

The American Statistical Association\* • Institute of Mathematical Statistics\* • International Biometric Society (ENAR and WNAR)\* International Chinese Statistical Association • International Indian Statistical Association • International Society for Bayesian Analysis International Statistical Institute • Korean International Statistical Society • Statistical Society of Canada\* • Royal Statistical Society (\*indicates the founding societies of JSM)

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## **JSM QUICK GUIDE**

#### You may have noticed the printed program is lighter this year.

It's not your imagination! As JSM has grown and attendees have increasingly turned to their smart phones and tablets for information, we realized a new JSM Quick Guide would help you more quickly find the general information you're looking for, such as floor plans, featured events, and the overall JSM schedule. The complete program can be found online and in the JSM app, where you can even build a custom schedule and find up-to-date details for JSM's more than 600 sessions. By developing each medium with its strengths and weaknesses in mind, we aim to offer attendees a more useful print and online program.



INSIDE THE JSM APP Take a closer look at the JSM App on Page 5.



SM SCHEDULE AT A GLANCE

#### SATURDAY JULY 29, 2017

**Registration** 7:30 a.m. – 6:00 p.m.

Professional Development\* 8:00 a.m. – 5:30 p.m.

Career Service\* (Registration Only) 9:00 a.m. – 5:00 p.m.

#### **SUNDAY** JULY 30, 2017

**Registration** 7:30 a.m. – 8:30 p.m.

Professional Development\* 8:00 a.m. – 5:00 p.m.

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

**EXPO 2017** 1:00 p.m. – 6:00 p.m.

**Career Service\*** 1:00 p.m. – 6:00 p.m.

**Technical (Paper and Panel) Sessions** 2:00 p.m. – 5:50 p.m.

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

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

#### MONDAY JULY 31, 2017

A.M. Roundtable Discussions\* 7:00 a.m. – 8:15 a.m.

**Registration** 7:30 a.m. – 6:00 p.m.

Professional Development\* 8:00 a.m. – 5:00 p.m.

**Career Service\*** 8:00 a.m. – 5:30 p.m.

**Technical (Paper, Panel, and Poster) Sessions** 8:30 a.m. – 3:50 p.m.

**EXPO 2017** 9:00 a.m. – 5:30 p.m.

P.M. Roundtable Discussions\* 12:30 p.m. – 1:50 p.m.

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

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

**IMS Presidential Address** 8:00 p.m. – 9:30 p.m.

#### TUESDAY AUGUST 1, 2017

A.M. Roundtable Discussions\* 7:00 a.m. – 8:15 a.m.

**Registration** 7:30 a.m. – 6:00 p.m.

Professional Development\* 8:00 a.m. – 5:00 p.m.

**Career Service\*** 8:00 a.m. – 5:30 p.m.

**Technical (Paper, Panel, and Poster) Sessions** 8:30 a.m. – 3:50 p.m.

**EXPO 2017** 9:00 a.m. – 5:30 p.m.

P.M. Roundtable Discussions\* 12:30 p.m. – 1:50 p.m.

**Deming Lecture** 4:00 p.m. – 5:50 p.m.

**Wald Lecture** 4:00 p.m. – 5:50 p.m.

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

**JSM Dance Party** 9:30 p.m. – 12:00 a.m.

#### WEDNESDAY AUGUST 2, 2017

A.M. Roundtable Discussions\* 7:00 a.m. – 8:15 a.m.

**Registration** 7:30 a.m. – 4:30 p.m.

**Career Service\*** 8:00 a.m. – 2:30 p.m.

Professional Development\* 8:00 a.m. – 5:00 p.m.

**Technical (Paper, Panel, and Poster) Sessions** 8:30 a.m. – 3:50 p.m.

**EXPO 2017** 9:00 a.m. – 2:30 p.m.

P.M. Roundtable Discussions\* 12:30 p.m. – 1:50 p.m.

**COPSS Awards and Fisher Lecture** 4:00 p.m. – 5:50 p.m.

#### THURSDAY AUGUST 3, 2017

**Registration** 7:30 a.m. – 10:30 a.m.

**Technical (Paper and Panel) Sessions** 8:30 a.m. – 12:20 p.m.

# THANK YOU JSN2017 BALTIMORE SPONSORS





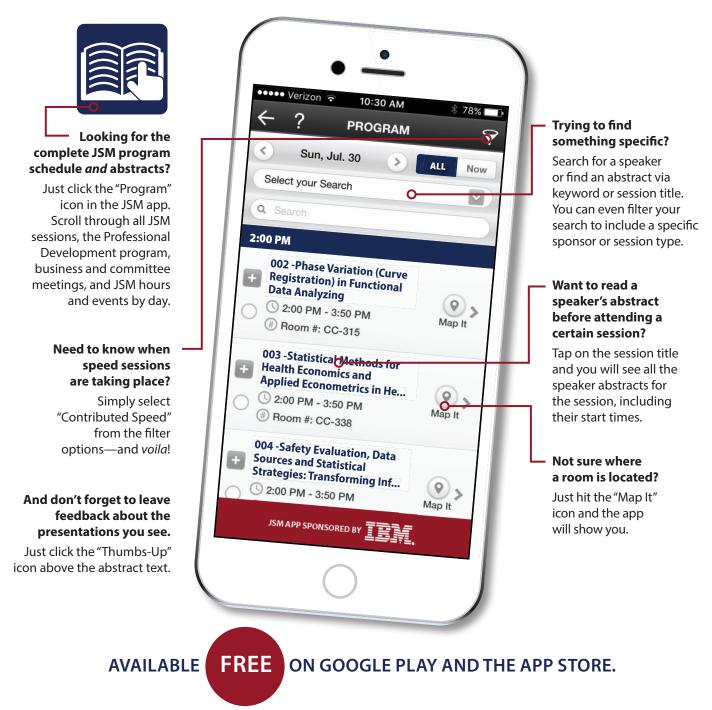
## **JSM APP**

Explore the program with the official **JSM 2017 app!** Get last-minute updates, create your own schedule, play the JSM Challenge for prizes, and more.



#### **GET IT!**

Find links for all versions of the app at ww2.amstat.org/ jsmapp.





## **JSM CHALLENGE GAME**



\*A web version is available for non-Android and noniOS devices. www.amstat. org/jsmapp Take the JSM Challenge via the JSM 2017 app!\* Earn points for each question and task you complete to win prizes at the end of the week. The JSM Challenge runs Saturday through Thursday, with new questions each day. Prizes will be awarded to the top five participants on the leaderboard within the JSM app as of noon on Thursday.



Challenge prizes include things such as the WONDERBOOM portable and waterproof Bluetooth speaker (above), Amazon gift cards, GoPro cameras, and more!

#### **Convention Housing**

| Hilton Baltimore (HQ)                             | (443) 573-8700 |
|---|----------------|
| Days Inn Inner Harbor                             | (410) 576-1000 |
| Holiday Inn Inner Harbor                          | (410) 685-3500 |
| Hotel Monaco                                      | (443) 692-6170 |
| Hyatt Regency Baltimore                           | (410) 528-1234 |
| Marriott Inner Harbor                             | (410) 962-0202 |
| Radisson Hotel Baltimore<br>Downtown Inner Harbor | (410) 752-1100 |
| Renaissance Harborplace Hotel                     | (410) 547-1200 |
| Sheraton Inner Harbor                             | (410) 962-8300 |
|   |                |

#### **SOCIAL MEDIA**



Join the Joint Statistical Meetings conversation by using **#JSM2017** on social media. Also follow the official ASA social media accounts for news, pictures, and last-minute updates.

- www.facebook.com/ AmstatNews
- www.twitter.com/ AmstatNews

• www.instagram.com/ AmstatNews

community.amstat.org

WIFI BALTIMORE CONVENTION CENTER

**Network:** JSM2017 No password needed

HILTON BALTIMORE Network: Hilton MTG Password: JSM2017

## **DOCENT PROGRAM**

Questions? New to JSM? Find a JSM docent to help you learn the ropes. JSM docents are experienced JSM attendees wearing an **orange button** (pictured) who can help you make the most of your experience. JSM DOCENT AND HERE TO HELP!

#### Emergency Telephone Messages

In case of emergency, messages may be left during registration hours by calling (410) 649-7439. We will attempt to contact the registrant using the contact information provided in their registration.

## Assistance for Those with Disabilities

Please contact a staff member at the Help Desk in the registration area if



you have a disability that may impede your participation.

#### **Child Care**

Kiddie Corp is the official child care provider for JSM 2017. Arrangements should have been made in advance. Please contact Kiddie Corp at (858) 455-1718 or *info@kiddiecorp. com* for any questions or possible availability.

## Policies

**Electronic Devices** 

All cell phones, pagers, and other electronic devices should be silenced before attending any session or meeting.

#### Smoking

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

#### Recycling

Please use the paper, plastic, and aluminum trash containers located throughout the convention center. Also, participating in the towel and linen programs at area hotels makes a significant difference in the amount of energy and water used. Finally, place JSM badges and badge holders in one of the designated bins when leaving.

#### JSM Proceedings

Eligibility guidelines and author instructions for JSM 2017 presenters are available at ww2.amstat. org/meetings/jsm/2017/ submissions.cfm#proceedings. The submission site will open August 29 and close October 1.

#### Meetings Conduct Policy\*

As a professional society, the American Statistical Association (ASA) is committed to providing an atmosphere that encourages the free expression and exchange of ideas. Consistent with this commitment, it is the policy of the ASA that all participants in ASA activities will enjoy a welcoming environment free from unlawful discrimination, harassment, and retaliation. All participants in ASA activities also agree to comply with all rules and conditions of the activities, which are subject to change without notice.



\*Please read the complete Conduct Policy at www. amstat.org/ meetings/jsm/2017/ conductpolicy.cfm.



## **HOURS OF OPERATION**

#### Registration and ASA Membership/ Help Desk/Press Desk

#### **CC-Charles St. Lobby**

JSM registration includes the JSM Quick Guide; access to the exhibit hall; and admission to the Opening Mixer, Student Mixer (students only), and JSM Dance Party.

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

#### Speaker Management Room CC-307

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

| Sunday                | 9:00 a.m. – 7:00 p.m.  |
|-----------------------|------------------------|
| Monday –<br>Wednesday | 7:00 a.m. – 6:00 p.m.  |
| Thursday              | 7:00 a.m. – 10:30 a.m. |

#### Career Service

CC-Hall C

| Saturday         | 9:00 a.m. – 5:00 p.m.<br>(job posting and résumé<br>submission only) |
|------------------|--|
| Sunday           | 1:00 p.m. – 6:00 p.m.  |
| Monday – Tuesday | 8:00 a.m. – 5:30 p.m.  |
| Wednesday        | 8:00 a.m. – 2:30 p.m. (onsite registration closes at noon)           |

#### EXPO 2017 CC-Halls A&B

Visit publishers, software companies, and recruiters. See state-of-the-art products designed for the statistical community. Make sure to check out the coffee, refreshment, and lunch options available each day.

| Sunday           | 1:00 p.m. – 6:00 p.m.,<br>8:30 p.m. – 10:30 p.m. |
|------------------|--|
| Monday – Tuesday | 9:00 a.m. – 5:30 p.m.                            |
| Wednesday        | 9:00 a.m. – 2:30 p.m.                            |

#### Cyber Center

#### CC-Charles St. Lobby, Level 200

Send email, print boarding passes, and check the JSM online program using available computers and printers.

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

#### ASA Store (inside EXPO 2017) CC-Halls A&B

The ASA Store is the place for your official JSM 2017 T-shirt and other JSM and ASA souvenirs.

| Sunday           | 1:00 p.m. – 6:00 p.m.,<br>8:30 p.m. – 10:30 p.m. |
|------------------|--|
| Monday – Tuesday | 9:00 a.m. – 5:30 p.m.                            |
| Wednesday        | 9:00 a.m. – 2:30 p.m.                            |

#### Baltimore Restaurant & Tourism Information Center

#### CC-Charles St. Lobby, Level 200

Operated by Visit Baltimore, this center provides extensive information about and referrals for restaurants and sightseeing. Stop by the desk and pick up current maps and travel information.

Saturday – Wednesday 10:00 a.m. – 5:00 p.m.



## **SPECIAL EVENTS**

## FIRST TIMER

#### JSM First-Time Attendee Orientation and Reception

Sunday, July 30, 12:30 p.m. – 2:00 p.m. CC-Ballroom II

#### CC-Ballroom II

Join fellow first-timers at this orientation reception and learn how to get involved in JSM. Hear about the benefits of membership and get tips about the conference.

