



BALTIMORE
JSM 2017
JULY 29–AUGUST 3

Conference Registration Guide

The largest annual gathering
of **statisticians** and **data scientists**
in the world!

JOIN US!

Register today at www.amstat.org/jsmregistration

11 national and international statistical societies

More than 6,000 attendees from 50+ countries

1,000+ student attendees

More than 600 technical sessions

75+ employers hiring for more than 200 positions

80+ exhibitors



**JSM WILL BE HELD AT
Baltimore Convention Center
One West Pratt Street
Baltimore, MD 21201**

WELCOME

With more than 3,000 individual presentations arranged into approximately **204 invited sessions, 300 contributed sessions, and 500 poster and speed poster presentations**, the 2017 Joint Statistical Meetings will be one of the largest statistical events in the world. It will also be one of the broadest, with topics ranging from statistical applications in numerous industries to new developments in statistical methodologies and theory. It will also include **presentations about some of the newer and expanding boundaries of statistics, such as analytics and data science.**

JSM offers a unique opportunity for **statisticians** in **academia**, **industry**, and **government** to exchange ideas and explore opportunities for collaboration, as well as for beginning statisticians (including current students) to learn from and meet senior members of the profession.



JSM HIGHLIGHTS

Meet, mingle with, and listen to such well-known statisticians as:

James Berger, Duke University
Lawrence Brown, University of Pennsylvania
Emmanuel Candes, Stanford University
David Dunson, Duke University
Brad Efron, Stanford University
Jianqing Fan, Princeton University
Edward George, Carnegie Mellon University
Trevor Hastie, Stanford University
Nicholas Jewell, University of California, Berkeley
Michael Jordan, University of California, Berkeley
Xiao-Li Meng, Harvard University
Susan Murphy, University of Michigan
Sally Morton, Virginia Tech
Hilary Parker, Stitch Fix
Adrian Raftery, University of Washington
James Robins, Harvard University
Hadley Wickham, Rice University / RStudio
Larry Wasserman, Carnegie Mellon University
Bin Yu, University of California, Berkeley



Hadley Wickham, **Dianne Cook**, and **Heike Hoffman** accept the ASA-Wiley SAM Best Paper Award from 2016 ASA President **Jessica Utts**.



Sally Morton gives a course on leadership at JSM 2016 in Chicago, Illinois.



Follow us on Twitter
@AmstatNews
Use #JSM2017

SPECIAL EVENTS

Sunday

**First-Time Attendee Orientation
and Reception**
12:30 p.m. – 2:00 p.m.

**ASA Awards Celebration
and Editor Appreciation**
7:30 p.m. – 8:30 p.m.

**JSM Opening Mixer
and Invited Poster Session**
8:30 p.m. – 10:30 p.m.

Monday

ASA President's Invited Address
4:00 p.m. – 5:50 p.m.

JSM Student Mixer
6:00 p.m. – 7:30 p.m.

**Korean International Statistical Society
Annual Meeting**
6:00 p.m. – 7:30 p.m.

**International Indian Statistical Association
General Body Meeting and Reception**
6:00 p.m. – 8:00 p.m.

Tuesday

Statistical Society of Canada Reception
5:30 p.m. – 7:00 p.m.

**ASA President's Address and Founders
& Fellows Recognition**
8:00 p.m. – 9:30 p.m.

JSM Dance Party
9:30 p.m. – Midnight

Wednesday

**International Chinese Statistical Association
Annual Members Meeting**
6:00 p.m. – 8:00 p.m.

DATA ART SHOW IS BACK IN 2017!

Explore the "art" in data art with the JSM exhibit featuring data artists. Located inside the exhibit hall, this feature will explore the relationship between data and art.

STUDENT BENEFITS AND OPPORTUNITIES

- ⚙ Reduced JSM Registration Fees
- ⚙ Reduced Professional Development Fees
- ⚙ Networking with Renowned Statisticians
- ⚙ Membership in the ASA for \$18
- ⚙ Reduced Career Service Fee
- ⚙ State-of-the-Art Exhibit Hall
- ⚙ Free Student Mixer
- ⚙ Technical Presentations



Darius McDaniel, Michael Thomas, and Jemar Bather attend the student mixer at JSM 2016 in Chicago.



SPEED SESSIONS

Be sure to catch a speed session! Each will consist of 20 oral presentations of approximately four minutes, followed by a poster session. All poster presentations will include the use of electronic poster boards.

Speed session topics for 2017 include the following:

Data Challenge	Sports and Business	Statistical Education
Bayesian Methods Student Awards	Biometrics	Reliable Statistical Learning and Data Science
Real Statistical Learning and Data Science	Statistics in Epidemiology	Section on Bayesian Statistical Science
Environmental Statistics	Biopharmaceutical Statistics	Complex Statistical Learning and Data Science
Nonparametrics and Imaging	Computing, Graphics, and Programming Statistics	Statistics in Epidemiology, Genomics, and Genetics
Government Statistics, Health Policy, and Marketing	Biopharmaceutical Statistics, Medical Devices, and Mental Health	Survey Research Methods

INTRODUCTORY OVERVIEW LECTURES

The popular Introductory Overview Lectures (IOLs) will return in 2017, with the following four sessions scheduled:

Computer Age Statistical Inference, given by Brad Efron and Trevor Hastie of Stanford University

Network Data, Modeling, Analysis, and Applications, given by Eric Kolaczyk of Boston University, Harry Crane of Rutgers University, and George Michailidis of the University of Florida

Data Science: A Collaboration of Statistics and Computer Science, given by Lise Getoor of the University of California, Santa Cruz

Quantile Regression, given by Roger Koenker of the University of Illinois at Urbana-Champaign and Xuming He of the University of Michigan



Follow us on Twitter
@AmstatNews Use
#JSM2017

EXHIBITORS

JSM exhibitors provide you the opportunity to observe and learn about state-of-the-art products and services related to the statistical industry. Check out the companies already planning to join us in Baltimore:

American Statistical Association	Minitab
Addinsoft XLSTAT	National Center for Education Statistics
Advanced Clinical	National Security Agency
Apex Life Sciences	NCSS
Aptech Systems, Inc.	Oxford University Press
ASA Store	Penfield Search Partners
ASA-SIAM	Project Euclid
Berry Consultants	RStudio
Bureau of Economic Analysis	Sage Publishing
Cambridge University Press	Salford Systems
Clindata Insight Inc.	SAS Books
Course.Work	SAS Education Practice
CRC Press, Taylor & Francis Group	SAS R&D
Cytel Inc.	SIAM
Experis Business Analytics	Springer
FDA CDER Office of Biostatistics	StataCorp LP
Frontline Systems Inc.	STAT-HAWKERS
GCE Solutions	Statistical Society of Canada (SSC)
Green Key Resources	Statistics.com Institute for Statistics Education
IBM	Takeda Pharmaceuticals
Institute of Mathematical Statistics (IMS)	The Lotus Group LLC
JMP a software of SAS	U.S. Census Bureau
JSM 2018 — Vancouver, Canada	Westat
Liberty Mutual Insurance	Wiley
Mathematica Policy Research	Wolfram

EXPO HOURS

July 30

1:00 p.m. – 6:00 p.m.

8:30 p.m. – 10:30 p.m.
(Opening Mixer)

July 31

9:00 a.m. – 5:30 p.m.

August 1

9:00 a.m. – 5:30 p.m.

August 2

9:00 a.m. – 2:30 p.m.



FEATURED SPEAKERS



ASA President's Invited Address

Jo Craven McGinty

The Wall Street Journal

Monday, July 31, 4:00 p.m.



ASA President's Address and Founders & Fellows Recognition

Barry D. Nussbaum

"Statistics: Essential Now More Than Ever (Or, Why Uber Should Be in the Driver's Seat for Cars, Not for Data Analysis)"

Tuesday, August 1, 8:00 p.m.

ADDITIONAL LECTURES



IMS Presidential Address and Awards Ceremony

Jon A. Wellner

University of Washington

"The IMS at 82: Past, Present, and Future"

Monday, July 31, 8:00 p.m.



IMS Medallion Lecture I

Edoardo M. Airoldi

Harvard University

"Design and Analysis of Randomized Experiments on Networks"

Monday, July 31, 8:30 a.m.



IMS Medallion Lecture IV

Mark Girolami

Imperial College London

"Probabilistic Numerical Computation: A Role for Statisticians in Numerical Analysis?"

Tuesday, August 1, 2:00 p.m.



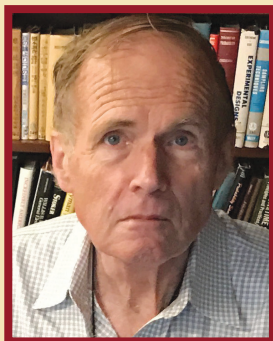
IMS Medallion Lecture V

Judith N. Rousseau

Université Paris Dauphine

"On the Semiparametric Bernstein-Von Mises Theorem in Regular and Nonregular Models"

Wednesday, August 2, 8:30 a.m.



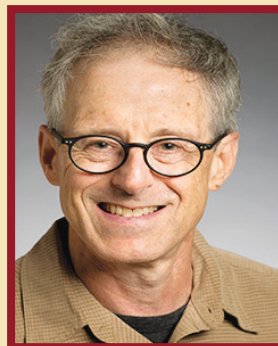
ASA Deming Lecture

Fritz Scheuren

NORC at the University of Chicago

"A Rake's Progress Revisited"

Tuesday, August 1, 4:00 p.m.



COPSS Awards and Fisher Lecture

Robert E. Kass

Carnegie Mellon University

"The Importance of Statistics: Lessons from the Brain Sciences"

Wednesday, August 2, 4:00 p.m.



IMS Medallion Lecture II

Emery N. Brown

Massachusetts Institute of Technology

"State-Space Modeling of Dynamics Processes in Neuroscience"

Monday, July 31, 2:00 p.m.



IMS Medallion Lecture III

Subhashis Ghoshal

North Carolina State University

"Coverage of Nonparametric Credible Sets"

Tuesday, August 1, 8:30 a.m.



Blackwell Lecture

Martin Wainwright

EECS and Statistics, University of California, Berkeley

"Information-Theoretic Methods in Statistics: From Privacy to Optimization"

Monday, July 31, 10:30 a.m.



WALD LECTURES

Emmanuel J. Candes

Stanford University

Wald I — "What's Happening in Selective Inference I?"

Tuesday, August 1, 4:00 p.m.

Wald II — "What's Happening in Selective Inference II?"

Wednesday, August 2, 10:30 a.m.

Wald III — "What's Happening in Selective Inference III?"

Thursday, August 3, 8:30 a.m.



What do you think of when you think of Baltimore? Join us for featured events throughout the week giving you a little taste of the city. Check out the schedule and stop by Spotlight to see more!

Sunday, July 30

1:00 p.m.

Spotlight Baltimore Kick-Off

Swing by and kick-off JSM with a taste of some Charm City delights. Enjoy sample sizes of crab cakes, pit beef, and more while they last!

3:30 p.m.

Baltimore's Berger Cookies

Made from vanilla shortbread covered in a fudge ganache, Berger cookies were originally brought from Germany to Baltimore by George and Henry Berger in 1835. Enjoy samples (while supplies last) and mingle with other attendees.

Monday, July 31

9:00 a.m.

Baltimore Insider Tips

Think you know Charm City? Whether you have been to Baltimore many times and want

to discover something new or you need a rundown for your first time in the city, Visit Baltimore will be around to guide you.

10:00 a.m.

JSM Coffee House

Refresh with a cup of coffee or tea.

11:00 a.m. - 3:00 p.m.

