spectrometry Through Sequence Database Searching—**❖Qunhua Li, University of Washington; Matthew Stephens, The University of Chicago

Clinical trials, drug discovery

18 **Development and Application of a Multivariate Mantel-Haenszel Mean Scores Test**—❖Rebecca McNeil, Medical University of South Carolina; Robert Woolson, Medical University of South Carolina; Carol Wagner, Medical University of South Carolina

19 **Curtailed Two-Stage Design for Phase II Clinical Trial**—Yunchan Chi, National Cheng Kung University; ❖Chiamin Chen, National Cheng-Kung University

20 **Statistical Evaluation of Bone Mineral Density as a Surrogate Endpoint for Fracture with or Without Baseline Consideration**—❖Peiqi Chen, Eli Lilly and Company; Asad Rana, Eli Lilly and Company

21 **A Composite Endpoint for Vulvovaginal Symptoms in VVA Clinical Trials**—❖Moh-Jee Ng, U.S. Food and Drug Administration; Ling Chen, U.S. Food and Drug Administration

22 **Predicting Accrual in Clinical Trials: Bayesian Posterior Predictive Distribution**—❖Stephen D. Simon, Children's Mercy Hospital; Byron Gajewski, The University of Kansas Medical Center

23 **Inference in Clinical Trial Using ROC Curve Regression**—❖Lin Zhang, Baylor University; Jack Tubbs, Baylor University

24 **Semiparametric Smoothing for Scintigraphy Data from a Three-Period Crossover Design**—❖Jo Edmonds, Baylor University; John W. Seaman, Jr., Baylor University

25 **A Performance Analysis of Distribution-Free Tests for Drug Interaction**—❖Yuhong Tang, Sam Houston State University; Melinda M. Holt, Sam Houston State University

26 **Drug Combination Studies in Preclinical Pharmaceutical Research**—❖Joseph Haas, Eli Lilly and Company; Philip Iversen, Eli Lilly and Company

27 **Evaluation of Soluble KIT as a Potential Surrogate Marker for Time-to-Tumor Progression in Patients with Advanced GIST by Several Recently Proposed Methods**—❖Xin Huang, Pfizer Inc.; Sam DePrimo, Pfizer Inc.; Jenny Zhang, Harvard University; Charles Harmon, Pfizer Inc.; John Smeraglia, Pfizer Inc.; Chuck Baum, Pfizer Inc.; Randy Allred, Pfizer Inc.

28 **Exact Inference for Nominal and Rating Scale Data with Repeated Measurements in Clinical Trials with Parallel Group Design**—❖James Lee, Daiichi Sankyo Pharma Development; John Dar Shong Hwang, B.R.S.I.

29 **Identification of Treatment Effects in the Presence of Deviation from Randomized Assignment: Application to a Surgical Setting**—❖Corwin Zigler, University of California, Los Angeles

Data mining and knowledge discovery, machine learning

30 **Semisupervised Technique and Its Learning Rate in Intelligent Systems**—❖Morteza Marzjarani, Saginaw Valley State University

31 **The Multinode Topological Overlap Measure for Gene Neighborhood Analysis**—❖Ai Li, University of California, Los Angeles; Steve Horvath, University of California, Los Angeles

Environmetrics, ecology, agriculture, wildlife management

32 **Modeling Movement and Diving Behavior of Satellite-Tagged Sea Turtles**—❖Eric Nordmoe, Kalamazoo College; Cheong Hoong Diong, Nanyang Technological University

Experimental design

33 **Repeated Classification as a Cost-Effective Sample Design To Test Association When There Are Random Misclassification Errors**—❖Nathan Tintle, Hope College

34 **Multivariate Exploration and Analysis of Crop Yield Components for Optimal Selection in Honeycomb Designs**—❖Andy Mauromoustakos, University of Arkansas; Vasilia Fasoula, The University of Georgia; Kevin Thompson, University of Arkansas

Health policy, epidemiology, public health

35 **An Additive Model for a Heavily Right-Skewed Outcome**—❖Amanda Allshouse, RTI Health Solutions; Jianmin Wang, RTI Health Solutions; Jasmine Mathias, RTI Health Solutions; William Irish, RTI Health Solutions

36 **A Study on Bayesian Signaling of a Prespecified Drug-Adverse Event Association in Post-Marketing Safety Studies**—❖Yu-te Wu, U.S. Food and Drug Administration; George Rochester, U.S. Food and Drug Administration; Yi Tsong, U.S. Food and Drug Administration

Linear models, GLMs, parametric methods

37 **Comparing Exact and Asymptotic Confidence Intervals for a Function of Variance Components**—❖Brent Burch, Northern Arizona University

38 **Testing for Slope Equivalency of Two Orthogonal Analytical Methods**—❖Richard Burdick, Amgen Inc.; Shea Watrin, Amgen Inc.; Michael Stoner, Amgen Inc.

39 **Step-Down Pairwise Comparisons Based on the Studentized Range Distribution**—❖Scott Richter, The University of North Carolina at Greensboro; Melinda McCann, Oklahoma State University

Longitudinal data, repeated measurements, and meta-analysis

40 **An Iterative Least Squares Process To Obtain Unbiased Variance Estimates at the Second Stage of a Two-Stage Model for Longitudinal Data—**❖Mary Bartholomew, U.S. Food and Drug Administration; Chris Gennings, Virginia Commonwealth University

41 **Type I and Type II Error Properties for White's Robust Covariance Matrix Estimator in Longitudinal Designs with Several Repeats—**❖Keith Williams, University of Arkansas for Medical Sciences; Deborah W. Biddle, University of Arkansas for Medical Sciences

42 **Effect of Ignoring Baseline on Transitions from Intact Cognition to Dementia—**❖Richard J. Kryscio, University of Kentucky; Lei Yu, University of Kentucky; David Snowdon, University of Kentucky; Suzanne Tyas, University of Waterloo

43 **A Simulation Study Comparing Linear Mixed Models and Generalized Estimation Equations for Use in Longitudinal Biomarker Study for Exposure to Cigarette Smoke—**❖Qiwei Liang, Philip Morris USA; Huajiang Li, Quintiles Inc.; Hans Roethig, Philip Morris USA

Mathematical statistics, distribution theory, robust statistics

44 **A New Class of Location Parameters and Estimators—**❖Roy St Laurent, Northern Arizona University; Ian Harris, Southern Methodist University

Medical devices

45 **Effect of Sample Aliquot Size on the Sensitivity and Reproducibility of Clinical Assays—**❖Guorong Chen, Digene Corp; Irina Nazarenko, Digene Corp

46 **Noninferiority Testing with a Given Percentage of the Control as the Noninferiority Margin—**❖Paul Hshieh, U.S. Food and Drug Administration

Pharmacokinetics and pharmacodynamics

47 **Using Spline-Enhanced ODEs for PK/PD Model Development—**❖Dong Wang, University of Nebraska-Lincoln; Yi Wang, University of Nebraska-Lincoln; Kent Eskridge, University of Nebraska-Lincoln; Shunpu Zhang, University of Nebraska-Lincoln

Time series/wavelet analysis

48 **Wavelet Analysis of Super-Frequent fMRI—**❖Zibonele Valdez-Jasso, The University of Texas at Dallas

49 **Statistical Analysis of EEG-Sleep Patterns of Neonates—**❖Alexandra Piryatinska, San Francisco State University

Speaker with Lunch 12:30 p.m.–1:50 p.m.

155 CC-Ballroom D

Section on Statistics in Sports Speaker with Lunch (fee event)—Speaker with Lunch

Section on Statistics in Sports

Organizer(s): Michael Schell, Moffitt Cancer Center

ML09 **Is Tiger a Winner, or Is He Just Better Than Everyone?—**❖Scott Berry, Berry Consultants

Roundtables with Lunch 12:30 p.m.–1:50 p.m.