#### JSM Opening Mixer and Invited Poster Session

Sunday, July 30, 8:30 p.m. – 10:30 p.m.

#### **CC-Halls A&B**

All conference attendees are encouraged to come together for the kick-off social event of JSM.

#### ASA Awards Celebration and Editor Appreciation

Sunday, July 30, 7:30 p.m. – 8:30 p.m.

#### CC-309

The Sunday night awards ceremony recognizes retiring editors and honorees of annual ASA awards, section awards, and scholarships.

#### **JSM Student Mixer**

Sponsored by Monsanto

Monday, July 31, 6:00 p.m. – 7:30 p.m.

#### Hilton Baltimore-Key Ballroom 7-10

The Student Mixer provides an opportunity for students to join their contemporaries for a fun-filled time.

#### ASA Longtime Member Reception (by invitation only) Sponsored by Westat

Sponsored by Westur

Monday, July 31, 6:30 p.m. – 7:30 p.m.

#### Hilton Baltimore-Key Ballroom 5

This annual reception is held to honor ASA members who have shown dedication to the association for 35 or more years. We expect more than 150 of our most faithful and distinguished members to attend.

#### **JSM Dance Party**

Tuesday, August 1, 9:30 p.m. – 12:00 a.m.

#### CC-Ballroom II

A fun highlight of JSM, the dance party is held right after the ASA President's Address and Founders & Fellows Recognition. There are snacks, a cash bar, and music!



#### The JSM Opening Mixer is in the EXPO!

Sunday from 8:30 p.m.–10:30 p.m. Some exhibitors will have refreshments. Look for more information inside the EXPO.





Join us for featured events throughout the week that give 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 a few 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 they last) and mingle with other attendees.

# **BALTIMORE**

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.

#### 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.



## JSM PHOTO BOOTH

#### 1:30 p.m.

#### Popcorn Break, sponsored by XLSTAT

Come by for a little snack. Feel like spicing things up? Try adding Old Bay or Truffle Salt!

3:30 p.m.

#### Baltimore Microbrew Tasting

Come taste a variety of Baltimore Heavy Seas microbrews (while supplies last).



#### Tuesday, August 1

10:00 a.m.

#### **Get Your JSM Energy Fix**

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

Come by for 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 will be available while supplies last.









#### MONDAY



#### IMS Medallion Lecture I

8:30 a.m.

Design and Analysis of Randomized Experiments on Networks **Edoardo M. Airoldi** Harvard University



#### IMS Blackwell Lecture 10:30 a.m.

CC-310

Information-Theoretic Methods in Statistics: From Privacy to Optimization **Martin J. Wainwright** University of California, Berkeley



IMS Medallion Lecture II 2:00 p.m.

CC-310 State-Space Modeling of Dynamics Processes in Neuroscience

**Emery N. Brown** Massachusetts Institute of Technology



ASA President's Invited Address 4:00 p.m. CC-Hall D Jo Craven McGinty The Wall Street Journal



IMS Presidential Address and Awards Ceremony 8:00 p.m.

**CC-Ballroom I** 

Teaching Statistics in the Age of Data Science

**Jon A. Wellner** University of Washington

#### WEDNESDAY



IMS Medallion Lecture V

8:30 a.m.

#### CC-310

On the Semiparametric What's Bernstein-Von Mises Happer Theorem in Regular in Select and Nonregular Inferen Models **Emman** 

**Judith N. Rousseau** Université Paris Dauphine



Wald Lecture II 10:30 a.m.

#### CC-Ballroom I

What's Happening in Selective Inference II? Emmanuel J. Candes Stanford

University



COPSS Awards & Fisher Lecture

4:00 p.m.

#### CC-Hall D

The Importance of Statistics: Lessons from the Brain Sciences

**Robert E. Kass** Carnegie Mellon University



Wald Lecture III 8:30 a.m. CC-310

What's Happening in Selective Inference III?

**Emmanuel J. Candes** Stanford University

12 **JSM**2017



#### **TUESDAY**



#### IMS Medallion Lecture III

8:30 a.m. **CC-310** 

Coverage of Nonparametric Credible Sets

Subhashis Ghoshal North Carolina State University



IMS Medallion Lecture IV

#### 2:00 p.m. **CC-Ballroom I**

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

#### Mark Girolami Imperial College London



ASA Deming Lecture 4:00 p.m.

### CC-Hall D

A Rake's Progress Revisited **Fritz Scheuren** NORC at the University of Chicago



Wald Lecture I 4:00 p.m.

What's Happening in Selective Inference I? Emmanuel J. Candes

Stanford

University

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

#### CC-Hall D

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

## INTRODUCTORY OVERVIEW LECTURES

#### Monday, July 31, 10:30 a.m. **CC-Ballroom I**

Session 132 – Computer Age Statistical Inference

#### Monday, July 31, 2:00 p.m. **CC-Ballroom I**

Session 200 – Data Science: A Collaboration of Statistics and Computer Science

#### Tuesday, August 1, 8:30 a.m. **CC-Ballroom I**

Session 263 – Network Data, Modeling, Analysis, and Applications

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

#### CC-Ballroom I

Session 435 – Quantile Regression

## LATE-BREAKING SESSIONS

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

#### **CC-Ballroom I**

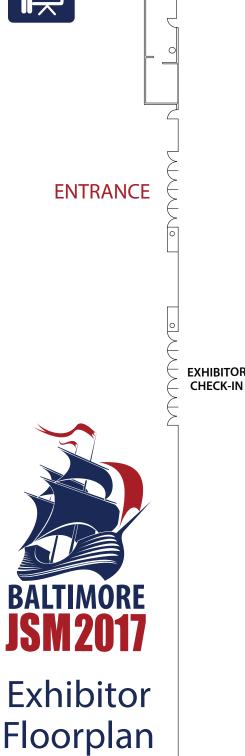
Session 90 – Late-Breaking Session I: National Governments, Coerced Narratives, Creative Language, and Alternative Facts

#### Tuesday, August 1, 10:30 a.m.

#### CC-Ballroom I

Session 305 – Late-Breaking Session II: Hindsight Is 20/20 and for 2020: Lessons from 2016 Elections





**LEVEL 100** HALL A & B

|  |  | 100 | 102 | 104 | 106 | 108 | 110 |
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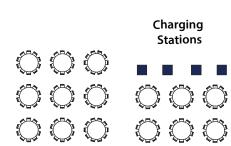
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| 301 | 303 | 305 | 307 | 309 | 311 | 313 |
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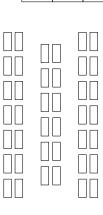
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| Ŏ | 702 | 704 | 706 | 708 | 710 | 712 |



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122

114

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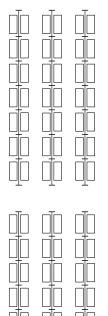
822

824

830

832

SPOTLIGH, BALTIMORY



Data Art

Show



Exhibitor Lounge

Concession

| Exhibitor Name                                     | Booth Number         |
|--|----------------------|
| AAAS Science & Technology                          |                      |
| Policy Fellowships                                 | 209                  |
| Addinsoft XLSTAT                                   | 311                  |
| Advanced Clinical                                  | 507                  |
| Amazon.com   | 816                  |
| American Statistical<br>Association                | 603, 605             |
| Apex Life Sciences                                 | 500                  |
| Aptech Systems, Inc.                               | 503                  |
| ASA Store  | 600, 602, 604        |
| ASA-SIAM   | 609                  |
| Berry Consultants                                  | 611                  |
| Bureau of Economic Analysis                        | 403                  |
| Bureau of Labor Statistics                         | 120                  |
| Cambridge University Press                         | 502, 504             |
| Clindata Insight, Inc.                             | 509                  |
| Course.Work  | 710                  |
| Covance  | 810                  |
| CRC Press,<br>Taylor & Francis Group               | 101,103, 200,<br>202 |
| Cytel Inc.   | 513, 511             |
| Duke Clinical Research<br>Institute                | 818                  |
| Eli Lilly and Company                              | 122                  |
| Enovative Technologies                             | 708                  |
| Experis Business Analytics                         | 612                  |
| Facebook   | 806                  |
| FDA Center<br>for Tobacco Products                 | 800                  |
| Frontline Systems, Inc.                            | 313                  |
| GCE Solutions                                      | 308                  |
| Green Key Resources                                | 306                  |
| IBM  | 413                  |
| Institute of Mathematical<br>Statistics (IMS)      | 608                  |
| JMP Software from SAS                              | 301, 303, 305        |
| JSM 2018   | 607                  |
| Liberty Mutual Insurance                           | 814                  |
| Lyft   | 109                  |
| Mathematica Policy Research                        | 712                  |
| Metrum Research Group                              | 105                  |
| Minitab  | 201, 203             |
| National Center for Education<br>Statistics (NCES) | 300                  |
| National Center for Health<br>Statistics (NCHS)    | 102                  |
|  |                      |

| Exhibitor Name                                       | Booth Number  |
|--|---------------|
| National Institute of<br>Statistical Sciences (NISS) | 104           |
| National Science Foundation                          | 210           |
| National Security Agency                             | 113, 111      |
| NCSS   | 401           |
| Netflix  | 107           |
| Office of Justice Programs (OJP)                     | 802           |
| Oxford University Press                              | 207           |
| Pearson  | 108,110       |
| Penfield Search Partners                             | 613           |
| Penn State University                                | 808           |
| Personify  | 804           |
| Project Euclid                                       | 505           |
| RStudio  | 100           |
| Sage Publishing                                      | 302, 304      |
| Salford Systems                                      | 205           |
| SAS Books  | 307, 309      |
| SAS Education Practice                               | 406, 408      |
| SAS R&D  | 400, 402, 404 |
| SIAM   | 609           |
| Springer   | 310, 312      |
| STAT-HAWKERS   | 114           |
| Stata Press  | 506           |
| StataCorp LP   | 508, 510, 512 |
| Statistical Society<br>of Canada (SSC)               | 606           |
| Statistics & Data<br>Corporation (SDC)               | 704           |
| Statistics.com Institute<br>for Statistics Education | 405           |
| Statpoint Technologies, Inc.                         | 212           |
| Takeda Pharmaceuticals                               | 213           |
| Tech Observer  | 206           |
| TechData Service Company                             | 211           |
| The Lotus Group LLC                                  | 204           |
| Two Sigma Investments, LP                            | 106           |
| U.S. Census Bureau                                   | 410, 412      |
| U.S. Food and Drug<br>Administration                 | 610           |
| University of<br>Kansas Medical Center               | 208           |
| USDA/NASS  | 706           |
| Westat   | 702           |
| Wiley  | 407, 409, 411 |
| Wolfram  | 501           |





The JSM Opening Mixer is in the Expo! Sunday from 8:30 p.m. – 10:30 p.m. Some exhibitors will have refreshments. Look for more information inside the EXPO.

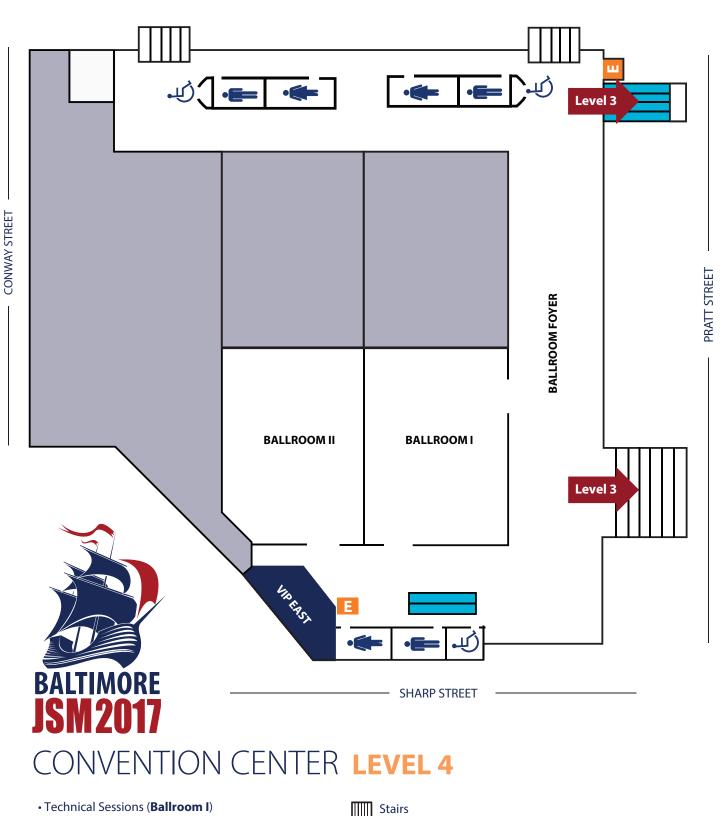


Data Art Show Explore the *art* in data art with the JSM exhibit featuring data artists located on the EXPO floor!