JSM Photo Booth

Come and create memories with your friends using fun props.

1:30 p.m.

Popcorn Break, sponsored by XLSTAT

Swing by and grab a little snack. Feel like spicing things up? Try adding Old Bay or Truffle Salt!

3:30 p.m.

Baltimore Microbrew Tasting

Stop by to taste a variety of Baltimore Heavy Seas microbrews (while supplies last).

Tuesday, August 1

10:00 a.m.

Get Your JSM Energy Fix

Come check out this healthy alternative to a coffee break. Power up with smoothies, energy bars, and make-your-own trail mix.

1:30 p.m.

Popcorn Break, sponsored by XLSTAT

Swing by and grab a little snack. Feel like spicing things up? Try adding Old Bay or Truffle Salt!

3:30 p.m.

Experience Maryland Wines

Don't miss this chance to taste local area wines. Samples from Sweet Cakes, Boordy Vineyards, and Linganore Winery (while supplies last).

Wednesday, August 2

10:00 a.m.

JSM Coffee House

Refresh with a cup of coffee or tea.

Check it out!
Spotlight Baltimore takes place daily in the JSM EXPO.

Interested in giving back to the community while in Baltimore? There are two ways to do so:

- Drop off donations (school supplies such as pencils, rulers, crayons, and paper) in the donation boxes at the ASA Booth in the EXPO. Supplies will be passed out to schools in the Baltimore area.
- Connect with other JSM attendees while making blankets (no sewing involved) to be donated to Project Linus. Just drop by Spotlight Monday through Wednesday between 11:30 a.m. and 1:00 p.m. to participate.

IMPACT BALTIMORE



Evercita Eugenio, left, from the University of Notre Dame, makes blankets for Project Linus—a non-profit children's support group—at the Impact Chicago station at JSM 2016.

JSM ADD-ONS

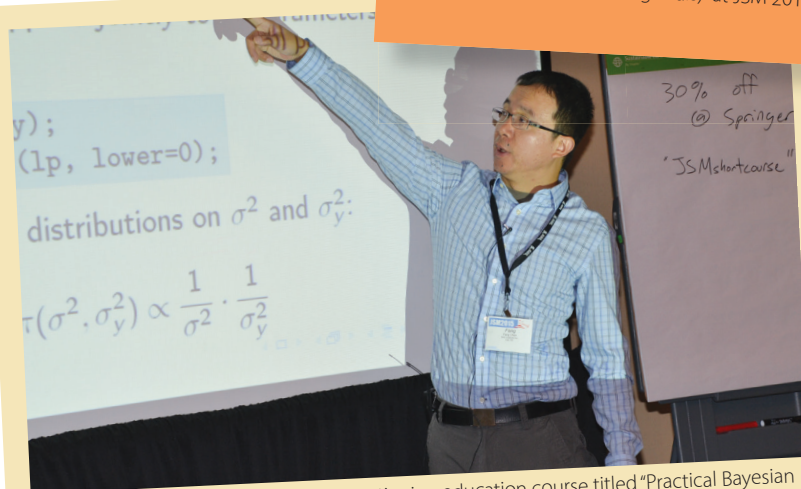
In addition to the 42 parallel sessions taking place during most of the meetings, there are other activities you can add to your program for a fee: **Professional Development courses and workshops, roundtable discussions, and the Career Service.** In short, we expect you to be very busy. See you in Baltimore!



Mia Stephens gives a continuing education course titled "Interactive Model Building in JMP Pro" at JSM 2015 in Seattle, Washington.



Lie Nie (center) of the FDA leads a roundtable discussion "Design for Dose-Finding Trials (Phase I/II or Post-Marketing Trials)" at JSM 2016 in Chicago, Illinois.



Fang Chen, SAS Institute, presents a continuing education course titled "Practical Bayesian Computation" at JSM 2015 in Seattle, Washington.

CAREER SERVICE

This is not your typical career fair! Explore opportunities by interviewing with top statistical employers, including those from industry, government, and academic organizations.

Proactively **search positions** and **contact employers** of interest to you through our online messaging service. Employers will arrange interviews with you directly. All interviews take place in our onsite Career Service center.

Applicant registration includes ...

- ⚓ Access to the Online Employer Search, including hundreds of job postings
- ⚓ Access to the online Career Service Message Center, allowing you to contact employers in advance
- ⚓ Access to the Career Service for onsite interviews

Fees	
ASA Student Member	\$75
Student Nonmember	\$125
ASA Member	\$150
Nonmember	\$225

Want to participate?

Add your Career Service applicant registration when you register for JSM.

PAST EMPLOYERS

AbbVie	KPMG
Amazon	National Institute of Standards and Technology
Amgen	National Security Agency
Bank of America	Novartis
Biogen Idec	Pacific Northwest National Laboratory
Boehringer Ingelheim Pharmaceuticals	Sandia National Laboratories
Capital One	SAS Institute
East China Normal University	Seattle Genetics
Eli Lilly and Company	StataCorp
Emmes	Uber
FDA	University of Florida
Fred Hutch	University of Mississippi Medical Center
Genentech	U.S. Census Bureau
Gilead	W.L. Gore
Incyte Corporation	Walt Disney

Interested in recruiting at JSM? Join the 70+ organizations hiring in Baltimore. Check out the Recruiters tab at www.amstat.org/jsmsponsors!

SPEAKERS WITH LUNCH AND A.M. AND P.M. ROUNDTABLE DISCUSSIONS

A.M. and P.M. Roundtable Discussions

For interesting discussion and a networking event that doesn't bust your wallet, register for an A.M. roundtable discussion, offered Monday through Wednesday from 7:00 a.m. – 8:15 a.m. Tickets are just \$20.

If early morning isn't your style, P.M. roundtables also offer great discussion and networking opportunities and are held Sunday through Wednesday from 12:30 p.m. – 1:50 p.m. Tickets are \$45.

Don't forget to sign up for one (or more) of these opportunities when you fill out the registration form in the back of this guide. The Speakers with Lunch events and roundtables offer both regular and vegetarian meals. Please be sure to mark your preference on the form when you register.

Tickets for these events will be sold onsite until 2 p.m. the day before the occasion is scheduled, if the events are not already sold out.

Speakers with Lunch

If listening to a fascinating talk while having lunch with friends and colleagues sounds good to you, sign up for one of the speakers with lunch events. These lunches also offer great discussion and networking opportunities.



Roundtable sessions at JSM 2016 in Chicago



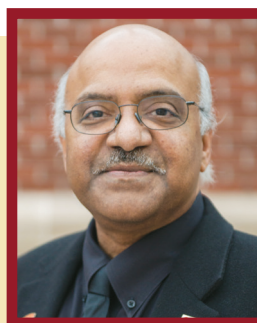
P.M. ROUNDTABLE DISCUSSION **SUNDAY, JULY 30, 2017 | 12:30 P.M. – 1:50 P.M.**



\$45 (includes meal)

Sunday's Lunch

Chicken with sautéed prosciutto and seasonal vegetables; salad; rolls and butter; choice of iced tea, hot tea, or coffee; and dessert. Chef's choice of vegetarian menu.



SPEAKER WITH LUNCH

Scientific Partnerships Among Academe, Industry, and Government Committee SL01

**Strengths, Opportunities, and
Challenges in the Era of BIG Data:
An Asian Statistician's Perspective**

*Sastry Pantula, Oregon State University
College of Science*

Numerous contributions from Asian statisticians have been recognized around the globe. Universities in the United States have been excellent training hubs for statisticians from around the world and, in particular, from Asian countries. They train problem solvers and critical thinkers for academia, business, industry, and government (BIG). I have benefited tremendously from many of my mentors and am grateful to many. In this talk, I will focus on the following:

- ⚓ Strengths Asian statisticians bring to our profession
- ⚓ Opportunities for Asian statisticians in the era of BIG data in all sectors
- ⚓ How universities and professional societies can help create future leaders in statistics
- ⚓ Needs and challenges for Asian statisticians (my personal perspective)
- ⚓ How Asian statisticians can strive for excellence, enhance diversity, and foster harmony in our profession



Roundtable session at JSM 2016 in Chicago

A.M. ROUNDTABLE DISCUSSIONS **MONDAY, JULY 31, 2017 | 7:00 A.M. – 8:15 A.M.**



\$20 each (includes continental breakfast)

Government Statistics Section

ML01

Evolution of Public Sector Data Collections: Going Beyond Traditional Probability Sample-Based Data Collection

Donsig Jang, NORC at the University of Chicago

Participants will share their experiences of making the transition from traditional data collections to a new one and how to meet those challenges.

Health Policy Statistics Section

ML02

Scalable Precision Medicine Through mHealth

Eric Laber, NCSU

Developing precision medicine strategies that operate (at least in part) through mobile devices poses significant challenges. We will discuss these challenges and the current state-of-the-art for addressing them.

Mental Health Statistics Section

ML03

Challenges and Opportunities in Functional Neuroimaging

Nicole Lazar, University of Georgia

We will explore the challenges—and opportunities—for the use of imaging methods in mental health.

Section for Statistical Programmers and Analysts

ML04

Open-Source Programming in the Regulated Environment

Greg Valin, Amgen

We will discuss the use of open-source software, such as R and Python, in early and/or clinical development.

Section on Statistical Consulting

ML05

How to Grow a Successful Statistical Consulting Enterprise

James Rosenberger, The Pennsylvania State University

I will describe some of my experiences as a statistical consultant and invite others to share lessons learned.

Section on Statistical Education

ML06

Infusing Data Science into the Statistics Curriculum

Adam Loy, Lawrence University

We will provide an overview of how we have incorporated data-scientific ideas and activities into our existing statistics courses.

ML07

Introducing Bayesian Statistics at Courses of Various Levels

Jingchen (Monika) Hu, Vassar College

How to motivate and engage students in topics of Bayesian statistics is the goal of this roundtable.

Monday's Breakfast

House-made pastries; seasonal fruit; assorted yogurts; and a cup of coffee, tea, or juice.



Roundtable session at JSM 2016 in Chicago

P.M. ROUNDTABLE DISCUSSIONS **MONDAY, JULY 31, 2017 | 12:30 P.M. – 1:50 P.M.**



\$45 (includes meal)



SPEAKER WITH LUNCH

Section on Statistics in Sports

ML08

Academia, Industry, Media: The Multiple Roles of the Sports Statistician

Stephanie Kovalchik, Tennis Australia

The past decade has seen a boon in the number of statisticians taking positions with sports governing bodies and clubs. As statistical thinking becomes more valued by stakeholders in sports—coaches, managers, and commentators, etc.—more sports statisticians are having to juggle multiple roles and communicate their work to increasingly diverse audiences. I will discuss the three common spheres today's sports statisticians occupy—academia, industry, and the media—and the challenges and opportunities each presents. The presentation will include a number of examples from my experience as a statistical researcher in a sports science program at Victoria University and data scientist with Tennis Australia, where I have developed a number of real-time analytics products that operate during the Australian Open.

Biopharmaceutical Section

ML09

Applying Bayesian Methodology to Precision Medicine

Judy X. Li, FDA

We will present a recent proposal for applying novel Bayesian methodology to subgroup analysis and then discuss the pros and cons of applying the Bayesian approach to precision medicine.

ML10

FDA Draft Guidance on Multiple Endpoints

Chunxu Liu

In January 2017, the FDA released a draft of *Guidance for Industry on Multiple Endpoints*. We would like to discuss the range of topics covered in it.

ML11

How to Treat Site in Clinical Trials: Fixed or Random?

Chul Ahn, FDA

In clinical trials involving multiple sites, should a site be treated as a fixed or random effect, and how should it be included in the analysis model? We will discuss details of treating sites in clinical trials.