156 CC-Ballroom A

Biopharmaceutical Section Roundtables with Lunch (fee event)

Biopharmaceutical Section

Organizer(s): Kaylan Ghosh, Vislation

ML10 **Innovative Design and Analysis of FDA Medical Device Submissions—**❖Gary Kamer, U.S. Food and Drug Administration

ML11 **Blocks, Strata, and Covariates: What's in a Name?—**❖Veronica Taylor, U.S. Food and Drug Administration

ML12 **The Use of Meta-Analysis in Drug Development—**❖Tsushung Hua, Novartis Pharmaceuticals

ML13 **Evaluating Probability of Success for Internal Decisionmaking in Early Drug Development—**❖Narinder Nangia, Abbott Laboratories

157 CC-Ballroom A

Business and Economics Statistics Section Roundtable with Lunch (fee event)

Business and Economics Statistics Section

Organizer(s): Clifford M. Hurvich, New York University

ML14 **Statistics Teaching: Bayesian, Frequentist, United—**❖Emanuel Parzen, Texas A&M University

158 CC-Ballroom A

Section on Bayesian Statistical Science Roundtable with Lunch (fee event)

Section on Bayesian Statistical Science

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

ML15 **Dealing with Review Efficiency: A Practical Bayesian Approach—**❖Xiao-li Meng, Harvard University

159 CC-Ballroom A

Section on Government Statistics Roundtable with Lunch (fee event)

Section on Government Statistics

Organizer(s): Michael Davern, The University of Minnesota

ML16 **Design and Use of the IPUMS International Data Series—**❖Matthew Sobek, The University of Minnesota

CANCELLED

160 CC-Ballroom A

Section on Health Policy Statistics Roundtable with Lunch (fee event)

Section on Health Policy Statistics

Organizer(s): Anirban Basu, The University of Chicago

ML17 **Estimation of Causal Effects in Health Services and Outcome Research Using Observational Data—**❖Lirong Zhao, University of Maryland

161 CC-Ballroom A

Section on Physical and Engineering Sciences Roundtables with Lunch (fee event)

Section on Physical and Engineering Sciences

Organizer(s): Randall Tobias, SAS Institute Inc.

ML18 **Sensor-Based Field Reliability Data Analysis: Opportunities and Challenges—**❖Necip Doganaksoy, General Electric

ML19 **Non-Negative Matrix Factorization in Statistics—**❖S. Stanley Young, National Institute of Statistical Sciences

162 CC-Ballroom C

Section on Quality and Productivity Roundtable with Lunch (fee event)

Section on Quality and Productivity

Organizer(s): James Williams, GE Global Research

ML20 **Exposing Students to Six Sigma as Part of Their University Training—**❖Angie Patterson, GE Global Research

163 CC-Ballroom C

Section on Risk Analysis Roundtable with Lunch (fee event)

Section on Risk Analysis

Organizer(s): Susan Simmons, The University of North Carolina at Wilmington

ML21 **Harnessing the Power of Information in Quantitative Risk Assessment—**❖Walter W. Piegorsch, The University of Arizona

164 CC-Ballroom C

Section on Statistical Consulting Roundtable with Lunch (fee event)

Section on Statistical Consulting

Organizer(s): James Grady, The University of Texas Medical Branch

ML22 **Right Answer, Wrong Question: Characterization and Reduction of the Risk of Type III Error in Statistical Applications—**❖John L. Eltinge, Bureau of Labor Statistics

165 CC-Ballroom C

Section on Statistical Education Roundtables with Lunch (fee event)

Section on Statistical Education

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

ML23 **Spanning the Globe: Using Data To Introduce Students to the Rest of the World—**❖Robert Carver, Stonehill College

ML24 **TA Training for Introductory Statistics Courses—**❖Jessica Utts, University of California, Davis

ML25 **Learning to Teach Statistics: Challenges and Suggestions—**❖Candace Berrett, The Ohio State University; Jacqueline Miller, The Ohio State University

166 CC-Ballroom C

Section on Statistical Graphics Roundtable with Lunch (fee event)

Section on Statistical Graphics

Organizer(s): David Hunter, The Pennsylvania State University

ML26 **Graphical Data Mining of Network Data—**❖George Michailidis, The University of Michigan

167 CC-Ballroom C

Section on Statisticians in Defense and National Security Roundtable with Lunch (fee event)

Section on Statisticians in Defense and National Security

Organizer(s): David Marchette, Naval Surface Warfare Center

ML27 **Increasing Understanding of the Need for Statistics in Defense and Security—**❖Alyson G. Wilson, Los Alamos National Laboratory

168 CC-Ballroom C

Section on Statistics in Epidemiology Roundtable with Lunch (fee event)

Section on Statistics in Epidemiology

Organizer(s): William E. Barlow, Cancer Research and Biostatistics

ML28 **Gerontologic Biostatistics and the Challenges of Conducting Biomedical Research with Older Populations—**❖Peter H. Van Ness, Yale University**;** ❖Heather G. Allore, Yale University

169 CC-Ballroom C

Section on Survey Research Methods Roundtable with Lunch (fee event)

Section on Survey Research Methods

Organizer(s): David Marker, Westat

ML29 **What Happened in Florida-13's Election Last Year, and What Can We Do To Improve Electoral Integrity?—**❖Arlene Ash, Boston University

170 CC-Ballroom C

Social Statistics Section Roundtable with Lunch (fee event)

Social Statistics Section

Organizer(s): Jana Asher, Carnegie Mellon University

ML30 **Linking Survey Data and Administrative Data for Policy Research—**❖Michael Davern, The University of Minnesota

Special Presentation 2:00 p.m.–3:50 p.m.

171 CC-Ballroom B

Late-Breaking Session 1: Statistical Analysis of an Archeological Find—Other

ASA, ENAR, IMS, WNAR, SSC

Organizer(s): Allan Rossman, California Polytechnic State University

Chair(s): Hal Stern, University of California, Irvine

2:05 p.m. **Statistical Analysis of an Archeological Find—**❖Andrey Feuerverger, University of Toronto

2:50 p.m. Disc: Aleks Jakulin, Columbia University

3:05 p.m. Disc: Stephen Fienberg, Carnegie Mellon University

3:20 p.m. Disc: Donald Bentley, Pomona College

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

Invited Sessions 2:00 p.m.–3:50 p.m.

172 CC-255 C

● ✪ Statistical Issues in High-Dimensional Omics Data and Biomarker Discovery—Invited

Biopharmaceutical Section, ENAR, Biometrics Section

Organizer(s): Lei Zhu, GlaxoSmithKline

Chair(s): Lei Zhu, GlaxoSmithKline

2:05 p.m. **Systems-Based Analysis of Metabolic Profiles—**❖Jacqueline M. Hughes-Oliver, North Carolina State University

2:30 p.m. **Toward Superior Classifications with ABC Dissimilarities: A Microarray Case Study—**❖Dhammika Amaratunga, Johnson & Johnson PRD**;** Javier Cabrera, Rutgers University**;** Vladimir Kovtun, Rutgers University

2:55 p.m. **Sample Size Estimation for Omics Experiments—**❖Gregory R. Warnes, University of Rochester**;** Peng Liu, Iowa State University

3:20 p.m. Disc: Kwan Lee, GlaxoSmithKline

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

173 CC-255 A

● ✪ Methods To Identify and Adjust for Selection Bias in Observational Studies—Invited

Section on Statistics in Epidemiology, Section on Health Policy Statistics, Section on Risk Analysis, Section on Teaching Statistics in the Health Sciences, WNAR

Organizer(s): Robert Glynn, Brigham and Women's Hospital

Chair(s): Robert Glynn, Brigham and Women's Hospital

2:05 p.m. **Propensity Score Calibration with Validation Data—**❖Til Stürmer, Brigham and Women's Hospital**;** Sebastian Schneeweiss, Brigham and Women's Hospital**;** Kenneth J. Rothman, Brigham and Women's Hospital**;** Jerry Avorn, Brigham and Women's Hospital**;** Robert Glynn, Brigham and Women's Hospital

2:30 p.m. **Bayesian Methods to Acknowledge Confounding and Mismeasurement—**❖Paul Gustafson, University of British Columbia**;** Lawrence McCandless, University of British Columbia

2:55 p.m. **Instrumental Variables in Pharmacoepidemiology—**❖M. Alan Brookhart, Brigham and Women's Hospital

3:20 p.m. Disc: Sander Greenland, University of California, Los Angeles

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

174 CC-251 B

✪ Advances in Contemporary Nonparametric Methods—Invited

Section on Nonparametric Statistics

Organizer(s): Soumendra N. Lahiri, Texas A&M University

Chair(s): Daniel Nordman, Iowa State University

2:05 p.m. **On Least-Squares Fitting for Spatial Point Processes—**❖Michael Sherman, Texas A&M University**;** Yongtao Guan, Yale University

2:30 p.m. **A GCV Approach for Bandwidth Selection in PET Image Reconstruction—**❖Ranjan Maitra, Iowa State University

2:55 p.m. **Minimax Estimators of the Coverage Probability of the Impermissible Error for a Location Family—**❖Miguel A. Arcones, Binghamton University

3:20 p.m. **Higher-Order Properties of Block Bootstrap Confidence Intervals—**❖Soumendra N. Lahiri, Texas A&M University