Escalators

Elevator Restrooms

HOWARD STREET -

- First-Time Attendee Reception (Ballroom II)
- Roundtables (Ballroom II)
- JSM Dance Party (Ballroom II)



## ADDPLAN neo

Designing and executing an effective adaptive design not only requires your statistical expertise, but also demands efficient and reliable statistical software.

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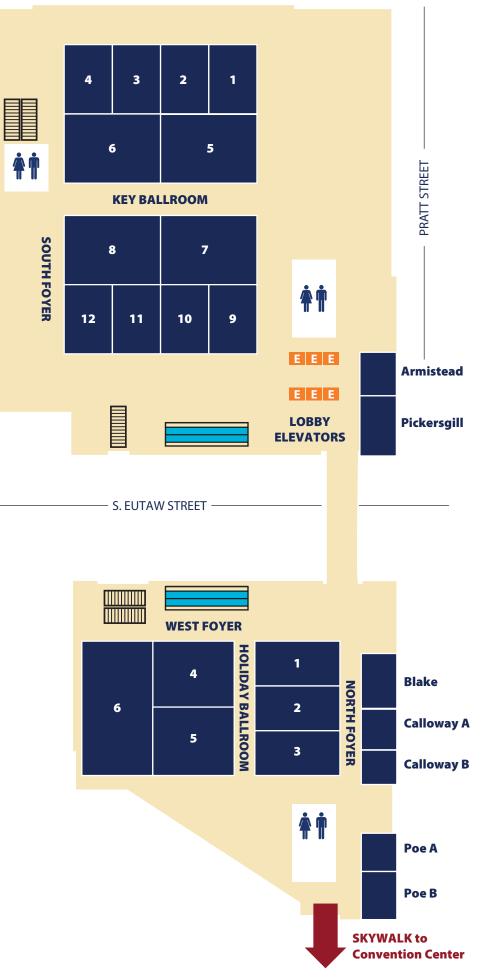
#### **Professional Development**

Holiday Ballroom 1-6Key Ballroom 6, 8, 11, 12



#### Skywalk to the Convention Center

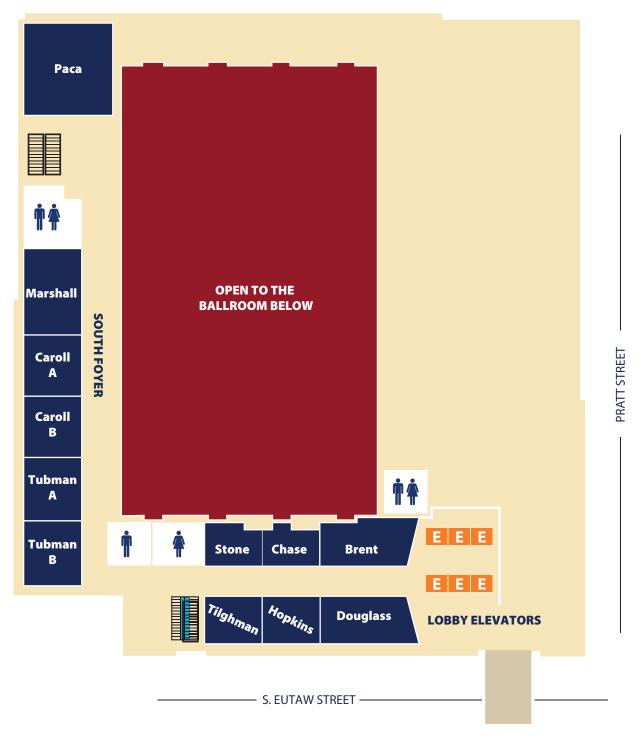






## HILTON BALTIMORE LEVEL 3

|    | Stairs     |
|----|------------|
|    | Escalators |
| Ε  | Elevator   |
| ŧİ | Restrooms  |



# $\ell(\boldsymbol{\beta}) = \sum_{i=1}^{N} y_i \sum_{k=0}^{K} x_{ik} \beta_k - \log(1 + e^{\sum_{k=0}^{K} x_{ik} \beta_k})$

We find connections in all the world's data. These insights guide investment strategies that support retirements, fund research, advance education and benefit philanthropic initiatives. So, if harnessing the power of math, data and technology to help people is something that excites you, let's connect.

are

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**To Register** Visit the main JSM registration area and ask to add the Career Service

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#### Applicant Fees Student Registration ASA Student Member: \$75 Nonmember: \$125

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employers? The 2017 Career Service, located in Hall C of the Baltimore Convention Center, will give you the opportunity to research job postings and contact employers. Access is for registered applicants and employers only, and interviews are by appointment.

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- Lawrence Livermore
  National Laboratory
- Monsanto
- National Security Agency
- Precision for Medicine

- Sandia National Laboratories
- Southern Methodist University
  Statistical Science
- Sunrise Futures, LLC
- U.S. Census Bureau
- University of Pittsburgh

\* As of June 12



All Professional Development courses are at the **Hilton**, **Second Floor**. An additional fee is charged for PD offerings. To add a course, go to the main registration desk.

## **CONTINUING EDUCATION** Holiday Ballroom = HB Key Ballroom = KB

|                  | Course | Time                     | Room  | Instructor(s)  | Title   |
|------------------|--------|--------------------------|-------|--|---|
| *                | CE_01C | 8:30 a.m. –<br>5:00 p.m. | HB-5  | Garrett Grolemund  | Master the Tidyverse: An Introduction<br>to R for Data Science                                  |
|                  | CE_02C | 8:30 a.m. –<br>5:00 p.m. | HB-6  | Geert Molenberghs  | Longitudinal and Incomplete Data  |
| Y 29             | CE_03C | 8:30 a.m. –<br>5:00 p.m. | HB-4  | Peter Thall/<br>Ying Yuan  | Bayesian Designs for Phase I-II Clinical Trials   |
| SATURDAY JULY 29 | CE_04C | 8:30 a.m. –<br>5:00 p.m. | KB-8  | Dimitris Rizopoulos  | An Introduction to the Joint Modeling of Longitudinal and Survival Data, with Applications in R |
| rURD/            | CE_05C | 8:30 a.m. –<br>5:00 p.m. | HB-1  | James Albert   | Bayesian Thinking: Fundamentals, Computation, and Multilevel Modeling                           |
| SAT              | CE_06C | 8:30 a.m. –<br>5:00 p.m. | KB-12 | Wei Pan/Haiyan Bai   | Propensity Score Methods and Their Applications in Observational Studies                        |
|                  | CE_07C | 1:00 p.m. –<br>5:00 p.m. | KB-11 | Christopher Schmid/<br>Thomas Trikalinos                                       | Network Meta-Analysis   |
|                  | CE_08C | 8:30 a.m. –<br>5:00 p.m. | HB-4  | Peter Mueller/Frank<br>Bretz/Byron Jones                                       | Bayesian and Frequentist Adaptive Methods<br>for Clinical Trials                                |
| C                | CE_09C | 8:30 a.m. –<br>5:00 p.m. | KB-8  | Frank Harrell  | Regression Modeling Strategies  |
| SUNDAY JULY 30   | CE_10C | 8:30 a.m. –<br>5:00 p.m. | KB-12 | Eric Laber/Marie<br>Davidian/Anastasios<br>(Butch) Tsiatis/Shannon<br>Holloway | Precision Medicine Through Optimal Treatment<br>Regimes   |
| SUNI             | CE_11C | 8:30 a.m. –<br>5:00 p.m. | HB-1  | Ming Li/Hui Lin  | Preparing Statistician/Statistics Graduates<br>to Be Data Scientists                            |
|                  | CE_12C | 8:30 a.m. –<br>5:00 p.m. | HB-6  | Roderick Little/Trivellore<br>Raghunathan                                      | Statistical Analysis with Missing Data  |
|                  | CE_13C | 8:30 a.m. –<br>5:00 p.m. | KB-11 | Raquel Prado/Mike West/<br>Marco Ferreira                                      | Bayesian Time Series Analysis and Forecasting   |

**Saturday and Sunday** (Two-Day Course)

PROFESSIONAL DEVELOPMENT



## **CONTINUING EDUCATION** CONTINUED

Holiday Ballroom = HB Key Ballroom = KB

|   | Course | Time                      | Room  | Instructor(s)  | Title  |
|---|--------|---------------------------|-------|--|--|
|   | CE_14C | 8:00 a.m. –<br>12:00 p.m. | KB-8  | William Wang/<br>Aloka Chakravarty/<br>Lisa LaVange/Bruce<br>Binkowitz | Multi-Regional Clinical Trials and the ICH E17   |
|   | CE_15C | 8:30 a.m. –<br>5:00 p.m.  | KB-11 | Jie Chen/Joseph Heyse/<br>Tze Leung Lai                                | Statistical Analysis of Medical Product<br>Safety Data and Benefit-Risk Assessment   |
| - | CE_16C | 8:30 a.m. –<br>5:00 p.m.  | KB-12 | Lan Wang/Ruosha Li   | A Tutorial on Quantile Regression and<br>Its Applications  |
|   | CE_17C | 8:30 a.m. –<br>5:00 p.m.  | HB-6  | Richard De Veaux   | Successful Data Mining in Practice   |
|   | CE_18C | 8:30 a.m. –<br>5:00 p.m.  | HB-5  | Abel Rodriguez/<br>Christopher Paciorek                                | Applied Bayesian Computational Methods   |
| • | CE_19C | 8:30 a.m. –<br>5:00 p.m.  | HB-1  | Jörg Drechsler/Jerry<br>Reiter   | Synthetic Data Sets for Statistical Disclosure<br>Limitation   |
|   | CE_20C | 8:30 a.m. –<br>5:00 p.m.  | HB-4  | Abhirup Datta/Sudipto<br>Banerjee/Andrew O.<br>Finley                  | Bayesian Modeling and Inference for<br>High-Dimensional Spatial-Temporal Data  |
|   | CE_21C | 1:00 p.m. –<br>5:00 p.m.  | KB-8  | David Dunson   | Bayesian Analysis of Big and<br>High-Dimensional Data  |
|   | CE_22C | 8:30 a.m. –<br>5:00 p.m.  | HB-5  | Devan Mehrotra/Alex<br>Dmitrienko/Jeff Maca                            | Analysis of Clinical Trials: Theory and Applications   |
| - | CE_23C | 8:30 a.m. –<br>5:00 p.m.  | HB-1  | David Haziza   | Construction of Weights in Surveys   |
|   | CE_24C | 8:30 a.m. –<br>5:00 p.m.  | HB-4  | Christopher Bilder/<br>Thomas Loughin                                  | Analysis of Categorical Data   |
|   | CE_25C | 8:30 a.m. –<br>5:00 p.m.  | KB-12 | Mohsen Pourahmadi  | High-Dimensional Covariance Estimation and Portfolio Selection   |
|   | CE_26C | 8:30 a.m. –<br>5:00 p.m.  | KB-11 | Matt Jans/<br>Abhijit Dasgupta   | Research and Analysis Workflows: Low-Cost,<br>Every-Day Project Management Techniques, Tools,<br>and Tips That Produce High-Quality, Streamlined,<br>Stress-Free Research and Data Science |
|   | CE_27C | 8:30 a.m. –<br>5:00 p.m.  | KB-8  | Wei-Chen Chen/<br>George Ostrouchov                                    | Essentials of High Performance and<br>Parallel Statistical Computing with R  |