ML12

How Do We Take Advantage of Big Data When Dealing with the Dilemma in Early-Phase Oncology?

Shaoyi Li, Celgene

We will discuss how we take advantage of Big Data when dealing with the dilemma early-phase oncology.

ML13

Noninferiority Trials for Efficacy and Safety

Steve Snapinn, Amgen, Inc.

We will discuss and contrast the important issues with noninferiority trials designed to demonstrate the efficacy of an investigational drug and noninferiority trials designed to rule out excess harm.

Government Statistics Section

ML14

What Is the Future of the Sample Survey for Government Statistics?

Peter Miller

Is it time to abandon the sample survey? Are nonresponse and rising costs intractable problems, or are they issues susceptible to new ways of thinking? Can administrative records and Big Data be shaped into products that satisfy the requirements of government statistics and the needs of data users who are accustomed to what surveys provide? We will discuss such questions and debate the future of the sample survey for government statistics.

Health Policy Statistics Section

ML15

Quantifying the Linkage Between Patient Outcomes and Workforce Quality

Myra Norton, Arena Analytics

We will discuss the role of statistics in measuring and modeling employee (and team) competencies and their impact on patient quality of care, as well as how

having a better understanding of these relationships might drive health policy decision making.

ML16 The Evolution of Fraud Detection Models

Brian Hochrein, IBM Watson Health

We will explore descriptive statistics by looking at simple outliers in determining fraudulent activity. We then move to predictive models, supplementing them with social media and network analysis. As the methodology continues to advance, we will visit Bayesian models and machine learning techniques.

Quality and Productivity Section

ML17 From Statistician to (Big) Data Scientist: How to Prepare?

*Ming Li, Wal-Mart Inc.
and TAMU - Commerce*

We will cover topics that bridge the gap between statisticians and data scientists with a Big Data focus.

Section for Statistical Programmers and Analysts **ML18**

Planned vs. Ad Hoc Analysis for Clinical Trials: What a Lead Programmer Needs to Prepare For

Wenyun Ji, Amgen, Inc.

We hope to collect best practices from different pharmaceutical companies to better understand the needs, rationale, and scope of both the planned and ad hoc analysis for typical clinical trials.

ML19 Pursuing a Career in Statistics and Statistical Programming: A Student's Perspective

Jessica Colson

How does one decide to pursue a career in statistics or statistical programming? We will discuss specific experiences.

Section on Bayesian Statistical Science

ML20 How Can Disease Progression Modeling Help Us Build Better Clinical Trials?

Melanie Quintana, Berry Consultants

We will focus on understanding the unique challenges encountered in designing clinical trials in slowly progressive and sporadic diseases and how disease progression models can help us overcome some of those challenges.

Section on Physical and Engineering Sciences

ML21 Design of Experiments for Big Data Era

Dennis K.J. Lin, Penn State University

We will discuss what is new for Big Data-type problems and future directions for design of experiments in these environments.

Section on Statistical Consulting **ML22** Structures of Successful Stat Labs

Eric Vance, LISA-University of Colorado Boulder

Join this discussion to learn about the current landscape of stat labs

and contribute your best practices for creating, building, or sustaining a successful stat lab.

Section on Statistical Education **ML23** Student Involvement Win Community Projects

Mary Gray, American University

Research has shown that student involvement in gathering their own data increases interest in and understanding of basic statistics. This roundtable will give participants an opportunity to share ideas and brainstorm options.

ML24 What Are the 25 Most Common Terms in Statistics from the Last 20 Years?

John McKenzie, Babson College

H. A. David provided lists of the most common terms in probability and statistics in 1995 and 1998 *The American Statistician* articles. Aldrich included many of these terms in his *Earliest Known Uses of Some of the Words of Mathematics*, along with some additional words. We will attempt to identify the 25 most common terms that should be added to their lists.

Section on Statistics and the Environment **ML25**

Data Science and Environmental Statistics

Stephan Sain

We will discuss the role of statistics in data science and how Big Data and data science are influencing research in academia and industry, especially those involving the environment.

Monday's Lunch
Parmesan-encrusted tilapia with roasted vegetables; salad; rolls and butter; choice of iced tea, hot tea, or coffee; and dessert. Chef's choice of vegetarian menu.

Section on Statistics in Epidemiology

ML26

Understanding the NIH Grant Review Process

Heidi B. Friedman, National Institutes of Health

I will describe and answer questions about the NIH grant review process. This roundtable is appropriate for all interested in NIH scientific peer review, regardless of background or experience.

To view complete roundtable descriptions, visit www.amstat.org/meetings/jsm/2017.

Section on Teaching of Statistics in the Health Sciences

ML27

Can There Be Intersections Between 'Open Data' and 'Teaching Data' in Medical Research?

Ann Brearley, University of Minnesota

We will discuss the issues involved in both the open data movement and the real data for teaching movement and explore possible intersections between the two.

Survey Research Methods Section

ML28

The Connectivity of Data Science to Survey Design and Statistical Practice

Steven Cohen, RTI International

This discussion will focus on the capacity of data science to inform the design of surveys, their operations, and associated strategies to reduce survey errors and enhance data quality. Potential contributions to sample frame development, sample design specifications, oversampling strategies, and analytic file creation will also be addressed.



Roundtable sessions at JSM 2016 in Chicago



A.M. ROUNDTABLE DISCUSSIONS **TUESDAY, AUGUST 1, 2017 | 7:00 A.M. – 8:15 A.M.**



\$20 each (includes continental breakfast)

Biopharmaceutical Section TL01

Chat with the Publications Officer of the Biopharmaceutical Section

*Richard C. Zink, JMP Life Sciences,
SAS Institute, Inc.*

Chat with the current publications officer about how participation in the Biopharmaceutical Section can develop leadership skills, address the needs of our discipline and profession, and mentor the next generation of statisticians.

Health Policy Statistics Section TL02

Current Policies and Landscape for Bayesian Methods in Drug Approval

Fanni Natanegara, Eli Lilly and Company

Statisticians working in drug development will discuss the current policies and landscape for Bayesian methods in drug approval.

Section on Statistical Consulting

TL03

Consulting, Collaboration, or Something Else? Perspectives

Michiko Wolcott, Msight Analytics

We will hear different perspectives on what “statistical collaboration/consulting” means.

Section on Statistical Education

TL04

Why Do Students Hate Statistics?

Michael DeDonno, Florida Atlantic University

We will consider the behavioral and cognitive factors that seem to affect a student’s desire and interest to take statistics courses.

Section on Statistics and the Environment

TL05

ENVR Mentoring Roundtable

Montserrat Fuentes, Virginia Commonwealth University

This roundtable will provide an opportunity for an informal meet and greet between ENVR mentors

and mentees, as well as organized mentor/mentee activities. Student application information can be found at <http://community.amstat.org/envr/home>.

Section on Statistics in Defense and National Security TL06

Advances and Challenges in Disease Surveillance

Ronald Fricker, Virginia Tech

We will discuss recent advances in statistical methods for disease surveillance and ongoing research and implementation challenges.

Section on Teaching of Statistics in the Health Sciences TL07

Role of Replication Research in Statistics Graduate Education

*Lynette Smith, University of Nebraska
Medical Center*

We will discuss a study in which two PhD biostatistics students worked to reproduce the results presented in high-impact papers using the author’s raw data and reported statistical methods.

Tuesday’s Breakfast

House-made pastries;
seasonal fruit; assorted
yogurt; and a cup of
coffee, tea, or juice.

P.M. ROUNDTABLE DISCUSSIONS **TUESDAY, AUGUST 1, 2017 | 12:30 P.M. – 1:50 P.M.**



\$45 (includes meal)



ECONOMIC OUTLOOK LUNCHEON

Business and Economic Statistics Section

TL08

The View of the Economy Through the Lens of Financial Accounts: Improving Economic Measurement at the JPMorgan Chase Institute

Diana Farrell, JPMorgan Chase Institute

The JPMorgan Chase Institute is focused on conducting original research; developing expert insights; framing critical economic problems; and convening policymakers, business leaders, and other decision makers to consider the most pressing economic issues.

The research agenda of the institute extends across the portfolio of JPMorgan Chase's lines of business and global reach. The institute focuses its analyses on consumer finance and financial health, businesses large and small, financial markets, and other critical economic topics. Our timely data, combined with expert insights, are unique resources the JPMorgan Chase Institute will use to provide a comprehensive perspective on the complex inner workings of the economy to help policymakers, businesses, and nonprofit leaders make smarter decisions to advance global prosperity.

Biopharmaceutical Section

TL09

Benefit-Risk Analysis in Medical Development

Shuai Yuan, Merck

We will discuss the emergent issues in benefit-risk assessment (BRA), the statistical methods such as MCDA/SMAA, and the practical experience of BRA.

TL10

Dose-Finding in Oncology Trials: A Discussion on Challenges and Current Methods

Zhao Yang, Amgen, Inc.

We will review popular methods implemented in Phase I oncology trials to find the maximum tolerated dose. Then, we will focus on dose-finding methods that consider both toxicity and efficacy. In addition, we will discuss dose-finding methods for the combination of multiple therapies and touch on the recent trend in the development of dose-finding methods in oncology trials.

TL11

FDA/Industry-Wide Recommended Analyses and Displays: A Vision Within Reach

Sheryl Treichel, Amgen, Inc.

A PhUSE Computational Science Working Group is creating white papers describing recommended analysis and reporting methods for frequently collected types of data included in clinical trials and regulatory submissions. I will share an example of one of the white papers so attendees can gain an understanding of the scope.

TL12

Integrating Data Science and Big Data Concepts and Machine Learning in Drug Safety

Melvin Munsaka, Takeda

We will discuss the utility of data science, Big Data ideas, and machine learning in drug safety in the pre- and post-marketing settings.

TL13

Personalized Endpoints

Marian Strazzeri, FDA

We will discuss clinical outcome assessments (COAs), which are used to capture input from patients, their caregivers, and physicians concerning key symptoms and functional impacts in a scientifically rigorous manner.

Health Policy Statistics Section

TL14

Wearable Devices in Daily Activities and Clinical Trials

R. Lakshmi Vishnuvajjala, FDA/CDRH

Wearable devices are expanding at a fast pace. We will discuss how they are used and how the interpretation of the generated data can have a great impact on patient outcome and study results.

Mental Health Statistics Section

TL15

Precision Medicine Opportunities in Mental Health

Michael R. Kosorok, The University of North Carolina at Chapel Hill

We will discuss several recent advances in precision medicine, especially in machine learning,

individualized treatment discovery, dynamic treatment regimes, and sequential multiple assignment randomized trials (SMARTs).

Quality and Productivity Section

TL16 **Statistical Process Control: Myths, Misconceptions, and Applications**

Daksha Chokshi, Aerojet Rocketdyne

I will reveal many of the commonly held myths and misconceptions about statistical process control (SPC) and how to avoid them.

Section for Statistical Programmers and Analysts

TL17

Use of Visual Analytics in Regulatory Submissions

Vipin Arora, Eli Lilly and Company

We will talk about new visualization tools that provide a unique way of exploring data, especially when it comes to understanding safety and efficacy in subgroups and permutations.

Section on Bayesian Statistical Science

TL18 **Bayesian Demography: Probabilistic Population Reconstruction and Projection**

Adrian E. Raftery, University of Washington

We will discuss some of these current efforts to put population estimation and projection on a sound statistical basis.