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

175 CC-257

✪ The Transition from Undergraduate to Graduate Study of Statistics—Invited

Mu Sigma Rho, Section on Statistical Education

Organizer(s): Marcia Gumpertz, North Carolina State University

Chair(s): Marcia Gumpertz, North Carolina State University

2:05 p.m. **Inspiring and Challenging Students in the Mathematical Sciences—**❖William Y. Velez, The University of Arizona

2:25 p.m. **Undergraduate Preparation—**❖L. Marlin Eby, Messiah College

2:45 p.m. **The First-Year Experience—**❖Matthew Ritter, North Carolina State University

3:05 p.m. **The First-Year of Graduate Studies in Statistics—**❖Pam Arroway, North Carolina State University

3:25 p.m. Disc: Julie Legler, St. Olaf College

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

176 CC-255 F

● ✪ State of the Art in Mixed Models Analysis—Invited

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

Organizer(s): Matthew Gurka, University of Virginia

Chair(s): Keith E. Muller, University of Florida

2:05 p.m. **Sample Size and Power Calculations in Late-Phase Clinical Trials with a Longitudinal Endpoint—**❖Jose Pinheiro, Novartis Pharmaceuticals

2:30 p.m. **Internal Pilot Designs and Mixed Models—**❖Matthew Gurka, University of Virginia**;** Christopher S. Coffey, The University of Alabama at Birmingham**;** Keith E. Muller, University of Florida

2:55 p.m. **Assessing the Performance of a Symmetric Divergence Information Criterion for Selecting the Best Linear Mixed Model—**❖Lloyd J. Edwards, The University of North Carolina at Chapel Hill**;** Anita Abraham, The University of North Carolina at Chapel Hill

3:20 p.m. Disc: Oliver Schabenberger, SAS Institute Inc.

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

177 CC-251 D

Machine Learning and Optimization—Invited

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

Organizer(s): Jon D. McAuliffe, University of Pennsylvania

Chair(s): Jon D. McAuliffe, University of Pennsylvania

2:05 p.m. **Support Vector Machines for Structured Outputs—**❖Thorsten Joachims, Cornell University

2:35 p.m. **Large-Scale Covariance Selection by Chordal Embedding—**❖Lieven Vandenberghe, University of California, Los Angeles**;** Joachim Dahl, Aalborg University

3:05 p.m. **Model Selection for SVMs through Bilevel Optimization—**❖Gautam Kunapuli, Rensselaer Polytechnic Institute

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

178 CC-250 D

● ✪ Analyzing Multiple-Response Categorical Data from Complex Survey Designs—Invited

Section on Survey Research Methods, SSC

Organizer(s): Thomas M. Loughin, Simon Fraser University

Chair(s): Thomas M. Loughin, Simon Fraser University

2:05 p.m. **Simple Practitioner-Oriented Hypothesis Tests for Various Types of Multiple Response Survey Data—**❖D. Roland Thomas, Carleton University**;** Yves J. Decady, Statistics Canada

2:30 p.m. **Estimation and Testing for Association with Multiple-Response Categorical Variables from Complex Surveys—**❖Christopher R. Bilder, University of Nebraska-Lincoln**;** Thomas M. Loughin, Simon Fraser University

2:55 p.m. **Bayesian Inference for a Stratified Categorical Variable Allowing All Possible Category Choices—** Balgobin Nandram, Worcester Polytechnic Institute**;** ❖Myron Katzoff, National Center for Health Statistics**;** Ma Criselda S. Toto, Worcester Polytechnic Institute

3:20 p.m. Disc: Robert Fay, U.S. Census Bureau

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

179 CC-155 F
● Fifty Years of the National Health Interview Survey—Invited

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

Organizer(s): Jane F. Gentleman, National Center for Health Statistics

Chair(s): Van Parsons, National Center for Health Statistics

2:05 p.m. **The Evolution of Concepts in the National Health Interview Survey—**❖Jennifer Madans, National Center for Health Statistics

2:30 p.m. **Policy Uses of National Health Interview Survey (NHIS) Data on Health Insurance Coverage—** ❖Amy J. Davidoff, University of Maryland

2:55 p.m. **The National Health Interview Survey in the Present and in the Future—**❖Jane F. Gentleman, National Center for Health Statistics

3:20 p.m. **Fifty Years of the National Health Interview Survey—** ❖Nancy Breen, National Cancer Institute

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

180 CC-355 E
Financial Econometrics—Invited

IMS

Organizer(s): Jianqing Fan, Princeton University

Chair(s): Tony Cai, University of Pennsylvania

2:05 p.m. **Local Parametric Inference in the Hidden Semimartingale Model—**❖Per A. Mykland, The University of Chicago

2:35 p.m. **Parameter Estimation of Diffusion Process with Sequential Monte Carlo—**❖Rong Chen, University of Illinois at Chicago

3:05 p.m. **Heterogeneous Autoregressive Realized Volatility Model—**❖Yazhen Wang, University of Connecticut

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

181 CC-355 B
Large-Scale Data Mining—Invited

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

Organizer(s): Edward Wegman, George Mason University; Yasmin H. Said, George Mason University

Chair(s): David W. Scott, Rice University

2:05 p.m. **A New Family of Link Functions Extending Logistic Regression—**❖William DuMouchel, Lincoln Technologies

2:35 p.m. **Statistics and Search Engines—**❖Daryl Pregibon, Google

3:05 p.m. **A Poor Man's View of Data Mining—**❖William F. Szewczyk, National Security Agency

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

182 CC-155 B
● ✪ Missing Data in Longitudinal Studies—Invited

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

Organizer(s): Lang Wu, University of British Columbia

Chair(s): Lang Wu, University of British Columbia

2:05 p.m. **Mixed Nonhomogeneous Poisson Process Spline Models for the Analysis of Recurrent Event Panel Data—**❖Jason Nielsen, Simon Fraser University**;** Charmaine Dean, Simon Fraser University

2:30 p.m. **Reducing the Bias of Between- Within-Cluster Covariate Methods When Data Are Missing at Random—**❖John Neuhaus, University of California, San Francisco**;** Charles E. McCulloch, University of California, San Francisco

2:55 p.m. **Semiparametric Methods for Clustered Binary Data—**❖Grace Y. Yi, University of Waterloo**;** Wenqing He, University of Western Ontario**;** Hua Liang, University of Rochester

3:20 p.m. **Second-Order Least Squares Estimation for Nonlinear Mixed Effects Models—**❖Liqun Wang, University of Manitoba

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

Invited Panels 2:00 p.m.–3:50 p.m.

183 CC-254 A

Summer Institutes for Training in Biostatistics (SIBS): Addressing the Biostatistician Shortage—Invited

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

Organizer(s): Walter T. Ambrosius, Wake Forest University

Chair(s): Walter T. Ambrosius, Wake Forest University

Panelists:
- ❖ Song Yang, National Heart, Lung, and Blood Institute
- ❖ Ronald E. Gangnon, University of Wisconsin-Madison
- ❖ Lisa M. Sullivan, Boston University
- ❖ Kimberly S. Weems, North Carolina State University

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

184 CC-254 C

Rising from the Ashes of the SIPP: Opportunities and Challenges of the New Dynamics of Economic Well-Being System—Invited

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

Organizer(s): Daniel Kasprzyk, Mathematica Policy Research, Inc.

Chair(s): Daniel Kasprzyk, Mathematica Policy Research, Inc.

Panelists:
- ❖ David Johnson, U.S. Census Bureau
- ❖ Constance F. Citro, National Academy of Sciences
- ❖ Howard Iams, Social Security Administration
- ❖ Martin David, University of Wisconsin-Madison
- ❖ John Czajka, Mathematica Policy Research, Inc.

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

Invited Poster Presentations 2:00 p.m.–3:50 p.m.