**TUESDAY** AUGUST 1



## **COMPUTER TECHNOLOGY WORKSHOPS**

Holiday Ballroom = HB Key Ballroom = KB

Course Time Room Instructor(s) Title Number David Nichols/ Analyzing Temporal and 8:00 a.m. -**CE 29T** HB-1 Svetlana Levitan/ Spatiotemporal Data in IBM 9:45 a.m. Products Hui Yang 8:00 a.m. -Analyzing Multilevel Models with **CE\_30T** HB-2 Min Zhu 9:45 a.m. the GLIMMIX Procedure Dan Steinberg/ Introduction to Data Mining with 8:00 a.m. -**CE\_31T** HB-3 Mikhail Golovnya/ CART Classification and Regression 9:45 a.m. **Charles Harrison** Trees 10:00 a.m. -**CE\_32T** HB-1 Yulia Marchenko **Bayesian Analysis Using Stata** 11:45 a.m. 10:00 a.m. -Causal Treatment Effect Analysis **CE\_33T** HB-2 Yiu-Fai Yung Using SAS/STAT Software 11:45 a.m.  $\sim$ Improve Your Regression with MEDNESDAY AUGUST Modern Regression Analysis Mikhail Golovnya/ Techniques: Linear, Logistic, 10:00 a.m. -**CE\_34T** HB-3 Charles Harrison/ 11:45 a.m. Nonlinear, Regularized, GPS, LARS, Dan Steinberg LASSO, Elastic Net, MARS, TreeNet Gradient Boosting, Random Forests Kelci Miclaus/ Data Visualization for Life Sciences 1:00 p.m. -**CE\_35T** HB-1 2:45 p.m. **Richard Zink** with JMP 1:00 p.m. -Advanced Methods for Survival **CE\_36T** HB-2 Changbin Guo 2:45 p.m. Analysis Using SAS/STAT Software Evolution of Classification: From Logistic Regression and Decision Mikhail Golovnya/ Trees to Bagging/Boosting and 1:00 p.m. -**CE 37T** HB-3 Charles Harrison/ Netlift Modeling. Case Study 2:45 p.m. Dan Steinberg Examples Drawn from Data Sets in **Direct Marketing & Biomedical Data** Analysis Weighted GEE Analysis Using SAS/ 3:00 p.m. -Michael Lamm **CE 38T** HB-2 4:45 p.m. STAT Software Applied Data Mining Analysis: A Dan Steinberg/ 3:00 p.m. -**CE\_39T** HB-3 Mikhail Golovnya/ Step-by-Step Introduction Using 4:45 p.m. Real-World Data Sets Charles Harrison

PStat-, GStat-, and A.Stataccredited members in good standing with the ASA or SSC will receive a **20% discount** on Professional Development courses and workshops. PROFESSIONAL DEVELOPMENT



## PERSONAL SKILLS DEVELOPMENT

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

**Holiday Ballroom** = HB

**Key Ballroom** = KB **Convention Center** = CC

| Course<br>Number | Date  | Time                      | Room     | Instructor(s)   | Title   |  |
|------------------|---|---------------------------|----------|---|---|--|
| CE_40P           | <b>Part I</b><br>Saturday, July 29                                | 1:00 a.m. –<br>6:30 p.m.  | HB-3     | Vaneeta Grover/   | Preparing Statisticians<br>for Leadership: How to   |  |
|                  | <b>Part II</b><br>Sunday, July 30                                 | 8:00 a.m. –<br>12:00 p.m. | 110 5    | Bonnie LaFleur  | See the Big Picture and<br>Have More Influence  | To view                                |
| CE_41P           | <b>Part I</b><br>Saturday, July 29                                | 1:00 p.m. –<br>5:00 p.m.  | HB-2     | Rochelle E.   | Setting and<br>Documenting Progress   | complete<br>Professional<br>Developmen |
|                  | <b>Part II</b><br>Sunday, July 30                                 | 8:00 a.m. –<br>12:00 p.m. | ⊓D-2     | Tractenberg   | Toward Professional<br>Goals  | course<br>descriptions,                |
| CE 42P*          | Sunday, July 30   | 10:30 a.m. –              | CC-327   | Brian Wiens/<br>Richard De  | JSM Presentation<br>Skills Workshop   | visit<br><b>ww2.amstat</b><br>org/jsm. |
| CL_421           | Sanady, Saly So   | 12:30 p.m.                |          | Veaux   | (free event, no<br>registration required)   |  |
| CE_43P*          | Sunday, July 30   | 2:00 p.m. –<br>4:00 p.m.  | HB-2     | Dasgupta,<br>Nairanjana/<br>Weihsueh Chiu/<br>Mia Stephens/<br>Eduardo<br>Santiago/<br>Vaneeta Grover | Career Development:<br>Statistical Soft Skills:<br>They're Essential<br>(free event, no<br>registration required) |  |
|                  | <b>Part I</b><br>Monday, July 31                                  | 8:00 a.m. –<br>12:00 p.m. |          | Jennifer van  | Effective Presentations   |  |
| CE_44P           | HB-3<br><b>Part II</b> 1:00 p.m. –<br>Tuesday, August 1 5:00 p.m. | HB-3                      | Mullekom | for Statisticians:<br>Success = (PD)2   |   |  |

\* Free to all attendees. No registration or ticket required.



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**.

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.

| Activity<br>Number   | Roundtable<br>Number | Sponsor   | Title  | Presenter,<br>Affiliation  |  |  |  |
|--|----------------------|---|--|--|--|--|--|
| SUNDAY, JULY 30<br>Speaker with Lunch 12:30 - 1:50 p.m. (CC-301/302) |                      |   |  |  |  |  |  |
| 1  | SL01                 | Stats. Partnerships<br>Among Academe,<br>Indust. & Govt.<br>Committee | Strengths, Opportunities, and<br>Challenges in the Era of BIG Data:<br>An Asian Statistician Perspective | <b>Sastry Pantula</b><br>Oregon State University<br>College of Science |  |  |  |

#### **MONDAY, JULY 31**

#### A.M. Roundtable Discussions 7:00 - 8:15 a.m. (CC-Ballroom II)

| Monday's<br>Breakfast                               | 84 | ML01 | Government<br>Statistics Section                          | Evolution of Public Sector Data<br>Collections: Going Beyond<br>Traditional Probability Sample-<br>Based Data Collection | <b>Donsig Jang</b><br>NORC at the<br>University of Chicago          |
|---|----|------|---|--|---|
| House-made<br>pastries; seasonal<br>fruit; assorted | 85 | ML02 | Health Policy<br>Statistics Section                       | Scalable Precision Medicine<br>Through mHealth   | <b>Eric Laber</b><br>North Carolina<br>State University             |
| yogurts; and a cup<br>of coffee, tea,               | 86 | ML03 | Mental Health<br>Statistics Section                       | Challenges and Opportunities in<br>Functional Neuroimaging   | <b>Nicole Lazar</b><br>University of Georgia                        |
| or juice.   | 87 | ML04 | Section for<br>Statistical<br>Programmers and<br>Analysts | Open-Source Programming in the<br>Regulated Environment  | <b>Greg Valin</b><br>Amgen  |
|   | 88 | ML05 | Section on<br>Statistical<br>Consulting                   | How to Grow a Successful<br>Statistical Consulting Enterprise  | <b>James L. Rosenberger</b><br>The Pennsylvania State<br>University |

## ROUNDTABLES



| Activity<br>Number                                | Roundtable<br>Number                    | Sponsor                            | Title  | Presenter,<br>Affiliation                      |  |  |  |  |
|---|---|------------------------------------|--|--|--|--|--|--|
| A.M. Roun   | A.M. Roundtable Discussions (continued) |                                    |  |  |  |  |  |  |
| 80  | ML06                                    | Section on                         | Infusing Data Science into the Statistics Curriculum                           | <b>Adam Loy</b><br>Lawrence University         |  |  |  |  |
| 89  | ML07                                    | Statistical Education              | Introducing Bayesian Statistics<br>at Courses of Various Levels                | <b>Jingchen (Monika) Hu</b><br>Vassar College  |  |  |  |  |
| Speaker with Lunch 12:30 - 1:50 p.m. (CC-301/302) |   |                                    |  |  |  |  |  |  |
| 186   | ML08                                    | Section on<br>Statistics in Sports | Academia, Industry, Media:<br>The Multiple Roles of the Sports<br>Statistician | <b>Stephanie Kovalchik</b><br>Tennis Australia |  |  |  |  |

#### P.M. Roundtable Discussions 12:30 - 1:50 p.m. (CC-Ballroom II)

|     | ML09 |   | Applying Bayesian Methodology to Precision Medicine  | <b>Judy X. Li</b><br>FDA                        | Monday's Lunch   |
|-----|------|---|--|---|--|
|     | ML10 |   | FDA Draft Guidance on Multiple<br>Endpoints  | <b>Kate Liu</b><br>Amgen, Inc.                  | Parmesan-encrusted<br>tilapia with roasted<br>vegetables; salad; |
| 187 | ML11 | Biopharmaceutical<br>Section                  | How to Treat Site in Clinical Trials:<br>Fixed or Random?  | <b>Chul Ahn</b><br>FDA                          | rolls and butter;<br>choice of iced tea,                         |
|     | ML12 | Section                                       | How We Take Advantage of Big<br>Data When Dealing with the<br>Dilemma in Early-Phase Oncology      | <b>Shaoyi Li</b><br>Celgene                     | hot tea, or coffee;<br>and dessert.<br>Chef's choice of          |
|     | ML13 |   | Non-Inferiority Trials for Efficacy<br>and Safety  | <b>Steve Snapinn</b><br>Amgen, Inc.             | vegetarian menu.   |
| 188 | ML14 | Government<br>Statistics Section              | What Is the Future of the Sample<br>Survey for Government Statistics?                              | Peter Miller<br>U.S. Census Bureau              |  |
| 189 | ML15 | Health Policy                                 | Quantifying the Linkage Between<br>Patient Outcomes and Workforce<br>Quality                       | <b>Myra Norton</b><br>Arena Analytics           |  |
|     | ML16 | Statistics Section                            | The Evolution of Fraud Detection<br>Models   | <b>Brian Hochrein</b><br>IBM Watson Health      |  |
| 190 | ML17 | Quality and<br>Productivity<br>Section        | From Statistician to (Big) Data<br>Scientist: How to Prepare?                                      | <b>Ming Li</b><br>Amazon and<br>TAMU - Commerce |  |
| 191 | ML18 | Section for<br>Statistical                    | Planned vs. Ad Hoc Analysis<br>for Clinical Trials: What a Lead<br>Programmer Needs to Prepare For | <b>Wenyun Ji</b><br>Amgen, Inc.                 |  |
|     | ML19 | Programmers<br>and Analysts                   | Pursuing a Career in Statistics<br>and Statistical Programming: A<br>Student's Perspective         | Jessica Colson                                  |  |
| 192 | ML20 | Section on<br>Bayesian Statistical<br>Science | How Can Disease Progression<br>Modeling Help Us Build Better<br>Clinical Trials?                   | <b>Melanie Quintana</b><br>Berry Consultants    |  |



## ASA SYMPOSIUM ON STATISTICAL INFERENCE

Building on the American Statistical Association's statement on *p*-values, this symposium will focus attention on specific approaches for improving practice across three broad sets of activities:

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#### OCTOBER 11-13, 2017 BETHESDA, MARYLAND

Scientific Method for the 21st Century: A World Beyond p < 0.05

#### **KEY DATES**

Speaker Registration Deadline August 23

Early Registration and Housing Deadline September 12

Online Registration Deadline October 3

Onsite Registration October 11-12

> Learn more at ww2.amstat. org/ssi.