Section on Medical Devices and Diagnostics

TL19 **Design Specifications of Performance for an Analytical Laboratory Method**

Beimar Iriarte, Abbott Laboratories

We will explore the models and principles used in the setting of design specifications of performance for an analytical method or a laboratory test. We will review the principles and justification for equivalence design specification and discuss and evaluate the prevailing understanding of total error and uncertainty of measurement and approaches of estimation.

Section on Statistical Consulting

TL20 **Meetings: Turning Stumbling Blocks into Stepping Stones**

Douglas Zahn, Zahn & Associates

We will use the POWER (prepare, open, work, end, and reflect) process to model a successful meeting, addressing concerns identified by attendees in advance of the roundtable.

Tuesday's Lunch

Bourbon-glazed chicken with rice pilaf and grilled vegetables; salad; rolls and butter; choice of iced tea, hot tea, or coffee; and dessert. Chef's choice of vegetarian menu.



Roundtable session at JSM 2016 in Chicago

To view complete
roundtable descriptions,
visit [www.amstat.org/
meetings/jsm/2017](http://www.amstat.org/meetings/jsm/2017).

Section on Statistical Education

TL21

A Course in Business Analytics

David Levine, Baruch College (CUNY)

We will focus on alternative approaches to a business analytics course that follows an introductory statistics course. A sample course outline that integrates aspects of information systems, descriptive analytics, predictive analytics, and prescriptive analytics will be provided.

TL22

GAISEing at a Lecture Hall: Effective Pedagogy in Large-Enrollment Courses

Matthew Beckman, Penn State University

We will discuss experiences with implementation of the 2016 GAISE recommendations in large-enrollment face-to-face courses; share successes and challenges; and explore additional strategies to improve teaching, learning, and engagement in large-enrollment classes.

TL23

Incorporating Complex Survey Concepts into the Curriculum

Pamela Fellers, Grinnell College

This roundtable will give participants the opportunity to share their experiences and ideas for incorporating survey concepts into their courses.

Section on Statistics and the Environment

TL24

Sharing Stories of Success: Environmental and Ecological Statisticians Working Outside of Academia

Brian Gray, U.S. Geological Survey

We will discuss how to manage demands for both consulting and research and how to remain abreast of statistical developments when isolated from universities.

Section on Statistics in Marketing

TL25

Best Practices in Predicting Customer Attrition

Adraine Upshaw, BBVA Compass

Customer acquisition is a major focus of marketing departments in any organization. Customer attrition or churn should receive the same focus. We will discuss various approaches in predicting customer churn.

Section on Teaching of Statistics in the Health Sciences

TL26

Promoting Promotion for Statistical Educators

Felicity Enders, Mayo Clinic

We will discuss how to promote yourself through your CV, what areas to focus on as you build your career, and preparing for promotion by taking the long view. Please bring two printed copies of your CV to the session.

Social Statistics Section

TL27

The Implications of Undercounting Young Children in Census and Census Bureau Surveys

*William O'Hare, O'Hare Data
and Demographic Services LLC*

We will talk about what the underreporting of young children means for statistical analysis and survey research on this population.

Survey Research Methods Section

TL28

Election 2016 Polling: What We Learned

Mark Schulman

We will discuss some of the vexing issues involving polling during the 2016 presidential elections.

A.M. ROUNDTABLE DISCUSSIONS **WEDNESDAY, AUGUST 2, 2017 | 7:00 A.M. – 8:15 A.M.**



\$20 each (includes continental breakfast)

Government Statistics Section

WL01

Publication Options for Producers of Official Statistics

Kirsten West

In addition to discussing the fundamental aspects of manuscript preparation, review, and publication, we will discuss topics that are particularly suitable for sharing with an international audience of users and producers of official statistics.

Health Policy Statistics Section

WL02

From Estimates to Consequences: How Do We Make Results of Statistical Analyses Useful for Health Policy Decision Making?

Ruth Etzioni, Fred Hutchinson Cancer Research Center

We will discuss opportunities and methods for statistical input into translating standard inferences into policy-relevant consequences.

Mental Health Statistics Section

WL03

Statistical Challenges and Possible Career Path in Aging and Dementia Research

Chengjie Xiong, Washington University School of Medicine

In this roundtable, I will discuss the status of the biostatistical community in aging and dementia research and the major statistical challenges facing the scientific community.

Section on Statistical Consulting

WL04

A Statistician's Guide to Data Storytelling in Business

Christopher Holloman, Information Control Company

We will discuss the key components of stories (characters, setting, conflict, plot, and theme) and talk about how we can improve communication of statistical findings to business users by building more meaningful data stories.

Section on Statistical Education

WL05

Turning a Tweet into a Lesson: Using Current Events as a Context

Ellen Endriss, Career Center

We will explore how instructors might approach communicating that statistics is essential to all high-school and college students by making statistical thinking a part of how we can understand the bigger picture in today's world.

Section on Statistical Learning and Data Science

WL06

Spline Density Estimation and Inference with Model-Based Penalties

Jian Shi, University of California, Santa Barbara

We will talk about model-based penalties for smoothing spline density estimation and inference.

Wednesday's Breakfast

House-made pastries; seasonal fruit; assorted yogurt; and a cup of coffee, tea, or juice.



Roundtable session at JSM 2016 in Chicago

P.M. ROUNDTABLE DISCUSSIONS WEDNESDAY, AUGUST 2, 2017 | 12:30 P.M. – 1:50 P.M.



\$45 (includes meal)



WEDNESDAY—SPEAKER WITH LUNCH

Section on Health Policy Statistics

WL07

The Role of Research and Evaluation in Health Policy Reform

*Renee Mentnech, Centers for Medicare and
Medicaid Services*

The Centers for Medicare and Medicaid Services (CMS) is committed to strengthening and modernizing the nation's health care system to provide access to high-quality care and improved health at lower costs. Established by the Affordable Care Act, the CMS Innovation Center tests innovative payment and service delivery models to reduce program expenditures while preserving or enhancing the quality of care. For each model implemented by the Innovation Center, a rigorous evaluation is conducted to assess whether and how the model leads to meaningful cost reductions, improvements in the quality of care delivered, and better patient health outcomes/experiences. For each measure of interest, one of several statistical techniques is used to evaluate the effect of the intervention on outcomes of interest. Qualitative data collection is also used to capture the evolving nature of care and model evaluations. These evaluations need to include an approach that disentangles the simultaneous and competing provider and market level forces that could influence the findings.

Biopharmaceutical Section

WL08

Aggregate Safety Monitoring for the FDA IND Safety Reporting Final Rule

Greg Ball, Merck

We will discuss the 2015 draft guidance on the FDA IND safety reporting final rule that states sponsors should periodically review accumulating safety data collected across multiple studies (completed and ongoing), analyze the data in the aggregate, and make a judgment about the likelihood that the drug caused any SAEs.

WL09

Statistical Considerations for Rare Disease Clinical Development

Yang Song, Vertex Pharmaceuticals

We will discuss statistical considerations on the design and analysis of clinical trials in rare disease areas, including trial designs that maximize use of patient information; more adaptive or flexible trial designs; trial designs that use information from natural history, registry data, covariates, and/or disease modeling; choice of information rich or more sensitive endpoints; considerations on alternative endpoints including surrogates and composites; and the possibility of higher than conventionally accepted type I and type II error rates.

WL10

Statistical Inference in the Era of Precision Medicine: The Essential Role of Statistics for Unmet Needs in Algorithm Refinement, Diagnostics Application, and Drug Development

Ruixiao Lu, Genomic Health

We will discuss the state-of-the-art in precision medicine in oncology on study design, assay refinement, and diagnostics application.

WL11

The Statistician Speaks Before Her Turn: Is It Our Business to Look Beyond the Statistical Analysis Plan in a Clinical Trial Protocol?

Yuqun Abigail Luo, FDA

We will discuss how, as the medical field advances toward more precise medicine and complex therapeutics, closer scrutiny may uncover incongruousness in the not-yet-well-defined indication, eligibility criteria, and endpoint choice.

WL12

Unblinded Sample Size Re-Estimation for Complex Trials

Chris Holland, Amgen, Inc.

We will discuss obstacles to implementing unblinded sample size re-estimation and ideas for navigating such obstacles with a particular focus on issues relating to more complex trials.

Government Statistics Section WL13

The Use of Administrative Records and Third-Party Data in the 2020 Census

Elizabeth Grieco, U.S. Census Bureau

Participants in this roundtable will gain a broader understanding of how administrative record and third-party data sources will help improve the quality of the address list (frame), validate respondent submissions, and reduce field workload for follow-up activities.

Mental Health Statistics Section WL14

Statistical Challenges in Precision Medicine: Focus on Psychiatric Genetics

Joanna Biernacka, Mayo Clinic

This roundtable discussion will focus on precision medicine challenges in psychiatric precision medicine.

Quality and Productivity Section WL15

Statistical Literacy in the Age of Data Science

Michael Jadoo, Bureau of Labor Statistics

We will talk about improvements that can be made to increase the skill sets of data science professionals.

Section for Statistical Programmers and Analysts WL16

Open-Source Software in Statistical Production Environments

Jonathan Lisic, USDA/NASS

We will discuss the benefits and challenges of adopting, integrating, and maintaining open-source software in statistical production environments.

Section on Bayesian Statistical Science WL17

Bayesian Inference in Surveys

Trivellore Raghunathan, University of Michigan School of Public Health

We will explore the role of models in survey inference and the strength of Bayesian approach in the finite population survey inference.

Section on Medical Devices and Diagnostics WL18

Considerations in Transitioning from Proprietary to Nonproprietary Statistical Software to Support Regulatory Submissions

Theodore Lystig, Medtronic, Inc.

The objective of this roundtable session will be to share considerations and experiences in transitioning between proprietary and nonproprietary statistical software.

Wednesday's Lunch

Yankee pot roast with mashed potatoes and grilled vegetables; salad; rolls and butter; choice of iced tea, hot tea, or coffee; and dessert. Chef's choice of vegetarian menu.



Roundtable session at JSM 2016 in Chicago

Section on Physical and Engineering Sciences

WL19

Statistical Challenges and Opportunities with Remote Sensing Data

Jonathan Hobbs, Jet Propulsion Laboratory

This discussion will address the tradeoffs between making optimal inference and practical considerations such as data volume for global remote sensing efforts.

Section on Risk Analysis

WL20

Risk in the Context of Regulation

David Banks, Duke University

We will discuss the problem of framing appropriate regulation when there are multiple stakeholders with different interests and beliefs. We shall also address the difficulty of distinguishing perceived risk from actual risk in several specific applications.

Section on Statistical Consulting

WL21

Impact of Successful Stats Consulting in a Fast-Changing Environment: A Pharmaceutical Industry Perspective

Jianing Di, Janssen R&D

This interactive session will facilitate discussion on what successful stats consulting can provide in an industry where common practice is changing rapidly due to increasing responsibility of statisticians, growing complexity of the work, regulatory requirement reform, etc.

Section on Statistical Education

WL22

Discussing the Uses and Creation of R Shiny Applications

Justin Post, North Carolina State University

We'll discuss the creation and use of R Shiny applications. Participants

at the roundtable should have a working knowledge of R.

WL23

Recruiting and Engaging Students

Scott McClintock, West Chester University

We will discuss a variety of issues centered on recruiting and engaging students in the study and practice of statistics.

Section on Statistics in Defense and National Security

WL24

Statistical Design and Analysis in DoD Test and Evaluation

Laura Freeman, IDA

We will discuss the benefits and challenges of increasing the use of statistical methods in test and evaluation.



Roundtable sessions at JSM 2016 in Chicago

Section on Statistics in Epidemiology

WL25

How Can Statisticians Help Ensure the Bright Future of Population Health Research in the United States?