185 CC-Exhibit Hall D

Invited Poster Presentations—Invited

Section on Statistics and the Environment, ENAR, IMS, SSC, WNAR, Biometrics Section

Chair(s): Dongseok Choi, Oregon Health & Science University

Spatial statistics, spatio-temporal modeling

50 **Estimation of Covariogram Models by Minimum Prediction Contrast for Kriging—**❖Marc Genton, University of Geneva; Olivier Perrin, University of Toulouse 1

51 **Experiments on the Earth: Smoothing and Spatial Statistics for Geophysical Applications Using Fields—**❖Stephan Sain, National Center for Atmospheric Research; Reinhard Furrer, Colorado School of Mines; Douglas Nychka, National Center for Atmospheric Research

52 **Stochastic Space-Time Regional Rainfall Modeling Adapted to Historical Rain Gauge Data—**❖Zepu Zhang, The University of Chicago; Paul Switzer, Stanford University

53 **Black Diamond Ski Runs and the Fields R Package—**❖Douglas Nychka, National Center for Atmospheric Research

Environmetrics, ecology, agriculture, wildlife management

54 **Reconstruction of NH Average Temperature by Hierarchical Bayesian Models—**❖Bo Li, National Center for Atmospheric Research; Douglas Nychka, National Center for Atmospheric Research; Caspar Ammann, National Center for Atmospheric Research

55 **Choice of Basis Functions in GAM Models of Air Pollution and Respiratory Health—**❖Chava Zibman, The University of Chicago; Vanja Dukic, The University of Chicago

56 **Statistical Approaches to El Niño Forecasting—**❖Souparno Ghosh, Texas A&M University; Amanda S. Hering, Texas A&M University; Salil Mahajan, Texas A&M University; Marc Genton, University of Geneva; Mikyoung Jun, Texas A&M University; Bani Mallick, Texas A&M University; Ramalingam Saravanan, Texas A&M University

57 **An International Comparison of Air Quality Standards—**❖Peter Guttorp, University of Washington; Laura Knudsen, University of Washington

58 **Space-Time Bayesian Environmental Modeling of the Chronic Wasting Disease in Deer—**❖Hae-Ryoung Song, University of South Carolina; Andrew B. Lawson, University of South Carolina; Dennis Heisey, U.S. Geological Survey; Damien Joly, Alberta Sustainable Resource Development

59 **Source Apportionment and Health Effects of Air Pollution—**❖Thomas Lumley, University of Washington

Applications and case studies

60 **The Exploration of Space-Time Data—**❖Li Chen, The University of Chicago; Michael Stein, The University of Chicago

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

186 CC-155 D

● Quantifying and Hedging Operational Risk—Topic-Contributed

Section on Risk Analysis

Organizer(s): Deborah Cernauskas, IBM

Chair(s): Anton Schick, Binghamton University

2:05 p.m. **Quantifying Project Management Delay Costs Through Simulation Modeling—**❖Andrew Kumiega, Spectrum Global**;** Deborah Cernauskas, IBM

2:25 p.m. **Environmental Risk Mitigation and Corporate Competitiveness—**❖Nasrin Khalili, IIT Stuart School of Business

2:45 p.m. **A Methodology for Trading and Investment System Development—**❖Benjamin Van Vliet, Illinois Institute of Technology**;** Andrew Kumiega, Spectrum Global

3:05 p.m. **Vendor Bid Evaluation Using a Risk-Adjusted Price Methodology—**❖Deborah Cernauskas, IBM

3:25 p.m. **Project Portfolio Optimization for Operational Risk Management—**❖Aberrahim Labbi, IBM/Zurich Labs

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

187 CC-355 F

● ✪ Model Selection and Applications—Topic-Contributed

Biometrics Section, ENAR

Organizer(s): Ronghui Xu, University of California, San Diego

Chair(s): Ronghui Xu, University of California, San Diego

2:05 p.m. **Adaptive Regressograms—**❖Anthony Gamst, University of California, San Diego

2:25 p.m. **On L1-Norm Multiclass Support Vector Machines: Classification of High-Dimension, Low Sample Size Data—**❖Lifeng Wang, University of Pennsylvania**;** Xiaotong Shen, The University of Minnesota

2:45 p.m. **Fence Methods for Quantitative Trait Loci Mapping in Humans—**❖Thuan Nguyen, University of California, Davis**;** Jiming Jiang, University of California, Davis**;** Jie Peng, University of California, Davis

3:05 p.m. **Model Selection Under the Proportional Hazards Mixed Effects Model (PHMM)—**❖Michael Donohue, University of California, San Diego**;** Ronghui Xu, University of California, San Diego**;** Anthony Gamst, University of California, San Diego**;** Florin Vaida, University of California, San Diego**;** David P. Harrington, Dana-Farber Cancer Institute

3:25 p.m. **Model Selection for Partial Spline Models—**❖Hao Zhang, North Carolina State University

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

188 CC-251 C

● ✪ Statistical Challenges in Evolutionary Biology—Topic-Contributed

IMS

Organizer(s): Vladimir N. Minin, University of California, Los Angeles

Chair(s): Marc A. Suchard, University of California, Los Angeles

2:05 p.m. **Analysis of Count Data with Phylogenetic Random Effects—**❖Cecile Ane, University of Wisconsin-Madison

2:25 p.m. **Coalescent-Based Inference of Population Dynamics with Gaussian Markov Random Field Temporal Smoothing—**❖Vladimir N. Minin, University of California, Los Angeles**;** Marc A. Suchard, University of California, Los Angeles

2:45 p.m. **A Step Toward Bar Coding Life: A New Method To Assign Genes to Pre-existing Species Groups—**❖Zaid Abdo, University of Idaho**;** Geoffre B. Golding, McMaster University

3:05 p.m. **Measures of Volatility and Valency for Serially Sampled Nucleotide Sequences—**❖John O'Brien, University of California, Los Angeles

3:25 p.m. **Phylogenies Unplugged: Consensus Trees with Wandering Taxa—**❖Benjamin Redelings, North Carolina State University

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

189 CC-251 F

● ✪ Statistics and Machine Learning in High Dimension—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Samiran Ghosh, Indiana University Purdue University Indianapolis

Chair(s): Melanie Wilson, Duke University

2:05 p.m. **Estimating Rates of Rare Events in Massive Web Applications—**❖Deepak Agarwal, Yahoo! Research

2:25 p.m. **Robust Test for Detecting a Signal in a High-Dimensional Sparse Normal Vector—**❖Junyong Park, University of Maryland, Baltimore County; Eitan Greenshtein, Statistical and Applied Mathematical Sciences Institute

2:45 p.m. **Learning Gradients and Feature Selection on Manifolds—**❖Sayan Mukherjee, Duke University

3:05 p.m. **Feature Extraction for Classification of Functional Data—**❖Bin Li, Louisiana State University; Qingzhao Yu, Louisiana State University Health Sciences Center

3:25 p.m. **Dimension Augmenting Vector Machine: A New General Classifier System for Large p Small n Problem—**❖Samiran Ghosh, Indiana University Purdue University Indianapolis; Yazhen Wang, University of Connecticut; Dipak Dey, University of Connecticut

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

190 CC-251 A

● ✪ Section on Bayesian Statistics Student Paper Competition: Network Models, Reliability, and Prediction—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Merlise A. Clyde, Duke University

Chair(s): Liansheng Zhu, Pharmaceutical Product Development, Inc

2:05 p.m. **A Bayesian Mixed Effects Model for Longitudinal Social Network Data-Student Paper Competitions—**❖Anton Westveld, Washington University in St. Louis; Peter D. Hoff, University of Washington

2:25 p.m. **Bayesian Network-Based Process Monitoring and Diagnosis in Complex Manufacturing Systems—**❖Jing Li, The University of Michigan; Jianjun Shi, The University of Michigan; Jionghua Jin, The University of Michigan

2:45 p.m. **The Dependent Poisson Race Model and Modeling Dependence in Conjoint Choice Experiments (Student Paper Competition)—**❖Shiling Ruan, The Ohio State University; Steven N. MacEachern, The Ohio State University; Thomas Otter, The Ohio State University; Angela Dean, The Ohio State University

3:05 p.m. **Probabilistic Weather Forecasting for Winter Road Maintenance—**❖Veronica J. Berrocal, University of Washington; Adrian E. Raftery, University of Washington; Tilmann Gneiting, University of Washington

3:25 p.m. **Floor Discussion**

191 CC-250 C

Synthetic Data and Other Methods for Disclosure Limitation and Confidentiality Preservation—Topic-Contributed

Section on Survey Research Methods, Social Statistics Section

Organizer(s): Michael D. Larsen, Iowa State University

Chair(s): Sam Hawala, U.S. Census Bureau

2:05 p.m. **Microdata Simulation for Confidentiality Protection Using Regression Quantiles and Hot Deck—**❖Jennifer Huckett, Iowa State University; Michael D. Larsen, Iowa State University

2:25 p.m. **Releasing Multiply Imputed, Synthetic Data Generated in Two Stages To Protect Confidentiality—**❖Joerg Drechsler, Institute for Employment Research; Jerome P. Reiter, Duke University

2:45 p.m. **Multiple Imputation Alternatives to Top-Coding for Statistical Disclosure Control—**❖Di An, University of Michigan; Roderick J. Little, University of Michigan

3:05 p.m. **Secure Logistic Regression—**❖Yuval Nardi, Carnegie Mellon University; Stephen Fienberg, Carnegie Mellon University; Aleksandra Slavkovic, The Pennsylvania State University