#### MONDAY, JULY 31 CONTINUED

| Activity<br>Number                      | Roundtable<br>Number | Sponsor   | Title  | Presenter,<br>Affiliation                                   |  |  |  |
|---|----------------------|---|--|---|--|--|--|
| P.M. Roundtable Discussions (continued) |                      |   |  |   |  |  |  |
| 193                                     | ML21                 | Section on Physical<br>and Engineering<br>Science                 | Design of Experiment<br>for Big Data Era   | <b>Dennis K.J. Lin</b><br>Penn State University             |  |  |  |
| 194                                     | ML22                 | Section on<br>Statistical<br>Consulting                           | Structures of Successful Stat Labs   | <b>Eric Vance</b><br>LISA-University of<br>Colorado Boulder |  |  |  |
| 195                                     | ML23                 | ML23 Section on   | Student Involvement in<br>Community Projects   | <b>Mary Gray</b><br>American University                     |  |  |  |
|   | ML24                 | Statistical<br>Education  | What Are the 25 Most Common<br>Terms in Statistics from the Last<br>20 Years?                    | <b>John McKenzie</b><br>Babson College                      |  |  |  |
| 196                                     | ML25                 | Section on<br>Statistics and the<br>Environment                   | Data Science and Environmental<br>Statistics   | Stephan Sain  |  |  |  |
| 197                                     | ML26                 | Section on<br>Statistics in<br>Epidemiology                       | Understanding the NIH Grant<br>Review Process  | Heidi B. Friedman<br>National Institutes<br>of Health       |  |  |  |
| 198                                     | ML27                 | Section on<br>Teaching of<br>Statistics in the<br>Health Sciences | Can There Be Intersections<br>Between 'Open Data' and<br>'Teaching Data' in Medical<br>Research? | <b>Ann Brearley</b><br>University of Minnesota              |  |  |  |
| 199                                     | ML28                 | Survey Research<br>Methods Section                                | The Connectivity of Data Science<br>to Survey Design and Statistical<br>Practice                 | <b>Steven Cohen</b><br>RTI International                    |  |  |  |

#### **TUESDAY, AUGUST 1**

#### A.M. Roundtable Discussions (CC-Ballroom II)

| 260 | TL05 | Section on<br>Statistics and the<br>Environment | ENVR Mentoring Session   | <b>Montserrat Fuentes</b><br>Virginia Commonwealth<br>University    | of coffee, tea,<br>or juice.                                |
|-----|------|---|--|---|---|
| 259 | TL04 | Section on<br>Statistical<br>Education          | Why Do Students Hate Statistics?   | <b>Michael DeDonno</b><br>Florida Atlantic<br>University            | pastries; seasonal<br>fruit; assorted<br>yogurts; and a cup |
| 258 | TL03 | Section on<br>Statistical<br>Consulting         | Consulting, Collaboration, or<br>Something Else? Perspectives              | <b>Michiko Wolcott</b><br>Msight Analytics                          | <b>Tuesday's</b><br><b>Breakfast</b><br>House-made          |
| 257 | TL02 | Health Policy<br>Statistics Section             | Current Policies and Landscape<br>for Bayesian Methods in Drug<br>Approval | Fanni Natanegara<br>Eli Lilly and Company                           |   |
| 256 | TL01 | Biopharmaceutical<br>Section                    | Chat with the Publications Officer of the Biopharmaceutical Section        | <b>Richard C. Zink</b><br>JMP Life Sciences, SAS<br>Institute, Inc. |   |



#### TUESDAY, AUGUST 1 CONTINUED

| Activity<br>Number | Roundtable<br>Number | Sponsor   | Title  | Presenter,<br>Affiliation   |
|--------------------|----------------------|---|--|---|
| A.M. Round         | dtable Discus        | sions (continued)   |  |   |
| 261                | TL06                 | Section on<br>Statistics in<br>Defense and<br>National Security   | Advances and Challenges<br>in Disease Surveillance   | <b>Ronald Fricker</b><br>Virginia Tech  |
| 262                | TL07                 | Section on<br>Teaching of<br>Statistics in the<br>Health Sciences | Role of Replication Research<br>in Statistics Graduate Education   | <b>Lynette Smith</b><br>University of Nebraska<br>Medical Center                          |
| Speaker v          | vith Lunch 12:       | 30 - 1:50 p.m. (CC-301/   | 302)   |   |
| 360                | TL08                 | Business and<br>Economic Statistics<br>Section                    | The View of the Economy<br>Through the Lens of Financial<br>Accounts: Improving Economic<br>Measurement at the JPMorgan<br>Chase Institute | <b>Diana Farrell</b><br>JPMorgan Chase<br>Institute                                       |
| P.M. Roun          | dtable Discus        | sions 12:30 - 1:50 p.m.   | (CC-Ballroom II)   |   |
|                    | TL09                 |   | Benefit-Risk Analysis in Medical<br>Development  | <b>Shuai Yuan</b><br>Merck  |
|                    | TL10                 |   | Dose-Finding in Oncology Trials:<br>A Discussion on Challenges and<br>Current Methods  | <b>Zhao Yang</b><br>Amgen, Inc.   |
| 361                | TL11                 | Biopharmaceutical<br>Section                                      | FDA/Industry-Wide<br>Recommended Analyses and<br>Displays: A Vision Within Reach   | <b>Sheryl Treichel</b><br>Amgen, Inc.   |
|                    | TL12                 |   | Integrating Data Science and<br>Big Data Concepts and Machine<br>Learning in Drug Safety   | <b>Melvin Munsaka</b><br>Safety Statistics and<br>Observational Res.<br>Analytics, Takeda |
|                    | TL13                 |   | Personalized Endpoints   | <b>Marian Strazzeri</b><br>FDA  |
| 362                | TL14                 | Health Policy<br>Statistics Section                               | Wearable Devices in Daily<br>Activities and Clinical Trials  | <b>R. Lakshmi<br/>Vishnuvajjala</b><br>FDA/CDRH   |
| 363                | TL15                 | Mental Health<br>Statistics Section                               | Precision Medicine Opportunities<br>in Mental Health   | <b>Michael R. Kosorok</b><br>University of North<br>Carolina at Chapel Hill               |
| 364                | TL16                 | Quality and<br>Productivity<br>Section                            | Statistical Process Control: Myths,<br>Misconceptions, and Applications  | <b>Daksha Chokshi</b><br>Aerojet Rocketdyne   |
| 365                | TL17                 | Section for<br>Statistical<br>Programmers<br>and Analysts         | Use of Visual Analytics in<br>Regulatory Submissions   | <b>Vipin Arora</b><br>Eli Lilly and Company   |

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

# ROUNDTABLES



| Activity<br>Number | Roundtable<br>Number                    | Sponsor   | Title   | Presenter,<br>Affiliation   |  |  |  |  |
|--------------------|---|---|---|---|--|--|--|--|
| P.M. Round         | P.M. Roundtable Discussions (continued) |   |   |   |  |  |  |  |
| 366                | TL18                                    | Section on<br>Bayesian Statistical<br>Science                     | Bayesian Demography:<br>Probabilistic Population<br>Reconstruction and Projection                           | <b>Adrian E. Raftery</b><br>University of<br>Washington                 |  |  |  |  |
| 367                | TL19                                    | Section on Medical<br>Devices and<br>Diagnostics                  | Design Specifications of<br>Performance for an Analytical<br>Laboratory Method                              | Beimar Iriarte<br>Abbott Laboratories                                   |  |  |  |  |
| 368                | TL20                                    | Section on<br>Statistical<br>Consulting                           | Meetings: Turning Stumbling<br>Blocks into Stepping Stones  | <b>Douglas Zahn</b><br>Zahn & Associates                                |  |  |  |  |
|                    | TL21                                    |   | A Course in Business Analytics  | <b>David Levine</b><br>Baruch College (CUNY)                            |  |  |  |  |
| 369                | TL22                                    | Section on<br>Statistical<br>Education                            | GAISEing at a Lecture Hall:<br>Effective Pedagogy in Large-<br>Enrollment Courses                           | Matthew Beckman<br>Penn State University                                |  |  |  |  |
|                    | TL23                                    |   | Incorporating Complex Survey<br>Concepts into the Curriculum  | <b>Pamela Fellers</b><br>Grinnell College                               |  |  |  |  |
| 370                | TL24                                    | Section on<br>Statistics and the<br>Environment                   | Sharing Stories of Success:<br>Environmental and Ecological<br>Statisticians Working Outside of<br>Academia | <b>Brian Gray</b><br>U.S. Geological Survey                             |  |  |  |  |
| 371                | TL25                                    | Section on<br>Statistics in<br>Marketing                          | Best Practices in Predicting<br>Customer Attrition  | Adraine Upshaw<br>BBVA Compass  |  |  |  |  |
| 372                | TL26                                    | Section on<br>Teaching of<br>Statistics in the<br>Health Sciences | Promoting Promotion for<br>Statistical Educators  | Felicity Enders<br>Mayo Clinic  |  |  |  |  |
| 373                | TL27                                    | Social Statistics<br>Section                                      | The Implications Undercounting<br>of Young Children in Census and<br>Census Bureau Surveys                  | <b>William O'Hare</b><br>O'Hare Data and<br>Demographic<br>Services LLC |  |  |  |  |
| 374                | TL28                                    | Survey Research<br>Methods Section                                | Election 2016 Polling: What We<br>Learned   | Mark Schulman   |  |  |  |  |

To view complete roundtable descriptions,

visit ww2.amstat.org/jsm.



## ROUNDTABLES

|  | Activity<br>Number  | Roundtable<br>Number | Sponsor                                 | Title   | Presenter,<br>Affiliation  |  |  |
|--|---------------------|----------------------|---|---|--|--|--|
|  | WEDNESDAY, AUGUST 2 |                      |   |   |  |  |  |
|  | A.M. Rou            | ndtable Discu        | ssions 7:00 - 8:15 a.m.                 | (CC-Ballroom II)  |  |  |  |
| Wednesday's  | 429                 | WL01                 | Government<br>Statistics Section        | Publication Options for Producers<br>of Official Statistics   | Kirsten West   |  |  |
| Breakfast<br>House-made<br>pastries; seasonal<br>fruit; assorted | 430                 | WL02                 | Health Policy<br>Statistics Section     | From Estimates to Consequences:<br>How Do We Make Results of<br>Statistical Analyses Useful for<br>Health Policy Decision-Making? | <b>Ruth Etzioni</b><br>Fred Hutchinson<br>Cancer Research Center                                 |  |  |
| yogurts; and a cup of coffee, tea, or juice.                     | 431                 | WL03                 | Mental Health<br>Statistics Section     | Statistical Challenges and<br>Possible Career Path in Aging and<br>Dementia Research  | <b>Chengjie Xiong</b><br>Washington University<br>School of Medicine                             |  |  |
|  | 432                 | WL04                 | Section on<br>Statistical<br>Consulting | A Statistician's Guide to Data<br>Storytelling in Business  | <b>Christopher Holloman</b><br>Information Control<br>Company                                    |  |  |
|  | 433                 | WL05                 | Section on<br>Statistical<br>Education  | Turning a Tweet into a Lesson:<br>Using Current Events as a Context   | <b>Ellen Endriss</b><br>Career Center ;<br><b>Amy Hogan</b><br>Brooklyn Technical<br>High School |  |  |

#### Speaker with Lunch 12:30 - 1:50 p.m. (CC-301/302)

| 532 | WL07 | Health Policy<br>Statistics Section | The Role of Research and<br>Evaluation in Health Policy Reform | <b>Renee Mentnech</b><br>Centers for Medicare<br>and Medicaid Services |
|-----|------|-------------------------------------|--|--|
|-----|------|-------------------------------------|--|--|

#### P.M. Roundtable Discussions 12:30 - 1:50 p.m. (CC-Ballroom II)

|     | WL08 |                                     | Aggregate Safety Monitoring for<br>the FDA IND Safety Reporting<br>Final Rule  | <b>Greg Ball</b><br>Merck                  |
|-----|------|-------------------------------------|--|--|
|     | WL09 |                                     | Statistical Considerations for Rare<br>Disease Clinical Development  | <b>Yang Song</b><br>Vertex Pharmaceuticals |
| 533 | WL10 | Biopharmaceutical<br>Section        | Statistical Inference in the Era of<br>Precision Medicine: The Essential<br>Role of Statistics for Unmet<br>Needs in Algorithm Refinement,<br>Diagnostics Application, and Drug<br>Development | <b>Ruixiao Lu</b><br>Genomic Health        |
|     | WL11 |                                     | Beyond the Statistical Analysis<br>Plan: Statisticians Partaking Earlier<br>in Design of Clinical Trials   | <b>Yuqun Abigail Luo</b><br>FDA            |
|     | WL12 |                                     | Unblinded Sample Size Re-<br>Estimation for Complex Trials   | <b>Chris Holland</b><br>Amgen, Inc.        |
| 535 | WL14 | Mental Health<br>Statistics Section | Statistical Challenges in Precision<br>Medicine: Focus on Psychiatric<br>Genetics  | <b>Joanna Biernacka</b><br>Mayo Clinic     |