*Karen Bandeen-Roche,
The Johns Hopkins University*

We will think through the challenges, opportunities, and strategies by which statisticians help ensure population health science will continue to robustly advance the public's health throughout the 21st century.

Social Statistics Section

WL26

Challenges and Opportunities in Record Matching in Immigration Data

*Jiashen You, U.S. Department
of Homeland Security*

We will discuss some of the current challenges in linking records and

demonstrate (either in concept or with clearance) findings in several immigration lifecycle projects.

WL27

Nonparametric Estimation of Marginal Mean Over Time for a General Counting Process

Sudipta Bhattacharya, AstraZeneca

We will discuss a nonparametric estimator of mean that is easy to understand and may be used by scientists for assessing intensity of an event in the respective context.

Statistics Partnerships Among Academe, Industry, and Government Committee

WL28

Making Sense of Abundance of Data Through Collaborations

Ying Ding, University of Pittsburgh

The purpose of this roundtable is to share/learn the collaborative needs and identify/promote partnership opportunities for research problems that contain Big Data. The target audience includes statisticians and data scientists engaging in Big Data research across various fields.



Roundtable sessions at JSM 2016 in Chicago



PROFESSIONAL DEVELOPMENT



Professional Development (PD) is a fundamental component of the professional life of statisticians, and it increases the value of their contributions to society. PD is the process of improving and broadening the knowledge, skill, and personal qualities needed to be successful in the practice of statistics.



To complement the ASA's continuing education program, a personal skills development program of courses, workshops, and other training has been developed to meet the needs of members under the ASA Professional Development umbrella.

Continuing education offerings consist of courses and computer technology workshops in statistical methodology and practice. Courses are offered in two-day, one-day, and half-day formats Saturday through Tuesday. The ASA provides beverages for mid-morning and mid-afternoon breaks. Computer technology workshops are offered in two-hour intervals on Wednesday.

Personal skills development consists of courses, workshops, and panel discussions on topics such as effective communication, collaboration, leadership, and influence.



Follow us on Twitter
@AmstatNews Use
#JSM2017

Registration

To participate in Professional Development offerings, you must register for JSM. Lower rates are given to those adding courses and workshops to their registration from May 1 to June 29. Registration depends on seat availability and is handled on a first-come, first-served basis. If seats are available after July 20, onsite registration will be offered.

Course Participation Certificates

The ASA provides course participation certificates upon request to those who attend the entire course (certificates are not available to computer technology workshop attendees). Certificates are available to pick up from the course monitor at the conclusion of the course.

Excellence-in-CE Award

Courses that exceed expectations in quality, content, and presentation are recognized with the Excellence-in-CE award from the Advisory Committee on Continuing Education (ACCE).

Discount

PStat, GStat, and A.Stat accredited members in good standing with the ASA or SSC will receive a 20% discount on Professional Development courses and workshops.

SATURDAY, JULY 29

CE_01C (two-day course)

8:30 a.m. - 5:00 p.m.

Master the Tidyverse: An Introduction to R for Data Science

Instructor(s): Garrett Grolmund

This two-day workshop covers the new book *R for Data Science* from Hadley Wickham and Garrett Grolmund and provides a comprehensive overview of what is now called the Tidyverse, a core set of R packages that are essential to data science. A basic knowledge of R syntax is assumed.

FEES: M - \$675 (\$920)
NM - \$825 (\$1120)
S - \$390 (\$530)

CE_02C

8:30 a.m. - 5:00 p.m.

Longitudinal and Incomplete Data

Instructor(s): Geert Molenberghs and Geert Verbeke

We begin by presenting linear mixed models for continuous hierarchical data. Emphasis will be on model formulation, parameter estimation, and hypothesis testing, as well as on the distinction between the random-effects (hierarchical) model and implied marginal model. Then, models for non-Gaussian data will be discussed, with a strong emphasis on generalized estimating equations (GEE) and the generalized linear mixed model (GLMM). A framework will be sketched to

handle incomplete data. Simple and simplistic methods will be commented on. Methods to properly analyze incomplete data, under flexible assumptions, will be presented.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_03C

8:30 a.m. - 5:00 p.m.

Bayesian Designs for Phase I-II Clinical Trials

Instructor(s): Peter Thall and Ying Yuan

This course will cover a variety of Bayesian sequentially adaptive phase I-II clinical trial designs that use both efficacy and toxicity to optimize dose, the dose pair of a two-agent combination, two doses given in sequence, or dose and schedule.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_04C

8:30 a.m. - 5:00 p.m.

An Introduction to the Joint Modeling of Longitudinal and Survival Data, with Applications in R

Instructor(s): Dimitris Rizopoulos

This course is aimed at applied researchers and graduate students. We will explain when joint models should be used in practice, which are the key assumptions behind them, and how they can be used

to extract relevant information from the data. This course assumes knowledge of basic statistical concepts such as standard statistical inference using maximum likelihood and regression models. In addition, basic knowledge of R is beneficial, but not required. Participants are required to bring their own laptop with the battery fully charged.

FEES: M - \$415 (\$555)
NM - \$545 (\$725)
S - \$260 (\$345)

CE_05C

8:30 a.m. - 5:00 p.m.

Bayesian Thinking: Fundamentals, Computation, and Multilevel Modeling

Instructor(s): James Albert

The basic tenets of Bayesian thinking will be introduced. We will focus on Bayesian regression for continuous and categorical response data. The use of R in Bayesian computation will be described, including the programming of the posterior distribution and the use of different R tools to summarize the posterior. Special focus will be on the application of Markov chain Monte Carlo algorithms and diagnostic methods to assess convergence of the algorithms. It will be assumed the participant has some basic familiarity with the R system.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

M=MEMBER
NM=NONMEMBER
S=STUDENT
(Price in parentheses is for after June 29.)

To view complete course descriptions, visit www.amstat.org/meetings/jsm/2017.



M=MEMBER

NM=NONMEMBER

S=STUDENT

(Price in parentheses
is for after June 29.)

CE_06C

8:30 a.m. - 5:00 p.m.

**Propensity Score Methods
and Their Applications
in Observational Studies**

*Instructor(s): Wei Pan
and Haiyan Bai*

This course will introduce concepts and issues of propensity score methods—including matching, stratification, and weighting—and discuss when and how to use propensity score methods in observational studies. No prior knowledge of propensity score methods is required; however, an understanding of basic research design and statistics is desirable.

FEES: M - \$415 (\$555)
NM - \$545 (\$725)
S - \$260 (\$345)

CE_07C

1:00 p.m. - 5:00 p.m.

Network Meta-Analysis

*Instructor(s): Christopher Schmid
and Thomas Trikalinos*

This course will introduce meta-analysis in the context of evidence-based science and outline the basic principles of network meta-analysis and assessment of the validity of its assumptions, including the key role potential effect modifiers play.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

SUNDAY, JULY 30

CE_01C (two-day course)

8:30 a.m. - 5:00 p.m.

**Master the Tidyverse: An
Introduction to R for Data
Science**

Instructor(s): Garrett Grolemund

CE_08C

8:30 a.m. - 5:00 p.m.

**Bayesian and Frequentist
Adaptive Methods
for Clinical Trials**

*Instructor(s): Peter Mueller,
Frank Bretz, and Byron Jones*

This course will introduce various adaptive methods for Phase I to Phase III clinical trials using both frequentist and Bayesian methods. Accordingly, different types of adaptive designs will be introduced and illustrated with case studies.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_09C

8:30 a.m. - 5:00 p.m.

**Regression Modeling
Strategies**

Instructor(s): Frank Harrell

This course provides methods for estimating the shape of the relationship between predictors and response using the widely applicable method of augmenting the design matrix using restricted cubic splines. The methods covered will apply to almost any regression model.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_10C

8:30 a.m. - 5:00 p.m.

**Precision Medicine Through
Optimal Treatment Regimes**

*Instructor(s): Eric Lafer, Marie
Davidian, Anastasios (Butch) Tsiatis,
and Shannon Holloway*

In this course, we provide a rigorous but accessible introduction to estimation of and inference for optimal treatment regimes using data from observational or randomized studies. No prior exposure to treatment regimes is assumed

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_11C

8:30 a.m. - 5:00 p.m.

**Preparing Statistician/
Statistics Graduates to Be
Data Scientists**

Instructor(s): Ming Li and Hui Lin

We will go through the needed data science knowledge and skills to prepare statisticians to be excellent data scientists. The cloud-based computation environment will be used and case studies will cover how to leverage Big Data distributed platform, data wrangling, modeling, dynamic report, and interactive dashboard to tackle real-world data science problems. The prerequisite knowledge is MS-level education in statistics and entry level of RStudio.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_12C

8:30 a.m. - 5:00 p.m.

Statistical Analysis with Missing Data*Instructor(s): Roderick Little and Trivellore Raghunathan*

This short course will discuss methods for the statistical analysis of data sets with missing values. Required are knowledge of standard statistical models, matrix algebra, calculus, and basic maximum likelihood for common distributions.

FEES: M - \$390 (\$530)
 NM - \$520 (\$700)
 S - \$235 (\$320)

CE_13C

8:30 a.m. - 5:00 p.m.

Bayesian Time Series Analysis and Forecasting*Instructor(s): Raquel Prado, Mike West, and Marco Ferreira*

This short course covers basic principles and methods of Bayesian dynamic modeling in time series analysis and forecasting, with methodological details of central model classes explored in a range of examples. Working facility in multivariate distribution theory, Bayesian inference, and simulation-based methods of computation are prerequisites. Prior exposure to some areas of time series analysis will be useful.

FEES: M - \$390 (\$530)
 NM - \$520 (\$700)
 S - \$235 (\$320)

MONDAY, JULY 31**CE_14C**

8:00 a.m. - 12:00 p.m.

Multi-Regional Clinical Trials and the ICH E17*Instructor(s): William Wang, Aloka Chakravarty, and Lisa LaVange*

This course will cover the draft guidance *E17 General Principles for Planning and Design of Multi-Regional Clinical Trials*, which describes general principles for planning and designing multi-regional clinical trials (MRCT).

FEES: M - \$245 (\$335)
 NM - \$320 (\$430)
 S - \$150 (\$200)

CE_15C

8:30 a.m. - 5:00 p.m.

Statistical Analysis of Medical Product Safety Data and Benefit-Risk Assessment*Instructor(s): Jie Chen, Joseph Heyse, and Tze Leung Lai*

This course will present the commonly used, as well as the cutting-edge, statistical methods tailored for specific objectives and data types for safety signal detection and benefit-risk assessment.

FEES: M - \$390 (\$530)
 NM - \$520 (\$700)
 S - \$235 (\$320)

CE_16C

8:30 a.m. - 5:00 p.m.

A Tutorial on Quantile Regression and Its Applications*Instructor(s): Lan Wang and Ruosha Li*

This course will cover the basics of quantile regression. Participants are expected to know the basics of linear regression, but no prior knowledge of quantile regression is required.

FEES: M - \$390 (\$530)
 NM - \$520 (\$700)
 S - \$235 (\$320)

CE_17C

8:30 a.m. - 5:00 p.m.

Successful Data Mining in Practice*Instructor(s): Richard De Veaux*

This course is a practical introduction to and an overview of the techniques and strategies of data mining. While I will discuss the models in detail, the course will be application oriented. No prerequisites other than a knowledge of the basics of regression are assumed.

FEES: M - \$390 (\$530)
 NM - \$520 (\$700)
 S - \$235 (\$320)

CE_18C

8:30 a.m. - 5:00 p.m.