3:25 p.m. **Application of the Truncated Triangular and the Trapezoidal Distributions for Developing Multiplicative Noise—**❖Jay J. Kim, National Center for Health Statistics

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

192 CC-258

● Modeling Longitudinal Data in Epidemiology—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section, ENAR, Section on Health Policy Statistics, Section on Teaching Statistics in the Health Sciences

Organizer(s): Sarah Ratcliffe, University of Pennsylvania; Mary D. Sammel, University of Pennsylvania

Chair(s): Thomas R. Tenhave, University of Pennsylvania

2:05 p.m. **Computationally Efficient Estimation of Multilevel High-Dimensional Latent Variable Models—**❖Bengt Muthén, University of California, Los Angeles; Tihomir Asparouhov, Muthén & Muthén

2:25 p.m. **Interval-Censored Regression for Modeling the Effect of Labor Progression on Uterine Rupture—**❖Sarah Ratcliffe, University of Pennsylvania**;** George A. Macones, Washington University in St. Louis

2:45 p.m. **Longitudinal Latent Variable Models in Environmental Epidemiology—**❖Brisa Sanchez, University of Michigan

3:05 p.m. **Bayesian Multivariate Growth Curve Latent Class Models for Mixed Outcomes—**❖Benjamin E. Leiby, Thomas Jefferson University**;** Mary D. Sammel, University of Pennsylvania**;** Thomas R. Tenhave, University of Pennsylvania**;** Kevin G. Lynch, University of Pennsylvania

3:25 p.m. **Modeling Longitudinal Steroid Hormone Levels for Predicting Menopausal Symptoms—**❖Mary D. Sammel, University of Pennsylvania**;** Jeanne Manson, Children's Hospital of Philadelphia**;** Ellen W. Freeman, University of Pennsylvania

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

193 CC-259

Smoothing Spline Methods and Their Applications—Topic-Contributed

WNAR, Biometrics Section

Organizer(s): Li Qin, Fred Hutchinson Cancer Research Center

Chair(s): Xiaoming Sheng, University of Utah

2:05 p.m. **Nonparametric Hazard Estimation for Gap Time in Recurrent Event Data—**❖Pang Du, Virginia Polytechnic Institute and State University

2:25 p.m. **Spectral Density Estimation via State Space Modeling—**❖Li Qin, Fred Hutchinson Cancer Research Center**;** Dongfeng Li, Fred Hutchinson Cancer Research Center

2:45 p.m. **Pointwise Consistency of Smoothing Spline Estimate—**❖Ming Dai, The University of North Carolina at Charlotte**;** Wensheng Guo, University of Pennsylvania

3:05 p.m. **M-Type Smoothing Spline ANOVA for Correlated Data—**❖Anna Liu, University of Massachusetts Amherst**;** John Staudenmayer, University of Massachusetts Amherst**;** Li Qin, Fred Hutchinson Cancer Research Center

3:25 p.m. **Penalized Functional Principal Components Analysis Using a Kullback-Leibler Criterion—**❖Robert Krafty, University of Pennsylvania**;** Wensheng Guo, University of Pennsylvania

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

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

194 CC-251 E

● ✪ What Have We Learned from Results of Primary Prevention Cardiovascular Medical Device Mortality Trials?—Topic-Contributed

Biopharmaceutical Section, ENAR

Organizer(s): Gosford Sawyerr, Purdue Pharma, LP

Chair(s): Dalene Stangl, Duke University

Panelists:
- ❖ Kerry Lee, Duke University
- ❖ Laura Thompson, Food and Drug Administration
- ❖ Andrew Mugglin, The University of Minnesota
- ❖ David Breiter, Boston Scientific Corporation
- ❖ W. Jackson Hall, University of Rochester

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

195 CC-255 B

● ✪ Career Opportunities for Biostatisticians: Perspectives from Industry, Government, and Academics—Topic-Contributed

Biopharmaceutical Section, ENAR, Section on Statistical Consulting, WNAR

Organizer(s): Tammy Massie, U.S. Food and Drug Administration

Chair(s): Tristan Massie, U.S. Food and Drug Administration

Panelists:
- ❖ Tammy Massie, Food and Drug Administration
- ❖ Stacey Cofield, The University of Alabama at Birmingham
- ❖ Carol Summitt, Wyeth
- ❖ Laura Stets, U.S. Food and Drug Administration

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

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

196 CC-355 C

● ✪ Recent Advances in Microarray Data Analysis II—Contributed

Biometrics Section

Chair(s): Tian Zheng, Columbia University

2:05 p.m. **Model-Based Approach for Cancer Outlier Differential Gene Expression Detection—**❖Baolin Wu, The University of Minnesota

2:20 p.m. **Application of Discrimination Method on Combining Gene Expression Data of Kidney Transplant Patients**—❖Xiangrong Kong, Virginia Commonwealth University; Kellie J. Archer, Virginia Commonwealth University

2:35 p.m. **Selection and Validation of Normalization Methods for c-DNA Microarrays Using Within-Array Replications**—❖Yue Niu, Princeton University; Jianqing Fan, Princeton University

2:50 p.m. **Inverse Regression Estimation for Censored Data**—❖Nivedita Nadkarni, University of Wisconsin-Madison; Michael Kosorok, The University of North Carolina at Chapel Hill

3:05 p.m. **Microarray Analysis: P-Values, Filtering, and Multiple Testing Adjustments**—❖Ann Hess, Colorado State University

3:20 p.m. **Distribution-Based Classification with Application to Gene Expression Data Analysis**—❖Xuelian Wei, University of California, Los Angeles; Ker-Chau Li, University of California, Los Angeles

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

197 CC-355 D

● ✪ Mixtures Models and Their Applications—Contributed

Biometrics Section

Chair(s): Weixin Yao, The Pennsylvania State University

2:05 p.m. **Mixture or Homogeneous: Modeling Placebo Response**—❖Thaddeus Tarpey, Wright State University; Dong Yun, Wright State University; Eva Petkova, New York University

2:20 p.m. **Mis-specification Bias in Poisson Mixture Models: Gamma versus Lognormal**—❖Woollcott Smith, Temple University; Shuo Zheng, Temple University

2:35 p.m. **On Some Computational Issues in Marginal Latent Mixture Analysis**—❖Yan Yang, Arizona State University; Douglas Simpson, University of Illinois

2:50 p.m. **Parametric Mixture Model for Survival Data**—❖Ying Zhang, Wyeth; Jagbir Singh, Temple University

3:05 p.m. **Prediction by Trajectory Modeling Approach**—❖Nami Maruyama, Kitasato University; Fumiaki Takahashi, Kitasato University; Hajime Uno, Kitasato University; Masahiro Takeuchi, Kitasato University

3:20 p.m. **Mutual Information for the Mixture of Two Multivariate Distributions**—❖Walfredo Javier, Southern University-Baton Rouge; Arjun K. Gupta, Bowling Green State University

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

198 CC-255 E

● ✪ Missing Data in Clinical Trials—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Xiaodong Li, Merck & Co., Inc.

2:05 p.m. **Handling Missing Data in Long-Term Clinical Trials**—❖Wei Deng, Amylin Pharmaceuticals, Inc.; Xuesong Guan, Amylin Pharmaceuticals, Inc.; Chien-Feng Chen, Amylin Pharmaceuticals, Inc.

2:20 p.m. **Something Might Be Missed in Missing Data Analysis**—❖Xiang Guo, sanofi-aventis; Guangrui Zhu, Eisai Medical Research Inc.

2:35 p.m. **A Comparison of Imputation Methods in a Randomized Active Comparator Pain Relief Clinical Trial**—❖Adam Hamm, Rho, Inc.

2:50 p.m. **Some Remarks on Multiple Imputations in Longitudinal Data Context**—❖Mohammed K. Alam, Kendle International Inc.; Marepalli B. Rao, University of Cincinnati; Ramesh N. Amatya, Kendle International Inc.; Claudia Lara, Kendle International Inc.

3:05 p.m. **A Resampling-Based Approach To Test If a Model Provides Unbiased Parameter Estimates Under Various Missing Data Assumptions**—❖Maria M. Sanchez, Merck & Co., Inc.; Edmund Luo, Merck & Co., Inc.