| Activity<br>Number | Roundtable<br>Number | Sponsor   | Title  | Presenter,<br>Affiliation  |  |
|--------------------|----------------------|---|--|--|--|
| P.M. Round         | dtable Discuss       | ions (continued)  |  |  |  |
| 536                | WL15                 | Quality and<br>Productivity<br>Section                                | Statistical Literacy in the Age of<br>Data Science   | <b>Michael Jadoo</b><br>Bureau of Labor<br>Statistics  |  |
| 537                | WL16                 | Section for<br>Statistical<br>Programmers and<br>Analysts             | Open-Source Software<br>in Statistical Production<br>Environments  | <b>Jonathan Lisic</b><br>USDA/NASS   |  |
| 538                | WL17                 | Section on<br>Bayesian Statistical<br>Science                         | Bayesian Inference in Surveys  | <b>Trivellore Raghunathan</b><br>University of Michigan<br>School of Public Health               |  |
| 539                | WL18                 | Section on Medical<br>Devices and<br>Diagnostics                      | Considerations in Transitioning<br>from Proprietary to Non-<br>Proprietary Statistical Software to<br>Support Regulatory Submissions | <b>Theodore Lystig</b><br>Medtronic, Inc.  |  |
| 540                | WL19                 | Section on Physical<br>and Engineering<br>Sciences                    | Statistical Challenges and<br>Opportunities with Remote<br>Sensing Data  | <b>Jonathan Hobbs</b><br>Jet Propulsion<br>Laboratory  | Wednesday's Lunch  |
| 541                | WL20                 | Section on Risk<br>Analysis   | Risk in the Context of Regulation  | <b>David Banks</b><br>Duke University  | Yankee pot roast<br>with mashed pota-  |
| 542                | WL21                 | Section on<br>Statistical<br>Consulting                               | Impact of Successful Stats<br>Consulting in a Fast-Changing<br>Environment: A Pharmaceutical<br>Industry Perspective                 | <b>Jianing Di</b><br>Janssen R&D, LLC  | toes and grilled veg-<br>etables; salad; rolls<br>and butter; choice of<br>iced tea, hot tea, or |
| 543                | WL22<br>WL23         | Section on<br>Statistical<br>Education                                | Discussing the Uses and Creation<br>of R Shiny Applications<br>Recruiting and Engaging Students                                      | Justin Post<br>North Carolina State<br>University<br>Scott McClintock<br>West Chester University | coffee; and dessert.<br>Chef's choice of<br>vegetarian menu.                                     |
| 544                | WL24                 | Section on<br>Statistics in<br>Defense and<br>National Security       | Statistical Design and Analysis in<br>DoD Test and Evaluation  | Laura Freeman<br>IDA   |  |
| 545                | WL25                 | Section on<br>Statistics in<br>Epidemiology                           | How Can Statisticians Help Ensure<br>the Bright Future of Population<br>Health Research in the United<br>States?                     | <b>Karen<br/>Bandeen-Roche</b><br>The Johns Hopkins<br>University                                |  |
| 546                | WL26                 | Social Statistics   | Challenges and Opportunities with Immigration Data   | <b>Jiashen You</b><br>U.S. Department of<br>Homeland Security                                    |  |
| 546                | WL27                 | Section   | Nonparametric Estimation of<br>Marginal Mean Over Time for a<br>General Counting Process   | <b>Sudipta Bhattacharya</b><br>AstraZeneca   |  |
| 547                | WL28                 | Stats. Partnerships<br>Among Academe,<br>Indust. & Govt.<br>Committee | Making Sense of Abundance of<br>Data Through Collaborations  | <b>Ying Ding</b><br>University of Pittsburgh   |  |

# Statistics and Data Science October 19-21, 2017







**Every executive in an** analytics-driven organization should commit to sending the women in analytics roles within their company to next year's Women in Statistics and Data Science conference in La Jolla, CA."

> **Jim Balcom** VP, Project Solutions - BI and Analytics at Experis

#### REGISTER

**Early Registration Closes:** September 6

Hotel Reservations **Close:** September 22

**Regular Registration Closes:** October 5

Students and mid-career and experienced professionals are all represented! Learn more and become involved at ww2.amstat.org/wsds!

Women in Statistics and Data Science Conference • La Jolla, California • Hyatt Regency • October 19-21, 2017

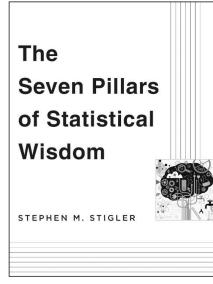


|           |                                   | Sunday, July 30                     |                     |
|-----------|-----------------------------------|-------------------------------------|---------------------|
| Sponsor   | 2:00 p.m.                         | 4:00 p.m.                           | 8:30 p.m.           |
| ASIG      |                                   |                                     | 83 CC-Halls A&B     |
| B&E       | 30 CC-344                         | 65 CC-349                           |                     |
| BIOM      | 19 CC-323 / 28 CC-319             | 47 CC-320 / 58 CC-304 / 67 CC-319   |                     |
| BIOP      | 6 CC-316 / 23 CC-325 / 29 CC-320  | 60 CC-316 / 66 CC-321               |                     |
| CARCH     |                                   | 45 CC-336                           |                     |
| CNSL      |                                   | 78 CC-350                           |                     |
| coc       | 7 CC-317                          |                                     | KEY                 |
| Computing | 24 CC-341                         | 56 CC-318                           | 30 CC-210           |
| CSP       | 17 CC-350                         |                                     | 30 = Session Number |
| EDUC      | 27 CC-324                         | 79 CC-343                           | CC = Building       |
| ENAR      | 4 CC-310 / 31 CC-311              | 44 CC-308 / 54 CC-314               | 210 = Room Number   |
| ENVR      | 9 CC-336 / 22 CC-337              | 82 CC-312                           |                     |
| EPI       |                                   | 46 CC-310 / 74 CC-303               |                     |
| GM        | 42 CC-348                         |                                     |                     |
| GOVT      | 11 CC-327 / 20 CC-328 / 32 CC-326 | 68 CC-346                           |                     |
| HPSS      | 3 CC-338                          | 72 CC-313                           |                     |
| ICSA      | 33 CC-349                         | 57 CC-337                           |                     |
| IISA      |                                   | 69 CC-344                           |                     |
| IMS       | 5 CC-314 / 12 CC-Ballroom I       | 43 CC-329 / 49 CC-331/332 / 51 CC-3 | 326 / 61 CC-325     |
| SBA       | 10 CC-308                         |                                     |                     |
| KISS      |                                   | 52 CC-339                           |                     |
| MEM       |                                   | 55 CC-315                           |                     |
| MHSS      | 13 CC-339                         | 70 CC-317                           |                     |
| NPAR      | 2 CC-315 / 35 CC-313              | 73 CC-330                           |                     |
| Q&P       | 38 CC-342                         |                                     |                     |
| RISK      | 39 CC-347                         | 53 CC-328                           |                     |
| RSS       | 15 CC-343                         |                                     |                     |
| SBSS      | 14 CC-304 / 18 CC-303 / 34 CC-312 | 63 CC-323 / 71 CC-324               |                     |
| SGG       | 36 CC-322                         | 75 CC-311                           |                     |
| SLDS      | 16 CC-340 / 40 CC-345 / 41 CC-346 | 50 CC-327 / 81 CC-322               |                     |
| soc       | 26 CC-318                         | 77 CC-342                           |                     |
| SPAIG     |                                   | 59 CC-338                           |                     |
| SPES      |                                   | 62 CC-348                           |                     |
| SRMS      | 21 CC-329 / 37 CC-330             | 48 CC-340 / 64 CC-341 / 76 CC-345   |                     |
| Statlmage |                                   | 80 CC-347                           |                     |
| TAS       | 8 CC-331/332                      |                                     |                     |
| TSHS      | 25 CC-321                         |                                     |                     |



|         |  |  | Monda      | ay, July 31  |           |                               |           |
|---------|--|--|------------|--|-----------|-------------------------------|-----------|
| Sponsor | 8:30 a.m.                                  | 10:30 a.m.                                 | 11:35 a.m. | 2:00 p.m.  | 3:05 p.m. | 4:00 p.m.                     | 8:00 p.m. |
| ASA     |  |  |            |  |           | 254 CC-Hall D                 |           |
| ASIG    |  | 154 CC-338                                 |            |  |           |                               |           |
| B&E     | 98 CC-336                                  | 159 CC-322 /<br>165 CC-349                 |            | 225 CC-330 /<br>250 CC-Halls<br>A&B  |           |                               |           |
| BIOM    | 94 CC-314 /<br>111 CC-312 /<br>122 CC-313  | 153 CC-321 /<br>160 CC-323 /<br>164 CC-313 |            | 221 CC-319 /<br>229 CC-320 /<br>230 CC-309 /<br>242 CC-Halls<br>A&B / 251 CC-<br>Halls A&B |           | KEY<br>30 CC-2                |           |
| BIOP    | 113 CC-317 /<br>123 CC-309 /<br>124 CC-319 | 140 CC-314 /<br>151 CC-317                 |            | 218 CC-316 /<br>223 CC-315 /<br>231 CC-312 /<br>243 CC-Halls<br>A&B                        | 0         | C = Building<br>10 = Room Num |           |
| CAOSA   |  | 142 CC-337                                 |            |  |           |                               |           |
| CFR     | 104 CC-321                                 |  |            |  |           |                               |           |





#### The Seven Pillars of Statistical Wisdom

#### Stephen M. Stigler

\$22.95

"Wonderful . . . Each of the seven pillars that Stigler, in his wisdom, has hewn from the past two centuries of statistical thought provides surprising insights."

-Howard Wainer, Science

"Statistics has a core set of ideas that touch every aspect of our lives. Stigler has tapped into these and brought them to life."

-Persi Diaconis, Stanford University

TECHNICAL SESSIONS



| Monday, July 31 |   |  |                      |   |                     |           |                       |
|-----------------|---|--|----------------------|---|---------------------|-----------|-----------------------|
| Sponsor         | 8:30 a.m.                                 | 10:30 a.m.   | 11:35 a.m.           | 2:00 p.m.   | 3:05 p.m.           | 4:00 p.m. | 8:00 p.m.             |
| LGBTCC          |   | 163 CC-340   |                      |   |                     |           |                       |
| CNSL            | 110 CC-311                                |  |                      | 211 CC-326  |                     |           |                       |
| Computing       | 107 CC-343 /<br>118 CC-322                | 172 CC-345 /<br>182 CC-Halls<br>A&B                        |                      | 207 CC-338 /<br>240 CC-347                          |                     |           |                       |
| EDUC            | 116 CC-318                                | 173 CC-309 /<br>179 CC-Halls<br>A&B                        |                      | 213 CC-318  |                     |           |                       |
| ENAR            | 97 CC-315                                 | 145 CC-315   |                      | 204 CC-308 /<br>224 CC-317 /<br>248 CC-Halls<br>A&B |                     |           |                       |
| ENVR            | 121 CC-326                                | 157 CC-303 /<br>176 CC-Halls<br>A&B                        | 185 CC-<br>Halls A&B | 215 CC-321 /<br>235 CC-325                          |                     |           |                       |
| EPI             | 99 CC-316 /<br>127 CC-320                 | 149 CC-319   |                      | 206 CC-314 /<br>236 CC-303                          |                     |           |                       |
| GOVT            | 93 CC-<br>331/332 / 118<br>CC-322         | 162 CC-326 /<br>181 CC-Halls<br>A&B / 182 CC-<br>Halls A&B |                      | 222 CC-343 /<br>232 CC-345                          | 253 CC-Halls<br>A&B |           |                       |
| GRPH            | 103 CC-349 /<br>118 CC-322                | 182 CC-Halls<br>A&B  |                      |   |                     |           |                       |
| HPSS            | 115 CC-347                                | 136 CC-308 /<br>162 CC-326 /<br>169 CC-304                 |                      |   | 253 CC-Halls<br>A&B |           |                       |
| ICSA            |   | 137 CC-341   |                      |   |                     |           |                       |
| IISA            |   | 156 CC-350   |                      | 246 CC-Halls<br>A&B                                 |                     |           |                       |
| IMS             | 92 CC-341 /<br>100 CC-308 /<br>101 CC-310 | 146 CC-310 /<br>147 CC-328 /<br>166 CC-330                 |                      | 205 CC-311 /<br>210 CC-310 /<br>212 CC-323          |                     |           | 255 CC-<br>Ballroom I |
| ISBA            | 108 CC-337 /<br>119 CC-323                | 183 CC-Halls<br>A&B  |                      |   |                     |           |                       |
| ISI             |   | 152 CC-306   |                      | 201 CC-336  |                     |           |                       |
| JASA            |   | 148 CC-327   |                      |   |                     |           |                       |
| JEBS            |   |  |                      | 209 CC-341  |                     |           |                       |
| JSMPS           | 90<br>CC-Ballroom I                       | 132<br>CC-Ballroom I                                       |                      | 200 CC-<br>Ballroom I                               |                     |           |                       |
| KISS            |   | 167 CC-339   |                      |   |                     |           |                       |
| MDD             | 126 CC-342                                |  |                      | 216 CC-328 /<br>244 CC-Halls<br>A&B                 |                     |           |                       |
| MEM             |   | 133 CC-<br>331/332   |                      |   |                     |           |                       |