**Applied Bayesian
Computational Methods***Instructor(s): Abel Rodriguez
and Christopher Paciorek*

This course will introduce participants to modern Bayesian computational methods, with a focus on the variety of new and old Markov chain Monte Carlo (MCMC) algorithms. There will be a heavy emphasis on hands-on implementation of algorithms, primarily within the NIMBLE platform (r-nimble.org).

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_19C

8:30 a.m. - 5:00 p.m.

**Synthetic Data Sets for
Statistical Disclosure Limitation***Instructor(s): Jörg Drechsler
and Jerry Reiter*

This course will provide a detailed overview of the synthetic data approach. Some background regarding general linear modelling is expected. Familiarity with the concept of Bayesian statistics is helpful. R will be used to illustrate the implementation of the approach.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_20C

8:30 a.m. - 5:00 p.m.

**Bayesian Modeling and
Inference for High-Dimensional
Spatial-Temporal Data***Instructor(s): Abhirup Datta, Sudipto
Banerjee, and Andrew O. Finley*

We will present scalable Bayesian models and related estimation methods that can provide fast analysis of big spatial and spatio-temporal data using modest computing resources and standard statistical software environments such as R. Participants will benefit from some understanding of mathematical statistics and linear algebra. We will not assume any significant previous exposure to spatial or spatiotemporal methods or Bayesian inference. All the computational tools and environments will also be introduced as necessary in the course.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_21C

1:00 p.m. - 5:00 p.m.

**Bayesian Analysis of Big and
High-Dimensional Data***Instructor(s): David Dunson*

This course will provide a practical overview of state-of-the-art approaches for analyzing massive data sets using Bayesian statistical methods. Code and notes will be made available, and research problems of ongoing interest highlighted.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

TUESDAY, AUGUST 1**CE_22C**

8:30 a.m. - 5:00 p.m.

**Analysis of Clinical Trials:
Theory and Applications***Instructor(s): Devan Mehrotra,
Alex Dmitrienko, and Jeff Maca*

The course covers analysis of stratified trials, analysis of longitudinal data with dropouts, analysis of pharmacogenetics data, crossover trials, multiple comparisons, and interim decision making and adaptive designs. The attendees are required to have basic knowledge of clinical trials. Familiarity with drug development is highly desirable, but not necessary. This course was taught at JSM 2005-2016 and received the Excellence in Continuing Education Award in 2005.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_23C

8:30 a.m. - 5:00 p.m.

**Construction of Weights
in Surveys***Instructor(s): David Haziza*

The typical weighting process involves three major stages. The goal of the course is to provide a detailed description of each stage. Participants should have a background in survey sampling and regression analysis. The course is intended for survey statisticians working in survey organizations, graduate students, and users of survey data.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_24C

8:30 a.m. - 5:00 p.m.

Analysis of Categorical Data

Instructor(s): Christopher Bilder and Thomas Loughlin

Participants will learn how to analyze the most common types of categorical data. The ideal background for participants is experience with multiple linear regression and the application of likelihood-based methods. All computations will be performed using R, so familiarity with its basics is recommended.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_25C

8:30 a.m. - 5:00 p.m.

High-Dimensional Covariance Estimation and Portfolio Selection

Instructor(s): Mohsen Pourahmadi

The course provides a broad introduction to covariance estimation for high-dimensional data and its role in portfolio selection in finance. Various case studies and data sets will be discussed in detail using some existing packages in R.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_26C

8:30 a.m. - 5:00 p.m.

Research and Analysis Workflows: Low-Cost, Every-Day Project Management Techniques, Tools, and Tips That Produce High-Quality, Streamlined, Stress-free Research and Data Science

Instructor(s): Matt Jans and Abhijit Dasgupta

This course presents the most useful and generally applicable tools and techniques culled from the instructors' 30+ combined years of experience in statistics, data science, collaborative biomedical research, consulting, public health, social science, and survey research. It emphasizes simple tools and basic habits that will streamline your research process.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_27C

8:30 a.m. - 5:00 p.m.

Essentials of High-Performance and Parallel Statistical Computing with R

Instructor(s): Wei-Chen Chen and George Ostrouchov

We introduce fundamentals of parallel statistical computing, including the use of the pbdR package ecosystem on larger platforms, as well as present a broad overview of parallel programming paradigms and relate parallel approaches within R for

statistical computation. Basic knowledge of R and statistical computing are assumed.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_28C

8:30 a.m. - 5:00 p.m.

A Statistical Approach to Machine Learning: Boosting, Nearest Neighbors, Random Forests, and Support Vector Machines

Instructor(s): Andreas Ziegler and Marvin Wright

This course will provide an introduction to some of the most important machine learning approaches currently used. The focus of the theoretical sessions is the nontechnical, but intuitive, explanation of the algorithms; the focus of the hands-on laptop sessions is to see the machines operating using R.

FEES: M - \$415 (\$555)
NM - \$545 (\$725)
S - \$260 (\$345)

M=MEMBER
NM=NONMEMBER
S=STUDENT
(Price in parentheses is for after June 29.)

CANCELLED

COMPUTER TECHNOLOGY WORKSHOPS



(Price in parentheses
is for after June 29.)

WEDNESDAY, AUGUST 2

CE_29T

8:00 a.m. - 9:45 a.m.

Analyzing Temporal and Spatiotemporal Data in IBM Products

*Instructors: David Nichols, Svetlana
Levitana, and Hui Yang*

This workshop will introduce participants to the theory of each algorithm and demonstrate their use in IBM products with real-life data. These methods will be demonstrated in IBM SPSS Modeler and IBM SPSS Statistics products, as well as the new cloud-based IBM Data Science Experience. Basic knowledge of time series analysis and data mining is assumed.

FEES: \$60 (\$75)

CE_30T

8:00 a.m. - 9:45 a.m.

Analyzing Multilevel Models with the GLIMMIX Procedure

Instructor: Min Zhu

This tutorial will show you how to construct a multilevel model to account for variability at each level through both explanatory and random variables. Then you will learn how to use the generalized linear mixed model procedure GLIMMIX in SAS/STAT® to estimate multilevel models for both continuous and discrete responses. You will also learn about enhanced weighting options for PROC GLIMMIX that handle weights at different levels. Finally,

you will see how to apply these features to analyzing complex survey data collected by multistage sampling with unequal sampling probabilities.

FEES: \$60 (\$75)

CE_31CT

8:00 a.m. - 9:45 a.m.

Introduction to Data Mining with CART Classification and Regression Trees

*Instructor(s): Dan Steinberg, Mikhail
Golovnya, and Charles Harrison*

This tutorial is intended for the applied statistician wanting to understand and apply the CART classification and regression trees methodology. The emphasis will be on practical data analysis and data mining involving classification and regression.

FEES: \$60 (\$75)

CE_32CT

10:00 a.m. - 11:45 a.m.

Bayesian Analysis Using Stata

Instructor: Yulia Marchenko

This workshop covers the use of Stata to perform Bayesian analysis. I will demonstrate the use of Bayesian analysis in various applications and introduce Stata's suite of commands for conducting Bayesian analysis. No prior knowledge of Stata is required, but basic familiarity with Bayesian analysis will prove useful.

FEES: \$60 (\$75)

CE_33T

10:00 a.m. - 11:45 a.m.

Causal Treatment Effect Analysis Using SAS/STAT Software

Instructor: Yiu-Fai Yung

This workshop introduces two SAS/STAT® procedures, CAUSALRT and PSMATCH, for the analysis of causal treatment effects from observational data. It also gives a brief, high-level account of causal inference issues and the principles that underlie the two procedures. Basic familiarity with generalized linear models is assumed.

FEES: \$60 (\$75)

CE_34T

10:00 a.m. - 11:45 a.m.

Improve Your Regression with Modern Regression Analysis Techniques: Linear, Logistic, Nonlinear, Regularized, GPS, LARS, LASSO, Elastic Net, MARS, TreeNet Gradient Boosting, Random Forests

*Instructor(s): Mikhail Golovnya,
Charles Harrison, and Dan Steinberg*

Using real-world data sets, we will demonstrate advances in nonlinear, regularized linear, and logistic regression. We will introduce the main concepts behind Leo Breiman's Random Forests and Jerome Friedman's GPS (Generalized Path Seeker), MARS (Multivariate Adaptive Regression Splines), and Gradient Boosting. Prerequisites: basic knowledge of classical and logistic regression.

FEES: \$60 (\$75)

CE_35T

1:00 p.m. - 2:45 p.m.

Data Visualization for Life Sciences with JMP

Instructors: Kelci Miclaus and Richard Zink

The goal of this workshop is to describe data visualization techniques for understanding and communicating results from applications in clinical trials and genomics research using the JMP family of products. Topics include distributional summaries, signal detection safety outcomes, findings trends and abnormalities, data integrity, co-occurrence, clustering and correlations, genomic associations, subgroup analysis, and meta-analysis.

FEES: \$60 (\$75)

CE_36T

1:00 p.m. - 2:45 p.m.

Advanced Methods for Survival Analysis Using SAS/STAT Software

Instructor: Changbin Guo

This tutorial begins with a review of basic concepts and then presents two sets of model assessment methods—concordance statistics and time-dependent ROC curves—that are available in the PHREG procedure in SAS/STAT 14.2. Next, the tutorial introduces the ICLIFEST and ICPHREG procedures for the analysis of interval-censored data. The tutorial then turns to the analysis of competing risks data and explains how to use the

LIFETEST procedure to conduct nonparametric survival analysis and the PHREG procedure to investigate the relationship of covariates to cause-specific failures. A basic understanding of applied statistics is assumed.

FEES: \$60 (\$75)

CE_37T

1:00 p.m. - 2:45 p.m.

Evolution of Classification: From Logistic Regression and Decision Trees to Bagging/Boosting and Netlift Modeling

Instructor(s): Mikhail Golovnya, Charles Harrison, and Dan Steinberg

This presentation will cover recent improvements to conventional decision tree and logistic regression technology via two case study examples: one in direct marketing and the second drawn from biomedical data analysis. Within the context of real-world examples, we will illustrate the evolution of classification by contrasting and comparing: Regularized Logistic Regression, CART, Random Forests, TreeNet Stochastic Gradient Boosting, and RuleLearner.

FEES: \$60 (\$75)

CE_38T

3:00 p.m. - 4:45 p.m.

Weighted GEE Analysis Using SAS/STAT Software

Instructor: Michael Lamm

This workshop introduces you to the GEE procedure (new in the SAS/STAT 13.2 release), which

supports both the standard and weighted GEE methods for analyzing longitudinal data.

You will learn about the different mechanisms used to describe why a response is missing and how the missing data mechanism affects inference using the standard and weighted GEE approaches. A basic familiarity with generalized linear models is assumed.

FEES: \$60 (\$75)

CE_39T

3:00 p.m. - 4:45 p.m.

Applied Data Mining Analysis: A Step-by-Step Introduction Using Real-World Data Sets

Instructor(s): Dan Steinberg, Mikhail Golovnya, and Charles Harrison

In this presentation, specifically designed for statisticians, we will show how you can quickly and easily create data mining models. This tutorial follows a step-step approach to introduce advanced automation technology, including CART, MARS, TreeNet Gradient Boosting, Random Forests, and the latest multi-tree boosting and bagging methodologies by the original creators of CART.

FEES: \$60 (\$75)

PERSONAL SKILLS DEVELOPMENT

(Price in parentheses
is for after June 29.)

CE_40P (spans two days)

Part I: Saturday, July 29

1:00 p.m. - 6:30 p.m.

Part II: Sunday, July 30

8:00 a.m. - 12:00 p.m.