3:20 p.m. **Properties of Missing Data Imputation Methods: Baseline or Worst Observation Carry Forward**—❖Jun Shao, University of Wisconsin-Madison; David Jordan, Abbott Laboratories; Yannis Jemiai, Cytel Inc.; Yili Pritchett, Abbott Laboratories

3:35 p.m. **Partial FEFI for Incomplete Tables with Covariates**—❖Shin-Soo Kang, Iowa State University; Kenneth Koehler, Iowa State University; Michael D. Larsen, Iowa State University

199 CC-255 D

● ✪ Modeling Time to-Event Data from Clinical Trials—Contributed

Biopharmaceutical Section

Chair(s): Joseph G. Pigeon, Villanova University

2:05 p.m. **Controlling for Time-Dependent Confounding Using Marginal Structural Models in the Case of a Continuous Treatment Covariate—**❖Ouhong Wang, Amgen Inc.; Trevor McMullan, Validant Consulting

2:20 p.m. **Evaluating Treatment Effect in Randomized Trials with Learning Effect: An Application to Contraceptive Device Trials—**❖Pai-Lien Chen, Family Health International

2:35 p.m. **Robust Assessment of Survival Differences Using Multiple Testing Procedures—**❖Larry Ma, Temple University; Devan V. Mehrotra, Merck & Co., Inc.; Woollcott Smith, Temple University

2:50 p.m. **An Empirical Test for Using a Cox Proportional Hazards Model with Time-Varying Hazard Ratios in the Analysis of Cardiac Events of Hypertensive Patients—**❖D. Das Purkayastha, Novartis Pharmaceuticals; Lynn Ashcraft, Novartis Pharmaceuticals

3:05 p.m. **Nonproportional Hazards in Time-to-Event Analysis—**❖Yanqiong Zhang, Merck & Co., Inc.; Amarjot Kaur, Merck & Co., Inc.

3:20 p.m. **The Impact of Proportional Hazards Assumption on the Late Onset Survival Data—**❖Guoguang Ma, Amgen Inc.; Kathy Harris, Amgen Inc.

3:35 p.m. **On Selection of Survival Models with Random Effects—**❖Yanhua Zhang, University of California, Davis

200 CC-250 EF

● ✪ Statistics for Customer Relations—Contributed

Business and Economics Statistics Section

Chair(s): Graciela Gonzalez-Farias, Center for Mathematical Research

2:05 p.m. **Scoring Customer Probability of Runoff for Retention—**❖Huaiyu Ma, GE Global Research; Deniz Senturk-Doganaksoy, GE Global Research; Kareem Aggour, GE Global Research

2:20 p.m. **Customer Profiling and Mining with Multidimensional Statistical Analysis: The Case of Retail Banking Industry—**❖Ming Xie, IBM China Research Laboratory; Wen Jun Yin, IBM China Research Laboratory; Jin Dong, IBM China Research Laboratory

2:35 p.m. **Assortment Planning Under Dynamic Customer Substitution and Cross-Selling—**❖Jin Dong, IBM China Research Laboratory; Xinxin Bai, IBM China Research Laboratory; Wen Jun Yin, IBM China Research Laboratory; Ming Xie, IBM China Research Laboratory

2:50 p.m. **Statistical Methods for Accounts Receivable Tracking and Forecasting—**❖Alejandro Veen, IBM T.J. Watson Research Center; Yasuo Amemiya, IBM T.J. Watson Research Center

3:05 p.m. **The Role of Six Sigma in Achieving Perfection—**❖Mohammad Quasem, Howard University; Daniel Owunwanne, Howard University

3:20 p.m. **Estimating Taint in a Population of Insurance Claims—**❖Andrew Ostarello, Exponent, Inc.; Duane Steffey, Exponent, Inc.

3:35 p.m. **Independence of Duplicate and Invalid Signatures on a Petition—**❖Mary Whiteside, University of Texas at Arlington; Mark Eakin, University of Texas at Arlington

201 CC-355 A

● Analysis of High-Dimensional Data—Contributed

ENAR, Section on Nonparametric Statistics, Biometrics Section

Chair(s): Hemant Tiwari, The University of Alabama at Birmingham

2:05 p.m. **Modeling Progression of Cerebrovascular Disease with Longitudinal MRI Data—**❖Qian Weng, University of California, Davis

2:20 p.m. **Quantile Rank Score Tests for Longitudinal Data—**❖Huixia Wang, North Carolina State University

2:35 p.m. **Imaging Biomarkers and Sample Size Estimation—**❖Chunming Li, Pfizer Inc.

2:50 p.m. **Use of Satterthwaite Degree of Freedom in t-Statistic for Microarray Experiments with Fewer Replications—**❖Yu Ding, Merck & Co., Inc.; Damaraju Raghavarao, Temple University

3:05 p.m. **Wavelet-Based Modeling of Clinical Outcomes Using Diffusion Tensor Image Data—**❖William Prucka, The University of Alabama at Birmingham; Christopher S. Coffey, The University of Alabama at Birmingham; Gary Cutter, The University of Alabama at Birmingham; Daniel S. Reich, The Johns Hopkins University

3:20 p.m. **Local False Discovery Rate Estimation Based on Bootstrap Null Distribution of Control Group Samples—**❖Aixiang Jiang, Vanderbilt University**;** Yu Shyr, Vanderbilt University

3:35 p.m. **Longitudinal Image Analysis of Change in Tumor/Brain Vascular Permeability Induced by Radiation—**❖Xiaoxi Zhang, University of Michigan**;** Timothy D. Johnson, University of Michigan**;** Roderick J. Little, University of Michigan

202 CC-254 B

● Bayesian Analysis in Clinical Trials—Contributed

Section on Bayesian Statistical Science, Biopharmaceutical Section

Chair(s): Yingfu Li, University of Houston-Clear Lake

2:05 p.m. **Assessment of Bayesian Estimates of Biomarker's Surrogacy for a Time-to-Event Clinical Endpoint in a Single Trial—**❖Qian Shi, The University of Iowa**;** Mary K. Cowles, The University of Iowa

2:20 p.m. **A Bayesian Model for Sensitivity Analysis on Intent-to-Treat Population—**❖Niko Kacirorti, University of Michigan

2:35 p.m. **Bayesian Subgroup Analysis in Clinical Trials—**❖Claudia Pedroza, The University of Texas Health Science Center at Houston

2:50 p.m. **A New Latent Cure Rate Marker Model for Survival Data—**❖Sung Duk Kim, University of Connecticut**;** Yingmei Xi, University of Connecticut**;** Ming-Hui Chen, University of Connecticut

3:05 p.m. **Bayesian Analysis of Incomplete Data in Crossover Trials—**❖Sanjib Basu, Northern Illinois University

3:20 p.m. **Propensity Score Matching for Causal Inference When Multiply Imputing Missing Covariate Data—**❖Robin Mitra, Duke University**;** Jerome P. Reiter, Duke University

3:35 p.m. **Flexible Modeling of the Hazard Function for Breast Cancer Recurrence—**Vanja Dukic, The University of Chicago**;** ❖James Dignam, The University of Chicago

203 CC-155 E

● ✪ Topics in Reliability—Contributed

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

Chair(s): EunJoo Lee, Advance Micro Device

2:05 p.m. **On Risk Sets and Risk Factors—**❖William D. Heavlin, Google**;** Judith Koslov, Sun Microsystems, Inc.

2:20 p.m. **Fuzzy Estimation of Parameters in Statistical Models—**❖Ranee Thiagarajah, Illinois State University

2:35 p.m. **Accelerated Destructive Degradation Test Planning—**❖Ying Shi, Iowa State University**;** Luis Escobar, Louisiana State University**;** William Meeker, Iowa State University

2:50 p.m. **A Comparison of Maximum Likelihood Estimation and Median Rank Regression for Weibull Estimation—**❖Ulrike Genschel, Iowa State University**;** William Meeker, Iowa State University

3:05 p.m. **Availability and Cost Monitoring in Datacenters Using Mean Cumulative Functions—**❖David Trindade, Sun Microsystems, Inc.**;** Swami Nathan, Sun Microsystems, Inc.