|           |  |   | Monda               | y, July 31                          |                     |           |           |
|-----------|--|---|---------------------|-------------------------------------|---------------------|-----------|-----------|
| Sponsor   | 8:30 a.m.                                  | 10:30 a.m.  | 11:35 a.m.          | 2:00 p.m.                           | 3:05 p.m.           | 4:00 p.m. | 8:00 p.m. |
| MHSS      | 119 CC-323                                 | 183 CC-Halls<br>A&B                                 |                     | 233 CC-329                          |                     |           |           |
| MIN       |  |   |                     | 214 CC-327                          |                     |           |           |
| MKTG      |  | 155 CC-348 /<br>162 CC-326                          |                     | 250 CC-Halls<br>A&B                 | 253 CC-Halls<br>A&B |           |           |
| NPAR      | 91 CC-340 /<br>129 CC-339                  | 161 CC-325 /<br>170 CC-347                          |                     | 220 CC-306                          | 252 CC-Halls<br>A&B |           |           |
| PhRMA     | 95 CC-303                                  |   |                     |                                     |                     |           |           |
| Q&P       | 114 CC-304                                 |   |                     |                                     |                     |           |           |
| RISK      | 106 CC-346                                 | 135 CC-343  |                     |                                     |                     |           |           |
| RSS       |  | 141 CC-342 /<br>178 CC-Halls<br>A&B                 |                     |                                     |                     |           |           |
| SBSS      | 119 CC-323 /<br>125 CC-338                 | 158 CC-324 /<br>168 CC-329 /<br>183 CC-Halls<br>A&B |                     | 208 CC-322 /<br>234 CC-304          |                     |           |           |
| SDNS      |  | 134 CC-344  |                     | 241 CC-348                          |                     |           |           |
| SGG       | 109 CC-329                                 | 143 CC-316  |                     | 237 CC-313                          |                     |           |           |
| SLDS      | 96 CC-344 /<br>120 CC-325 /<br>131 CC-345  | 159 CC-322 /<br>174 CC-346 /<br>175 CC-Halls<br>A&B | 184 CC-Halls<br>A&B | 219 CC-349 /<br>250 CC-Halls<br>A&B |                     |           |           |
| SOC       |  | 138 CC-318  |                     | 226 CC-339                          |                     |           |           |
| SPES      | 130 CC-306                                 |   |                     | 203 CC-<br>331/332                  |                     |           |           |
| SPORTS    |  | 159 CC-322 /<br>177 CC-Halls<br>A&B                 |                     | 250 CC-Halls<br>A&B                 |                     |           |           |
| SRMS      | 105 CC-327 /<br>112 CC-328 /<br>128 CC-330 | 171 CC-312  |                     | 227 CC-344 /<br>238 CC-346          |                     |           |           |
| SSC       |  | 144 CC-336  |                     | 217 CC-337                          |                     |           |           |
| SWB       |  |   |                     | 228 CC-324                          |                     |           |           |
| SxP       |  |   |                     | 245 CC-Halls<br>A&B                 |                     |           |           |
| Statlmage |  | 150 CC-311 /<br>161 CC-325                          |                     | 202 CC-340                          | 252 CC-Halls<br>A&B |           |           |
| TSHS      |  | 180 CC-Halls<br>A&B                                 |                     | 239 CC-342                          |                     |           |           |
| rsig      | 102 CC-348 /<br>117 CC-324                 |   |                     |                                     |                     |           |           |
| WNAR      |  | 139 CC-320  |                     | 247 CC-Halls<br>A&B                 |                     |           |           |

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|---|---|--|
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|   |   |  |

|           | Tuesday, August 1                                  |   |                     |   |                     |  |               |  |
|-----------|--|---|---------------------|---|---------------------|--|---------------|--|
| Sponsor   | 8:30 a.m.  | 10:30 a.m.  | 11:35 a.m.          | 2:00 p.m.   | 3:05 p.m.           | 4:00 p.m.                                      | 8:00 p.m.     |  |
| ASA       |  |   |                     |   |                     |  | 428 CC-Hall D |  |
| B&E       | 270 CC-339 /<br>281 CC-342                         | 338 CC-342  |                     | 402 CC-320  |                     |  |               |  |
| BIOM      | 294 CC-330   | 315 CC-304 /<br>324 CC-311 /<br>336 CC-316  |                     | 395 CC-342 /<br>400 CC-347  |                     |  |               |  |
| BIOP      | 287 CC-<br>331/332 / 291<br>CC-322 / 295<br>CC-336 | 328 CC-314 /<br>331 CC-327 /<br>333 CC-323 /<br>337 CC-315 /<br>357 CC-Halls<br>A&B |                     | 386 CC-341 /<br>398 CC-346 /<br>401 CC-344 /<br>423 CC-Halls<br>A&B | 30<br>cc            | EY<br>0 CC-2<br>= Session Number<br>= Building | er            |  |
| CAUWOM    |  | 308 CC-308  |                     |   | 21                  | 0 = Room Numbe                                 | er            |  |
| CNSL      |  | 350 CC-Halls<br>A&B   |                     | 413 CC-350  |                     |  |               |  |
| Computing | 293 CC-326 /<br>302 CC-311 /<br>303 CC-312         | 307 CC-344 /<br>345 CC-345 /<br>349 CC-Halls<br>A&B                                 | 359 CC-Halls<br>A&B | 414 CC-338  |                     |  |               |  |
| DEM       |  |   |                     |   |                     | 427 CC-Hall D                                  |               |  |
| EDUC      | 266 CC-314   | 334 CC-325 /<br>344 CC-309  |                     | 397 CC-313  | 424 CC-Halls<br>A&B |  |               |  |
| ENAR      | 277 CC-328   | 320 CC-318 /<br>325 CC-312  |                     | 377 CC-345  |                     |  |               |  |
| ENVR      | 298 CC-347   | 322 CC-350  |                     | 406 CC-311  |                     |  |               |  |
| EPI       | 292 CC-323 /<br>299 CC-338                         | 341 CC-319 /<br>358 CC-Halls<br>A&B   |                     | 379 CC-340 /<br>407 CC-343 /<br>417 CC-Halls<br>A&B                 |                     |  |               |  |
| ETHICS    |  |   |                     | 375 CC-349  |                     |  |               |  |
| GM        |  |   |                     | 384 CC-337  |                     |  |               |  |
| GOVT      | 286 CC-325   | 319 CC-321 /<br>346 CC-313  |                     | 394 CC-319  |                     |  |               |  |
| GRPH      | 293 CC-326   | 348 CC-Halls<br>A&B   | 359 CC-Halls<br>A&B | 389 CC-314  |                     |  |               |  |
| HPSS      |  | 311 CC-349  |                     | 393 CC-304 /<br>421 CC-Halls<br>A&B                                 |                     |  |               |  |
| Host      |  | 318 CC-341  |                     |   |                     |  |               |  |
| ICSA      | 279 CC-348   | 340 CC-348  |                     | 378 CC-309  |                     |  |               |  |
| IISA      |  | 312 CC-338 /<br>333 CC-323  |                     | 423 CC-Halls<br>A&B   |                     |  |               |  |



|         |  |   | Tuesday    | , August 1   |                     |                       |           |
|---------|--|---|------------|--|---------------------|-----------------------|-----------|
| Sponsor | 8:30 a.m.                                  | 10:30 a.m.  | 11:35 a.m. | 2:00 p.m.  | 3:05 p.m.           | 4:00 p.m.             | 8:00 p.m. |
| IMS     | 268 CC-349 /<br>272 CC-350 /<br>274 CC-310 | 306 CC-328<br>/ 309 CC-<br>331/332 / 314<br>CC-329 / 332<br>CC-322 / 339<br>CC-330 /354<br>CC-Halls A&B |            | 380 CC-328<br>/ 387 CC-<br>Ballroom I /<br>388 CC-329 /<br>403 CC-325 /<br>422 CC-Halls<br>A&B " |                     | 426 CC-<br>Ballroom I |           |
| ISBA    |  | 327 CC-324  |            |  |                     |                       |           |
| ISI     |  | 335 CC-326  |            |  | 425 CC-Halls<br>A&B |                       |           |
| JSMPS   | 263 CC-<br>Ballroom I                      | 305 CC-<br>Ballroom I   |            |  |                     |                       |           |
| KISS    |  | 352 CC-Halls<br>A&B   |            |  |                     |                       |           |
| LDAIG   |  |   |            | 383 CC-317   |                     |                       |           |
| MDD     |  | 333 CC-323  |            | 382 CC-308 /<br>423 CC-Halls<br>A&B  |                     |                       |           |
| МЕМ     | 275 CC-308                                 |   |            |  |                     |                       |           |

Survey Design and Methodology Technical Assistance Decision Support Advanced Analytics Statistical Analysis Data Science

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| Tuesday, August 1 |  |  |                     |  |   |                                    |           |
|-------------------|--|--|---------------------|--|---|------------------------------------|-----------|
| Sponsor           | 8:30 a.m.                                  | 10:30 a.m.   | 11:35 a.m.          | 2:00 p.m.  | 3:05 p.m.                                 | 4:00 p.m.                          | 8:00 p.m. |
| MHSS              |  | 329 CC-347 /<br>333 CC-323                         |                     | 385 CC-303 /<br>419 CC-Halls<br>A&B / 423 CC-<br>Halls A&B |   |                                    |           |
| MKTG              |  |  |                     | 416 CC-321   |   |                                    |           |
| NPAR              | 297 CC-346                                 | 310 CC-336 /<br>330 CC-337<br>/353 CC-Halls<br>A&B |                     | 405 CC-324   |   | KEY<br>30 CC-2                     | 10        |
| Q&P               |  | 343 CC-339   |                     | 391 CC-336   |   |                                    |           |
| RISK              | 276 CC-303 /<br>285 CC-304                 |  |                     | 412 CC-323   | (   | 30 = Session Numb<br>CC = Building |           |
| SBRJ              |  | 316 CC-317   |                     |  | 4   | 210 = Room Numb                    | er        |
| SBSS              | 269 CC-343 /<br>288 CC-344 /<br>296 CC-345 | 332 CC-322 /<br>355 CC-Halls<br>A&B                |                     | 392 CC-327 /<br>404 CC-326 /<br>422 CC-Halls<br>A&B        |   |                                    |           |
| SGG               | 300 CC-337                                 | 317 CC-310 /<br>323 CC-303                         |                     | 408 CC-348 /<br>418 CC-Halls<br>A&B                        |   |                                    |           |
| SLDS              | 265 CC-309 /<br>304 CC-313                 | 321 CC-346 /<br>334 CC-325 /<br>335 CC-326         |                     | 376 CC-<br>331/332 / 415<br>CC-330                         | 424 CC-Halls<br>A&B / 425 CC<br>Halls A&B |                                    |           |
| SOC               | 271 CC-317 /<br>283 CC-320                 | 333 CC-323 /<br>334 CC-325                         |                     | 410 CC-316 /<br>420 CC-Halls<br>A&B / 423 CC-<br>Halls A&B | 424 CC-Halls<br>A&B                       | 5                                  |           |
| SPES              | 267 CC-340 /<br>280 CC-341                 | 335 CC-326   |                     | 411 CC-322   | 425 CC-Halls<br>A&B                       | ;                                  |           |
| SPORTS            | 289 CC-321                                 | 313 CC-340   |                     |  |   |                                    |           |
| SRMS              | 282 CC-319 /<br>301 CC-324                 | 356 CC-Halls<br>A&B                                |                     | 381 CC-310 /<br>396 CC-318 /<br>409 CC-312                 |   |                                    |           |
| SSC               | 273 CC-315                                 |  |                     |  |   |                                    |           |
| SSPA              | 278 CC-327 /<br>293 CC-326                 | 326 CC-343 /<br>351 CC-Halls<br>A&B                | 359 CC-Halls<br>A&B |  |   |                                    |           |
| Statlmage         | 264 CC-316                                 | 342 CC-320 /<br>347 CC-Halls<br>A&B                |                     | 399 CC-315   |   |                                    |           |
| TSHS              | 290 CC-318                                 | 334 CC-325   |                     |  | 424 CC-Halls<br>A&B                       | 5                                  |           |
| WNAR              | 284 CC-329                                 |  |                     | 390 CC-339   |   |                                    |           |



|           |   | Wednes                                   | day, August 2 |   |               |
|-----------|---|--|---------------|---|---------------|
| Sponsor   | 8:30 a.m.   | 10:30 a.m.                               | 11:35 a.m.    | 2:00 p.m.   | 4:00 p.m.     |
| ACCCP     | 449 CC-321  |  |               |   |               |
| AAAS      |   |  |               | 555 CC-304  |               |
| B&E       | 453 CC-330  | 507 CC-328 / 520<br>CC-Halls A&B         |               | 558 CC-329 / 580<br>CC-328                              |               |
| BIOM      | 455 CC-311 / 464<br>CC-312 / 465 CC-313<br>/ 466 CC-314 | 501 CC-303 / 504<br>CC-317               |               | 557 CC-315 / 573<br>CC-317 / 577 CC-310<br>/ 578 CC-314 |               |
| BIOP      | 438 CC-308 / 458 CC-<br>319 / 467 CC-315                | 497 CC-315 / 505 CC-<br>320 / 506 CC-319 |               | 568 CC-311 / 570 CC-<br>319 / 579 CC-320                |               |
| CASoc     |   | 492 CC-321                               |               |   |               |
| LGBTCC    |   | 527 CC-Halls A&B                         |               |   |               |
| CNSL      | 450 CC-318  | 495 CC-324                               |               |   |               |
| COPSS     |   |  |               |   | 590 CC-Hall D |
| Computing | 475 CC-347  | 518 CC-347                               |               | 548 CC-341  |               |
| EDUC      | 476 CC-341  | 480 CC-341                               |               | 574 CC-321  |               |