Preparing Statisticians for Leadership: How to See the Big Picture and Have More Influence

*Instructor(s): Gary R. Sullivan
and Vaneeta Grover*

This course provides an understanding of leadership and how statisticians can improve and demonstrate leadership to affect their organizations. It features leaders from all sectors of statistics speaking about their personal journeys and provides guidance on personal leadership development with a focus on the larger organizational/business view and influence.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_41P (spans two days)

Part I: Saturday, July 29

1:00 p.m. - 5:00 p.m.

Part II: Sunday, July 30

8:00 a.m. - 12:00 p.m.

Setting and Documenting Progress Toward Professional Goals

*Instructor(s): Rochelle
E. Tractenberg*

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_42P

Sunday, July 30

10:30 a.m. - 12:30 p.m.

JSM Presentation Skills Workshop

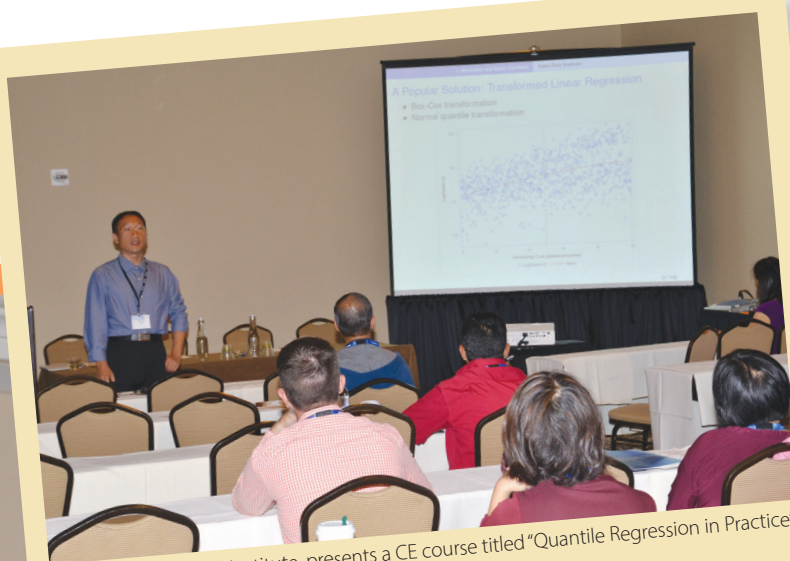
*Organizer(s): Brian Wiens
and Richard De Veaux*

A panel of experienced and award-winning presenters will share advice about speaking at JSM. Topics will include engaging the audience, effective practice techniques, organizing your talk, visual aids, answering audience questions, and speaking in a language other than your native tongue.

FEES: FREE Event



Garrett Fitzmaurice, Harvard School of Public Health, gives a CE course titled "Applied Longitudinal Analysis" at JSM 2015 in Seattle.



Yonggang Yao, SAS Institute, presents a CE course titled "Quantile Regression in Practice" at JSM 2015 in Seattle.

CE_43P

Sunday, July 30

2:00 p.m. - 4:00 p.m.

Career Development: Statistical Soft Skills: They're Essential

Cosponsor: Committee on Career Development

Panelists: Dasgupta, Nairanjana (Jan), Washington State University; Weihsueh Chiu, Texas A&M University; Mia Stephens, JMP; Eduardo Santiago, Amazon; Vaneeta Grover, GSK

The ASA Committee on Career Development defines soft skills training as the attributes that allow a statistician to effectively interact with other statisticians and non-statisticians to ensure job satisfaction and career advancement. Join ASA's Committee on Career Development and its 2017 panelists representing different industries, positions, experience, and education levels to discuss best practices, lessons learned, and other topics related to soft skills development.

FEES: FREE Event

CE_44P (Spans two days)

Part I: Monday, July 31

8:00 a.m. - 12:00 p.m.

Part II: Tuesday, August 1

1:00 p.m. - 5:00 p.m.

Effective Presentations for Statisticians: Success = (PD)2

Instructor(s): Jennifer van Mullekom

This short course will provide an opportunity to learn how to employ different methods and tools in the phases of the Success = (PD)2 framework. The material covered is geared toward scientific presentations and based on the works of Garr Reynolds and Michael Alley, among others. Be prepared for an active class full of discussion and group exercises.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

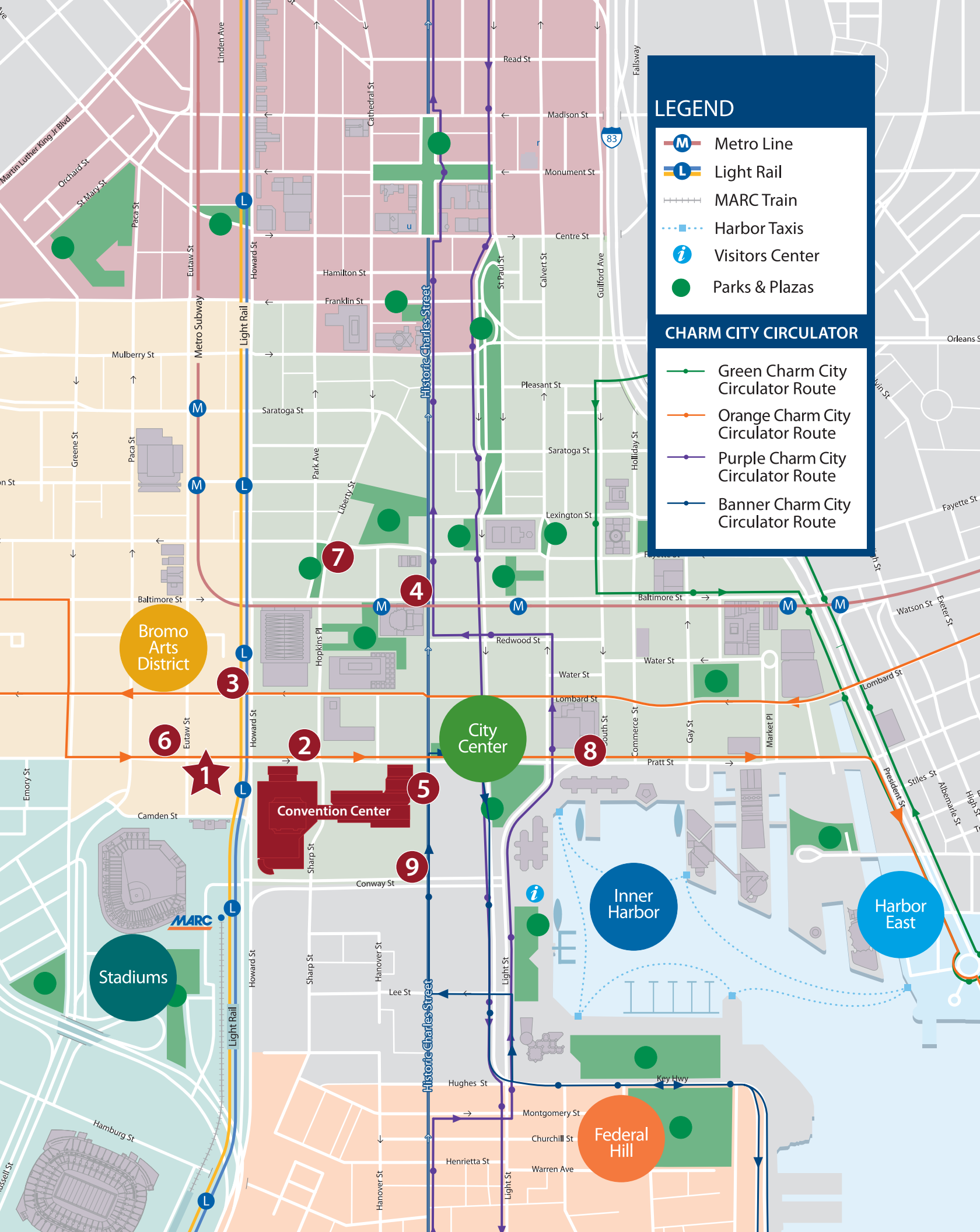
To view complete Professional Development course descriptions, visit www.amstat.org/meetings/jsm/2017.



Amy Shi, SAS Institute, talks during her CE course titled "Introducing the SAS BCHOICE Procedure for Bayesian Choice Model's at JSM 2015 in Seattle.



Fang Chen, SAS Institute, presents a CE course titled "Practical Bayesian Computation" at JSM 2015 in Seattle.



LEGEND

- Metro Line
- Light Rail
- MARC Train
- Harbor Taxis
- Visitors Center
- Parks & Plazas

CHARM CITY CIRCULATOR

- Green Charm City Circulator Route
- Orange Charm City Circulator Route
- Purple Charm City Circulator Route
- Banner Charm City Circulator Route

JSM 2017 GENERAL HOUSING INFORMATION

**HOUSING
DEADLINE
IS JUNE 30**

All hotel rooms are subject to applicable taxes (currently 15.5%, but subject to change)

	RATES	SINGLE/ DOUBLE	TRIPLE/ QUAD	U.S. GOVERNMENT
1 Hilton Baltimore (HQ)		\$219	\$239/\$259	\$140
2 Days Inn Inner Harbor		\$169	\$169/\$169	\$140
3 Holiday Inn Inner Harbor		\$189	\$209/\$229	\$140
4 Hotel Monaco		\$199	\$219/\$239	\$140
5 Hyatt Regency		\$213	\$238/\$263	\$140
6 Marriott Inner Harbor		\$210	\$220/\$230	\$140
7 Radisson Hotel Baltimore Downtown-Inner Harbor		\$169	\$169/\$169	\$140
8 Renaissance Harborplace Hotel		\$210	\$220/\$230	\$140
9 Sheraton Inner Harbor		\$229	\$249/\$269	\$140

A valid government ID is required at check-in for all government-rate rooms.

ECONOMY/STUDENT HOUSING

Radisson Hotel Baltimore Downtown-Inner Harbor

101 West Fayette Street
Baltimore, MD 21201

A limited number of double occupancy rooms will be available July 29–August 3.

Room Rate: \$149 plus taxes per room (\$74.50 per night, per person; two people per room)

Reservations must be made with Radisson Hotel Baltimore directly. The ASA cannot make or accept housing reservations and does not have a roommate matching service.

To Make a New Reservation (student block only)

1. Book online by visiting ww2.amstat.org/meetings/jsm/2017/housing.cfm.
2. Book by phone by calling (410) 752-1100. Ask for ASA JSM Students Group Block or use group code: ASASTU

To Update/Edit Existing Reservation (student block only)

1. Email the Radisson directly (preferred) at lgill@radissonbaltimoreharbor.com.
2. Call LaShonda Gill at (410) 385-6570.

REGISTRATION INFORMATION

THREE WAYS TO REGISTER



Online www.amstat.org/jsmregistration



Mail JSM Registration, 732 North Washington St., Alexandria, VA 22314-1943



Fax (703) 684-2037 (*Please fax both sides of form.*)

What Can I Do with My Registration?	Conference Registrant	Guest
Program Book and Conference Bag	x	
Technical Sessions	x	
Exhibit Hall	x	x
Sunday Opening Mixer	x	x
Tuesday Night Dance Party	x	x
JSM Proceedings (available online in early 2018)	x	
Professional Development Offerings	\$	
Roundtables & Speakers with Lunch	\$	
Career Service	\$	

PStat®, GStat, and A.Stat. Discounts on Professional Development Offerings

Accredited members in good standing with the ASA or SSC will receive a 20% discount on Professional Development (PD) courses and workshops. To take advantage of this discount when registering by fax or mail, check the appropriate box in the PD section indicating your accreditation and calculate your discount where asked. To take advantage of this discount when registering online, select the registration level that contains "PStat." Your discount will be calculated automatically.