3:20 p.m. **Estimation from Aggregate Data—**❖Marc Fredette, HEC Montreal

3:35 p.m. **Comparison Sequential Testing for Reliability: Optimal Truncation of Short Tests—**❖Yefim H. Michlin, Technion**;** Genady Grabarnik, IBM T.J. Watson Research Center**;** Elena Leshchenko, Technion

204 CC-155 C

Design and Analysis of Experiments and Other Statistical Methods—Contributed

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

Chair(s): William Brenneman, Procter & Gamble

2:05 p.m. **Design and Analysis of Material Characterization Experiments with Few Runs per Day—**❖William Guthrie, National Institute of Standards and Technology**;** Kenneth W. Pratt, National Institute of Standards and Technology

2:20 p.m. **Analysis of Optimization Experiments—**❖James Delaney, Carnegie Mellon University**;** Roshan Joseph, Georgia Institute of Technology

2:35 p.m. **Using Minimal Dependent Subsets To Evaluate Supersaturated Designs—**❖Arden Miller, University of Auckland

2:50 p.m. **Randomization of Factors in Multiphase Experiments—**❖Theodore Bailey, Iowa State University

3:05 p.m. **Change Point Detection Using Nonparametric Estimation of Profiles in Small Sample Setting—**❖Kathryn Prewitt, Arizona State University**;** Shilpa Gupta, Arizona State University

3:20 p.m. **A Comparison of Model Combining Methods—** ❖Lihua Chen, The University of Toledo; Panayotis Giannakouros, University of Missouri-Kansas City

3:35 p.m. **Within-Sample Prediction of Future Failure Times Based on Type-II Censored Samples from the Birnbaum-Saunders Distribution—**❖Kevin S. McCarter, Louisiana State University

205 CC-155 A

Mixture Models and Expectation Maximization—Contributed

Section on Statistical Computing, Business and Economics Statistics Section, IMS, Section on Statistical Graphics

Chair(s): David Marchette, Naval Surface Warfare Center

2:05 p.m. **Nonparametric Transformation of the Data to Obtain Bias Reduction in Kernel Estimation of the Distribution Function of Nonstandard Mixtures—**❖Ennis McCune, Stephen F. Austin State University; Sandra L. McCune, Stephen F. Austin State University

2:20 p.m. **Fitting Mixture Distributions Using Generalized Lambda Distributions (GLDs): Examples, Comparisons with Normal Mixtures, and Computational Considerations—**❖Wei Ning, Bowling Green State University; E. J. Dudewicz, Syracuse University

2:35 p.m. **Acceleration of the EM Reconstruction Algorithm for PET Images Using Squared Iterative Methods—** ❖Constantine E. Frangakis, The Johns Hopkins University; Ravi Varadhan, The Johns Hopkins University; Christophe Roland, University of Science and Technology at Lille

2:50 p.m. **Improving the Efficiency of the Monte Carlo EM Algorithm Using Squared Iterative Methods—** ❖Ravi Varadhan, The Johns Hopkins University; Brian S. Caffo, Johns Hopkins Bloomberg School of Public Health; Wolfgang Jank, University of Maryland

3:05 p.m. **Generalized t-Copula and Its Application on Biometric—**❖Wenmei Huang, Michigan State University; Sarat Dass, Michigan State University

3:20 p.m. **Comparison of the Six Sigma and Lean Sigma on the IT Management Processes—**❖Genady Grabarnik, IBM T.J. Watson Research Center; Larisa Shwartz, IBM T.J. Watson Research Center

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

206 CC-260

Online Evaluations, Online Discussions, Podcasts, and Electronic Assessment Systems—Contributed

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

Chair(s): Liam M. O'Brien, Colby College

2:05 p.m. **From Paper-and-Ink to Online Evaluation: A New Computer Maple TA–Based—**❖Li Wang, Student; Yulia R. Gel, University of Waterloo; Sean Scott, University of Waterloo

2:20 p.m. **Group Discussions in an Online Statistics Course: The Role of the Instructor—**❖Michelle Everson, The University of Minnesota

2:35 p.m. **The Benefits of Using a Course Disk To Aid in the Instruction of Statistics Courses—**❖Jamis Perrett, University of Northern Colorado

2:50 p.m. **Electronic Assessment Systems for Introductory Statistics Courses I—**❖John McKenzie, Babson College

3:05 p.m. **Electronic Assessment Systems for Introductory Statistics Courses II—**❖Patricia Humphrey, Georgia Southern University

3:20 p.m. **Electronic Assessment Systems for Introductory Statistics Courses III—**❖William Rybolt, Babson College

3:35 p.m. **Use of Podcast Technology in Statistics Education—** ❖Joni Nunnery, Louisiana State University

207 CC-250 B

Measurement Error in Survey Data Collection—Contributed

Section on Survey Research Methods, Social Statistics Section

Chair(s): Mary Ann Guadagno, National Institutes of Health

2:05 p.m. **Modeling Rotation Group Bias and Survey Errors in the Labor Force Survey of Statistics Netherlands—** ❖Jan Van den Brakel, Statistics Netherlands; Sabine Krieg, Statistics Netherlands

2:20 p.m. **Face-to-Face Interviews with Children—**❖Marek Fuchs, University of Kassel

2:35 p.m. **Survey Design for Studies of Measurement Error in Physical Activity Assessments—**❖Nicholas Beyler, Iowa State University; Sarah M. Nusser, Iowa State University; Wayne Fuller, Iowa State University; Alicia Carriquiry, Iowa State University

2:50 p.m. **Evaluating the Assumption of Uncorrelated Error Terms in a Mixed-Mode Study with Validation Data—**❖Courtney Kennedy, University of Michigan**;** Stanley Presser, University of Maryland

3:05 p.m. **Measurement Error in Calibration: An Application to the National Resources Inventory—**❖Emily Berg, Iowa State University**;** Jean Opsomer, Iowa State University**;** Wayne Fuller, Iowa State University

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

208 CC-250 A

● Web and Telephone Survey Methods—Contributed

Section on Survey Research Methods, Social Statistics Section

Chair(s): Stephen Ash, U.S. Census Bureau

2:05 p.m. **A Comparison Between a Traditional RDD Survey and a Telephone Survey with Cell-Phone-Only Populations—**❖Sunghee Lee, University of California, Los Angeles**;** David Grant, University of California, Los Angeles**;** J. Michael Brick, Westat**;** Sherm Edwards, Westat

2:20 p.m. **A New Application of Adaptive Web Sampling designs—**❖Hong Xu, The Pennsylvania State University**;** Steve K. Thompson, Simon Fraser University**;** James L. Rosenberger, The Pennsylvania State University

2:35 p.m. **Time Series Analysis of Census Internet Response—**❖Fred Highland, Lockheed Martin Corporation

2:50 p.m. **Assessing the Applicability of Self-Anchoring Scales in Web Surveys—**❖Frederik Van Acker, Vrije Universiteit Brussel**;** Peter Theuns, Vrije Universiteit Brussel

3:05 p.m. **Comparing Web Survey Samples of Schizophrenic and Bipolar Patients with Concurrent RDD and In-Person Samples—**❖LinChiat Chang, Opinion Research Corporation**;** Channing Stave, Pfizer Inc.**;** Corinne O'Brien, Pfizer Inc.**;** Fred Rappard, Pfizer Inc.**;** Jill Glathar, Opinion Research Corporation**;** Joseph Cronin, Opinion Research Corporation

3:20 p.m. **Beyond Demographics: Are 'Webographic' Questions Useful for Reducing the Selection Bias in Web Surveys?—**❖Matthias Schonlau, RAND Corporation**;** Arthur VanSoest, RAND Corporation**;** Arie Kapteyn, RAND Corporation

3:35 p.m. **When Standard Regression Techniques Fail: The Role of Propensity Score Methods—**❖Michael Posner, Villanova University**;** Arlene Ash, Boston University

Contributed Poster Presentations 2:00 p.m.–3:50 p.m.

209 CC-Exhibit Hall D

Contributed Poster Presentations—Contributed

Section on Statistics in Epidemiology, Section on Government Statistics, Section on Health Policy Statistics, Section on Statistics and the Environment, Section on Survey Research Methods, Social Statistics Section, Section on Statistical Computing

Chair(s): Dongseok Choi, Oregon Health & Science University

Applications and case studies

61 **Modeling Tilletia Indica Infection on Wheat Using Nonlinear Mixed Models with a Sharp Turning Point—**❖Zhongwen Tang, Kansas State University**;** Shie-Shien Yang, Kansas State University**;** Karen Garrett, Kansas State University**;** I. Sharma, Punjab Agriculture University**;** R. L. Bowden, U.S. Department of Agriculture

62 **Waiting Time Distributions of Sleep—**❖Anna Mnatsakanova, National Institute for Occupational Safety and Health**;** James Slaven, National Institute for Occupational Safety and Health**;** John M. Violanti, State University of New York at Buffalo**;** Bryan J. Vila, Washington State University**;** Cecil M. Burchfiel, National Institute for Occupational Safety and Health**;** Michael Andrew, Centers for Disease Control and Prevention

Categorical, multivariate analysis

63 **A Goodness-of-Fit Test of Logistic Regression Model—**❖Ying Liu, Kansas State University