Payment

Payment via credit card, check, or money order must accompany registration. We are unable to accept purchase orders. Make your check or money order payable to American Statistical Association in U.S. funds drawn on a U.S. bank. The ASA Federal ID is 53-0204661.

Registration Confirmations

Registration confirmations will be emailed to all preregistered attendees as soon as the registration and payment

are processed. Be sure to provide a valid email address and set your spam-blocking filters to allow emails sent from addresses containing "@amstat.org."

Cancellations/Substitutions/Refunds

All cancellations and substitutions must be submitted in writing. Email: jsm@amstat.org; Fax: (703) 684-2037; Mail: JSM Registration, ASA, 732 N. Washington St., Alexandria, VA 22314-1943

Registration fees for participants (speakers/panelists/discussants/chairs/organizers/poster presenters) are nonrefundable. Substitutions may be made at no penalty.

For general registrations and add-on items:

Cancellations received by 5:00 p.m. EDT on June 1, 2017, incur a cancellation fee of 20% of each item canceled.

Cancellations received by 5:00 p.m. EDT on July 20, 2017, incur a cancellation fee of 40% of each item canceled.

Cancellations received after 5:00 p.m. EDT on July 20, 2017, will not be refunded.

Make sure to read the Meetings Conduct Policy at www.amstat.org/jsmregistration.

JSM 2017 REGISTRATION FORM

Register by fax: (703) 684-2037 or mail: 732 N. Washington St., Alexandria, VA 22314-1943. Registrations are not accepted by telephone or email.

REGISTRATION INFORMATION

Individual ASA ID# (if known): _____

First Name _____ Middle Initial _____ Last/Family Name _____

Badge Name (if different from First Name) _____

Company/Organization _____

Address _____

City _____ State/Province _____ ZIP/Postal Code _____

Country (Non-U.S.) _____

Phone _____ Email _____

In case of emergency, list the name and phone number of the person we should contact (remains confidential).

Emergency Contact's Name _____ Phone _____

Membership(s): (check all that apply)

☐ ASA ☐ ENAR ☐ ICSA ☐ IISA ☐ IMS ☐ ISBA ☐ ISI ☐ KISS ☐ RSS ☐ SSC ☐ WNAR

SOCIAL EVENTS

For STUDENT MEMBER REGISTRANTS ONLY:

☐ YES! I will attend the Student Mixer on Monday, July 31, at 6:00 p.m.

For PSTAT®/GSTAT:

☐ YES! I will attend the ASA PStat®/GStat Reception on Wednesday, August 2, at 6:00 p.m.

CHECK ALL THAT APPLY:

☐ I am a participant (speaker/panelist/discussant/chair/organizer/poster presenter).

☐ I am a first-time JSM attendee.

☐ I have a disability that requires special services (attach a statement of your needs).

We cannot guarantee an accommodation that is not made during early registration or regular registration.

☐ Update my ASA customer information with this contact information.

☐ Exclude my information from contact lists managed by the ASA for use by outside entities, including offers for onsite receptions or activities and booth giveaways.

☐ Exclude my name from the conference attendee roster that will appear on the conference website.

MEETING REGISTRATION FEES

All fees are in U.S. dollars (mark the appropriate box).

	Early May 1–June 1	Regular June 2–29	Late June 30–July 20
Member ♦	<input type="checkbox"/> \$435	<input type="checkbox"/> \$485	<input type="checkbox"/> \$535
New ASA Member ♦♦	<input type="checkbox"/> \$570	<input type="checkbox"/> \$620	<input type="checkbox"/> \$670
Nonmember	<input type="checkbox"/> \$665	<input type="checkbox"/> \$740	<input type="checkbox"/> \$815
Student Member ♦	<input type="checkbox"/> \$110	<input type="checkbox"/> \$110	<input type="checkbox"/> \$110
K–12 Teacher	<input type="checkbox"/> \$ 80	<input type="checkbox"/> \$ 80	<input type="checkbox"/> \$ 80
Senior Member ♦	<input type="checkbox"/> \$190	<input type="checkbox"/> \$190	<input type="checkbox"/> \$190

♦ Must have an active membership in one of the sponsoring societies and indicate it on your registration where asked

♦♦ Includes discounted first-year ASA dues; not available to renewing or recently lapsed members

MEETING REGISTRATION FEE \$ _____

ADD-ONS (see reverse side)

TOTAL Professional Development Cost \$ _____

TOTAL Roundtable/Speaker Cost \$ _____

TOTAL Guest Cost \$ _____

TOTAL Career Service Cost \$ _____

TOTAL REGISTRATION + ADD-ONS \$ _____

See Page 38 for cancellation policy.

CREDIT CARD OR CHECK PAYMENT INFORMATION (NOTE: We are unable to accept purchase orders as payment.)

☐ Check or money order enclosed payable to American Statistical Association (U.S. funds on a U.S. Bank)

Credit Card ☐ Amex ☐ Discover ☐ MasterCard ☐ VISA

Card Number _____ Expiration Date ____ / ____ Security Code _____

Name of Cardholder _____

Cardholder's Signature _____

PROFESSIONAL DEVELOPMENT Prices are for May 1–June 29/June 30–July 20

CONTINUING EDUCATION COURSES

Member Nonmember Student

Saturday, July 29

CE_01C	<input type="checkbox"/> \$675/920	<input type="checkbox"/> \$825/1120	<input type="checkbox"/> \$390/530
CE_02C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_03C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_04C	<input type="checkbox"/> \$415/555	<input type="checkbox"/> \$545/725	<input type="checkbox"/> \$260/345
CE_05C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_06C	<input type="checkbox"/> \$415/555	<input type="checkbox"/> \$545/725	<input type="checkbox"/> \$260/345
CE_07C	<input type="checkbox"/> \$245/335	<input type="checkbox"/> \$320/430	<input type="checkbox"/> \$150/200

Sunday, July 30

CE_08C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_09C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_10C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_11C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_12C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_13C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320

Monday, July 31

CE_14C	<input type="checkbox"/> \$245/335	<input type="checkbox"/> \$320/430	<input type="checkbox"/> \$150/200
CE_15C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_16C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_17C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_18C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_19C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_20C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_21C	<input type="checkbox"/> \$245/335	<input type="checkbox"/> \$320/430	<input type="checkbox"/> \$150/200

Tuesday, August 1

CE_22C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_23C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_24C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_25C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_26C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
CE_27C	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320

CAREER SERVICE

Applicant Options—Includes online access to job postings. To interview onsite, you must register for JSM.

	ASA Member	Nonmember
Student	<input type="checkbox"/> \$75	<input type="checkbox"/> \$125
Nonstudent	<input type="checkbox"/> \$150	<input type="checkbox"/> \$225

TOTAL CAREER SERVICE COST \$_____

COMPUTER TECHNOLOGY WORKSHOPS
\$60 / 75 EACH

Wednesday, August 2

<input type="checkbox"/> CE_29T	<input type="checkbox"/> CE_32T	<input type="checkbox"/> CE_35T	<input type="checkbox"/> CE_38T
<input type="checkbox"/> CE_30T	<input type="checkbox"/> CE_33T	<input type="checkbox"/> CE_36T	<input type="checkbox"/> CE_39T
<input type="checkbox"/> CE_31T	<input type="checkbox"/> CE_34T	<input type="checkbox"/> CE_37T	

PERSONAL SKILLS DEVELOPMENT OFFERINGS

Member Nonmember Student

Saturday, July 29, and Sunday, July 30 (spans two days)

CE_40P	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
--------	------------------------------------	------------------------------------	------------------------------------

Saturday, July 29, and Sunday, July 30 (spans two days)

CE_41P	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
--------	------------------------------------	------------------------------------	------------------------------------

Sunday, July 30

CE_42P	Free event. No registration required.
--------	---------------------------------------

Sunday, July 30

CE_43P	Free event. No registration required.
--------	---------------------------------------

Monday, July 31, and Tuesday, August 1 (spans two days)

CE_44P	<input type="checkbox"/> \$390/530	<input type="checkbox"/> \$520/700	<input type="checkbox"/> \$235/320
--------	------------------------------------	------------------------------------	------------------------------------

I am PStat®, GStat, or A.Stat. accredited by:

☐ ASA ☐ SSC

Accredited members of the ASA or SSC (PStat®, GStat, A.Stat.) enjoy a 20% discount on Professional Development offerings.

PROFESSIONAL DEVELOPMENT SUBTOTAL \$_____

20% PStat®, GStat, or A.Stat. discount \$_____

**TOTAL PROFESSIONAL
DEVELOPMENT COST \$_____**

GUEST BADGES \$65 per guest.

Enter names below. Fee includes Sunday Opening Mixer, Tuesday Night Dance Party, and entrance into exhibit hall. Session attendance is not included.

Guest Name

Guest Name

Guest Name

TOTAL GUEST COST \$_____

ROUNDTABLES

A.M. ROUNDTABLES

\$20 each; includes continental breakfast. Indicate your first and second choices by marking 1 and 2.

Monday July 31	Tuesday August 1	Wednesday August 2
ML01_____	TL01_____	WL01_____
ML02_____	TL02_____	WL02_____
ML03_____	TL03_____	WL03_____
ML04_____	TL04_____	WL04_____
ML05_____	TL05_____	WL05_____
ML06_____	TL06_____	WL06_____
ML07_____	TL07_____	

P.M. ROUNDTABLES

\$45 each; includes meal. Indicate your first and second choices by marking 1 and 2.

Sunday July 30	Monday July 31	Tuesday August 1	Wednesday August 2
SL01____	ML08____	TL08____	WL07____
	ML09____	TL09____	WL08____
	ML10____	TL10____	WL09____
	ML11____	TL11____	WL10____
	ML12____	TL12____	WL11____
	ML13____	TL13____	WL12____
	ML14____	TL14____	WL13____
	ML15____	TL15____	WL14____
	ML16____	TL16____	WL15____
	ML17____	TL17____	WL16____
	ML18____	TL18____	WL17____
	ML19____	TL19____	WL18____
	ML20____	TL20____	WL19____
	ML21____	TL21____	WL20____
	ML22____	TL22____	WL21____
	ML23____	TL23____	WL22____
	ML24____	TL24____	WL23____
	ML25____	TL25____	WL24____
	ML26____	TL26____	WL25____
	ML27____	TL27____	WL26____
	ML28____	TL28____	WL27____
			WL28____

MEAL CHOICE: ☐ Regular ☐ Vegetarian

**TOTAL ROUNDTABLES/
SPEAKER COST \$_____**

**Don't miss your
chance to participate
in the largest gathering
of statisticians and
data scientists held
in North America!**

Register online at
www.amstat.org/jsmregistration.

KEY DATES

.....

MAY 1 (11:00 a.m.)
Registration and housing open

JUNE 1
Early registration deadline

JUNE 29
Regular registration deadline

JUNE 30
Housing deadline

JULY 20
Late registration deadline

Sponsored by:

- * American Statistical Association
 - * International Biometric Society (ENAR and WNAR)
 - * Institute of Mathematical Statistics
 - * Statistical Society of Canada
 - International Chinese Statistical Association
 - International Indian Statistical Association
 - Korean International Statistical Society
 - International Society for Bayesian Analysis
 - Royal Statistical Society
 - International Statistical Institute
- (*indicates a JSM founding society)*

American Statistical Association
732 North Washington Street
Alexandria, VA 22314-1943 USA

Non-Profit Org.
U.S. Postage
PAID
Alexandria,
Virginia
Permit No. 361

Thank You, JSM 2017 Sponsors!

PLATINUM



GOLD



SILVER



It's not too late to support JSM 2017!
Find out more at www.amstat.org/jsmsponsors.