64 **Categorization of Sleep Patterns with Derived Actigraph Variables—**❖James Slaven, National Institute for Occupational Safety and Health**;** Michael Andrew, Centers for Disease Control and Prevention**;** John M. Violanti, State University of New York at Buffalo**;** Bryan J. Vila, Washington State University**;** Cecil M. Burchfiel, National Institute for Occupational Safety and Health

Data mining and knowledge discovery, machine learning

65 **Logistic Regression, Classification Tree, and Boosted Regression: A Comparison of Models in the Prediction of Pregnancy-Induced Hypertension—**❖Paul Kolm, Christiana Care Health System**;** Deborah Ehrenthal,

Christiana Care Health System; Claudine Jurkovitz, Christiana Care Health System; Matthew Hoffman, Christiana Care Health System; James Bowen, Christiana Care Health System

66 **Use of Data Mining To Determine Variable Significance and Inter-relationships in Models**—❖William K. Sieber, National Institute for Occupational Safety and Health

67 **An Empirical Evaluation of the Random Forests Classifier Models for Variable Selection in a Large-Scale Lung Cancer Case Control Study**—❖Qing Zhang, The University of Texas M. D. Anderson Cancer Center; Christopher I. Amos, The University of Texas M. D. Anderson Cancer Center

68 **S-PLUS and R Package for Least Angle Regression**—❖Tim Hesterberg, Insightful Corporation

Government statistics

69 **Model and Survey Performance Measurement by the RSESP**—❖James Knaub, Energy Information Administration

Health policy, epidemiology, public health

70 **Mixture Model Analysis of Age-Appropriate and Delayed Vaccination**—❖Andrew Baughman, Centers for Disease Control and Prevention; Charles E. Rose, Centers for Disease Control and Prevention; Kate M. Shaw, Centers for Disease Control and Prevention; Gustavo H. Dayan, Centers for Disease Control and Prevention

71 **Applying Propensity Score Calibration To Reduce Unmeasured Confounding Bias**—❖Rachel Bittner, University of Washington; Jennifer Nelson, Group Health Center for Health Studies; Michael Jackson, Group Health Center for Health Studies; Noel Weiss, University of Washington; Lisa Jackson, Group Health Center for Health Studies

72 **A Case Study of Time Scale for Use in Cox's Proportional Hazard Model**—❖Qimei He, Pacific Health Research Institute; Bradley Willcox, Pacific Health Research Institute; David J. Curb, Pacific Health Research Institute

73 **Application of the Pattern-Mixture Latent Trajectory Model in an Epidemiological Study**—❖Hiroko Dodge, Oregon State University; Changyu Shen, Indiana University; Mary Ganguli, University of Pittsburgh

74 **Parametric Time Dependent SIR Model**—❖Di Shi, Riverdale Country School; Peter Gross, Riverdale Country School

75 **The Association Between Anticyclic Citrullinated Peptide Antibodies and Risk of Rheumatoid Arthritis**—❖Lori B. Chibnik, Brigham and Women's Hospital; Lisa A. Mandl, Hospital for Special Surgery; Karen H. Costenbader, Brigham and Women's Hospital; Peter Schur, Brigham and Women's Hospital; Elizabeth W. Karlson, Brigham and Women's Hospital

76 **Monte Carlo Sensitivity Analysis of Smoking as an Unmeasured Confounder in an Investigation of the Association Between Occupation and Lung Cancer Mortality**—❖Jia Li, Constella Group, LLC; Toni Alterman, National Institute for Occupational Safety and Health

77 **A New Measure of Excess Longevity in Families**—❖Kenneth Boucher, Huntsman Cancer Institute; Richard A. Kerber, Huntsman Cancer Institute

78 **A Study on the Effect of Preferred Drug Lists in Medicaid on the Overall Medical Expense**—❖Joseph Richardson, Auburn University; Mark Carpenter, Auburn University; Victoria Jordan, Auburn University

79 **Evaluating SEER-Medicare Linked Database Completeness for Oral and Pharyngeal Cancer**—Jonathan Mahnken, The University of Kansas Medical Center; ❖John Keighley, The University of Kansas Medical Center; Matthew Mayo, The University of Kansas Medical Center

80 **Cost-Effectiveness Analysis in Breast Cancer Early Detection**—❖Charlotte H. Ahern, Rice University; Yu Shen, The University of Texas M. D. Anderson Cancer Center

81 **What Do We Know About the Effects of Substance Use on Labor Productivity? A Survey of Results and Related Methodological Issues**—❖Richard Bryant, University of Missouri-Rolla; V. A. Samaranayake, University of Missouri-Rolla

82 **School Social Support and Adolescent Depressiveness: Multilevel Analysis of Finnish School Health Promotion Survey**—❖Noora Ellonen, University of Tampere

Incomplete data analysis, imputation methods

83 **Bayesian Multiple Imputation and Maximum Likelihood Methods for Missing Data**—❖Min Sun, Sam Houston State University; Ferry Butar Butar, Sam Houston State University

84 **Imputation for Missing Physiological Measurement Data: Simulations and Applications**—❖Matt Jans, University of Michigan; Steven Heeringa, Institute for Social Research

85 **A Comparison of Weighting Adjustment and Multiple Imputation Methods To Correct for Nonresponse Bias in a Longitudinal Group-Randomized Clinical Trial for Depression**—❖Lingqi Tang, University of California, Los Angeles; Naihua Duan, University of California, Los Angeles; Ruth Klap, University of California, Los Angeles; Thomas Belin, University of California, Los Angeles

Linear models, GLMs, parametric methods

86 **Comparison of Modeling Approaches to Deriving Normative Values of Bone Mineral Density from NHANES III**—❖Qing Wu, Tulane University; John Lefante, Tulane University; Jeanette Magnus, Tulane University; Janet Rice, Tulane University

Longitudinal data, repeated measurements, and meta-analysis

87 **Assessing the Potential Impact of Missing Data in a Longitudinal Study with a Continuous Outcome**—❖Owen Devine, Centers for Disease Control and Prevention; Jorge Rosenthall, Centers for Disease Control and Prevention; Nyasha Skerrette, Emory University

88 **Area Under the Curve and Other Summary Indicators of Repeated Waking Cortisol Measurements**—❖Desta Fekedulegn, National Institute for Occupational Safety and Health; Michael Andrew, Centers for Disease Control and Prevention; Cecil M. Burchfiel, National Institute for Occupational Safety and Health; John M. Violanti, 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; Diane B. Miller, National Institute for Occupational Safety and Health

89 **On the Meta-Analysis of Incomplete Primary Study Data**—❖Todd Bodner, Portland State University

Social and behavioral science

90 **Response and Nonresponse Pattern Analysis in Survey Research**—❖Chong Ho Yu, Arizona State University; Samuel DiGangi, Arizona State University; Sandra Andrews, Arizona State University; Angel Jannasch-Pennell, Arizona State University

91 **Standard Error Estimation in Latent Variable Model**—❖Yan Wang, Southern Methodist University; S. Lynne Stokes, Southern Methodist University; Andreas Oranje, Educational Testing Service

92 **Nonlinear Random Coefficients Regression for Estimating an Interaction Term**—Reid Landes, University of Arkansas for Medical Sciences; ❖Jeffrey A. Pitcock, University of Arkansas for Medical Sciences

93 **Relationships Between Students' Science Achievement, Attitudes Toward Science, and Learning Through Inquiry**—❖Man Hung, University of Utah

94 **Evaluating a Multilevel Item Response Theory Model**—❖Thomas Schmitt, University of Wisconsin-Milwaukee; Cindy M. Walker, University of Wisconsin-Milwaukee

95 **Globalization and Chinese City System Restructuring**—❖Xiulian Ma, The University of Utah

Invited Sessions 4:00 p.m.–5:50 p.m.

210 CC-Ballrooms E-J

ASA President's Invited Address—Invited

ASA, IMS, ENAR, WNAR, SSC

Organizer(s): Mary Ellen Bock, Purdue University

Chair(s): Mary Ellen Bock, Purdue University

4:05 p.m. **Regularization Methods in Statistical Model-Building: Statisticians, Computer Scientists, Classification, and Machine Learning**—❖Grace Wahba, University of Wisconsin-Madison

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

Invited Sessions 8:00 p.m.–9:30 p.m.

211 CC-Ballroom B

IMS Presidential Address—Invited

IMS

Organizer(s): Thomas Kurtz, University of Wisconsin-Madison

Chair(s): Thomas Kurtz, University of Wisconsin-Madison

8:00 p.m. **Presentation of Awards**

8:30 p.m. **Open Access to Professional Information**—❖Jim Pitman, University of California, Berkeley

9:15 p.m. **Floor Discussion**