BALTIMÓRE

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## TECHNICAL SESSIONS



|         |  | Wednes   | day, August 2    |   |                     |
|---------|--|--|------------------|---|---------------------|
| Sponsor | 8:30 a.m.                                | 10:30 a.m.   | 11:35 a.m.       | 2:00 p.m.   | 4:00 p.m.           |
| ENAR    | 451 CC-303 / 468<br>CC-304               | 484 CC-316   |                  | 549 CC-309  |                     |
| ENVR    | 456 CC-324                               | 481 CC-327   |                  | 589 CC-346  |                     |
| EPI     | 457 CC-316 / 463<br>CC-326               | 494 CC-311   | 531 CC-Halls A&B | 583 CC-322  |                     |
| GOVT    | 454 CC-343 / 469<br>CC-344               | 508 CC-344 / 509<br>CC-345   |                  | 550 CC-344 / 567<br>CC-345                            |                     |
| GRPH    |  |  |                  | 587 CC-343  |                     |
| HPSS    | 443 CC-327                               |  |                  | 564 CC-347  |                     |
| ICSA    |  | 511 CC-304   |                  |   |                     |
| IISA    |  |  |                  | 551 CC-313  |                     |
| IMS     | 436 CC-337 / 442 CC-<br>338 / 444 CC-310 | 477 CC-336 / 478<br>CC-330 / 486 CC-<br>Ballroom I / 510<br>CC-322 |                  | 553 CC-331/332 /<br>560 CC-Ballroom I /<br>569 CC-330 | ,                   |
| JASAAPP |  |  |                  | 561 CC-308  |                     |
| JQAS    |  | 490 CC-310   |                  |   | KEY                 |
| JSMPS   | 435 CC-Ballroom I                        |  |                  |   |                     |
| LDAIG   |  | 496 CC-343   |                  |   | 30 CC-210           |
| MDD     | 471 CC-320                               | 500 CC-313   |                  |   | 30 = Session Number |
| MEM     |  |  |                  | 554 CC-303  | CC = Building       |
| MHSS    | 446 CC-328                               |  |                  |   | 210 = Room Number   |
| MKTG    | 448 CC-336                               | 524 CC-Halls A&B   |                  |   | -                   |
| NOETHER |  | 489 CC-308   |                  |   |                     |
| NPAR    | 474 CC-348                               | 479 CC-338 / 499<br>CC-337   |                  | 582 CC-323  |                     |
| Q&P     |  | 521 CC-Halls A&B   |                  | 556 CC-326  |                     |
| RISK    |  | 488 CC-349 /523 CC-<br>Halls A&B                                   |                  | 566 CC-339  |                     |
| RSS     |  | 502 CC-318   |                  |   |                     |
| SA      |  | 491 CC-309   |                  |   |                     |
| SBSS    | 452 CC-349 / 470<br>CC-350               | 485 CC-325 / 493 CC-<br>329 / 512 CC-323                           |                  | 581 CC-325  |                     |
| SDNS    | 439 CC-329                               |  |                  | 572 CC-338  |                     |
| SGG     | 441 CC-317 / 463<br>CC-326               | 513 CC-312   | 531 CC-Halls A&B | 565 CC-316 / 584<br>CC-312                            |                     |
| SLDS    | 460 CC-322 / 461<br>CC-323               | 483 CC-350 / 519 CC-<br>348 / 529 CC-Halls<br>A&B                  |                  | 588 CC-337  |                     |
| SOC     | 473 CC-339                               | 498 CC-342   |                  | 552 CC-350  |                     |



|           |   | Wednes                               | day, August 2 |                            |           |
|-----------|---|--------------------------------------|---------------|----------------------------|-----------|
| Sponsor   | 8:30 a.m.   | 10:30 a.m.                           | 11:35 a.m.    | 2:00 p.m.                  | 4:00 p.m. |
| SPAAC     |   | 503 CC-Halls A&B                     |               |                            |           |
| SPES      |   | 487 CC-326 / 522<br>CC-Halls A&B     |               | 571 CC-336                 |           |
| SPORTS    | 447 CC-331/332  | 515 CC-314                           |               |                            |           |
| SRMS      | 437 CC-340 / 459<br>CC-345 / 462 CC-325<br>/ 472 CC-346 | 516 CC-346 /530 CC-<br>Halls A&B     |               | 563 CC-349 / 586<br>CC-348 |           |
| SSC       |   | 482 CC-331/332 /<br>528 CC-Halls A&B |               |                            |           |
| SSPA      |   |                                      |               | 559 CC-340                 |           |
| SWB       |   | 526 CC-Halls A&B                     |               |                            |           |
| Stat Bus  |   |                                      |               | 575 CC-318                 |           |
| Statlmage |   | 514 CC-339                           |               | 585 CC-342                 |           |
| TSHS      | 440 CC-342  |                                      |               | 576 CC-324                 |           |
| TSIG      |   | 517 CC-340 / 525 CC-<br>CC-Halls A&B |               |                            |           |
| WNAR      | 445 CC-309  |                                      |               |                            |           |
| WOMEN     |   |                                      |               | 562 CC-327                 |           |



#### BALTIMORE CONVENTION CENTER

**Network:** JSM2017 No password needed

### HILTON BALTIMORE

Network: Hilton MTG Password: JSM2017

Sponsored by abbyie

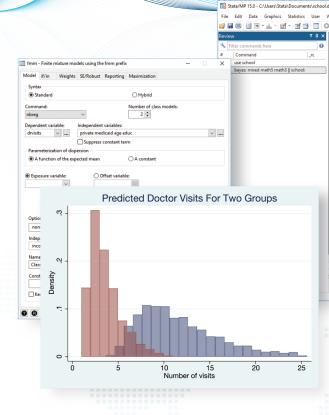




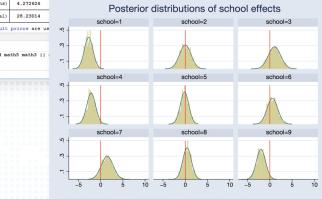
| Thursday, August 3 |   |   |                                    |  |  |  |  |  |  |
|--------------------|---|---|------------------------------------|--|--|--|--|--|--|
| Sponsor            | 8:30 a.m.   | 10:30 a.m.  |                                    |  |  |  |  |  |  |
| AcadReps           |   | 644 CC-318  |                                    |  |  |  |  |  |  |
| B&E                | 604 CC-317 / 621 CC-319                           | 632 CC-339  |                                    |  |  |  |  |  |  |
| BIOM               | 608 CC-345 / 618 CC-346 / 619 CC-344              | 653 CC-345 / 658 CC-344                           |                                    |  |  |  |  |  |  |
| BIOP               | 607 CC-341 / 620 CC-343                           | 650 CC-341 / 651 CC-310 / 659 CC-342 / 660 CC-343 |                                    |  |  |  |  |  |  |
| CNSL               | 602 CC-321  | 657 CC-321  | 657 CC-321                         |  |  |  |  |  |  |
| Computing          |   | 649 CC-319 / 670 CC-312                           | 649 CC-319 / 670 CC-312            |  |  |  |  |  |  |
| EDUC               | 629 CC-326  | 654 CC-327  | 654 CC-327                         |  |  |  |  |  |  |
| ENAR               | 595 CC-348 / 605 CC-339                           | 661 CC-348  | 661 CC-348                         |  |  |  |  |  |  |
| ENVR               | 594 CC-336  | 648 CC-336 / 665 CC-337 / 671 CC-338              |                                    |  |  |  |  |  |  |
| EPI                | 606 CC-337 / 625 CC-338                           | 642 CC-349 / 666 CC-347                           |                                    |  |  |  |  |  |  |
| GOVT               | 593 CC-328 / 603 CC-327                           | 662 CC-326  |                                    |  |  |  |  |  |  |
| GRPH               | 599 CC-323  |   |                                    |  |  |  |  |  |  |
| HPSS               | 597 CC-331/332 / 610 CC-330                       | 664 CC-330  |                                    |  |  |  |  |  |  |
| IMS                | 591 CC-309 / 598 CC-310 / 612 CC-306 / 622 CC-304 | 637 CC-303 / 641 CC-309 / 663 CC-304              |                                    |  |  |  |  |  |  |
| ISBA               |   | 636 CC-315  |                                    |  |  |  |  |  |  |
| JUQ                |   | 643 CC-320  |                                    |  |  |  |  |  |  |
| KISS               | 609 CC-303  |   |                                    |  |  |  |  |  |  |
| MDD                | 624 CC-329  |   | KEY                                |  |  |  |  |  |  |
| MEM                | 592 CC-308  |   | $20 CC_{-}210$                     |  |  |  |  |  |  |
| MHSS               |   | 645 CC-329  | 30 CC-210                          |  |  |  |  |  |  |
| NCTM               | 601 CC-318  |   | 30 = Session Number                |  |  |  |  |  |  |
| NPAR               | 617 CC-312  | 631 CC-308 / 669 CC-306                           | CC = Building<br>210 = Room Number |  |  |  |  |  |  |
| SBSS               | 615 CC-316 / 623 CC-311                           | 639 CC-314 / 656 CC-311                           |                                    |  |  |  |  |  |  |
| SDNS               | 596 CC-315  | 647 CC-313  |                                    |  |  |  |  |  |  |
| SGG                | 626 CC-347  | 667 CC-346  |                                    |  |  |  |  |  |  |
| SLDS               | 611 CC-314 / 630 CC-313                           | 635 CC-316  |                                    |  |  |  |  |  |  |
| SOC                | 616 CC-325  |   |                                    |  |  |  |  |  |  |
| SPES               | 628 CC-320  |   |                                    |  |  |  |  |  |  |
| SRMS               | 613 CC-322 / 627 CC-324                           | 638 CC-325 / 652 CC-324 / 668                     | CC-322                             |  |  |  |  |  |  |
| SSC                |   | 633 CC-331/332                                    |                                    |  |  |  |  |  |  |
| SSPA               |   | 646 CC-317  |                                    |  |  |  |  |  |  |
| SXP                | 614 CC-342  |   |                                    |  |  |  |  |  |  |
| StatImage          |   | 640 CC-328  |                                    |  |  |  |  |  |  |
| TSIG               |   | 655 CC-323  | 655 CC-323                         |  |  |  |  |  |  |
| WNAR               | 600 CC-340  | 634 CC-340  |                                    |  |  |  |  |  |  |
|                    |   |   |                                    |  |  |  |  |  |  |



## Announcing **Stata** release 15



| ita                                    |              |            |          |            |            |              |           | -          | - 1    |       | ×     |
|--|--------------|------------|----------|------------|------------|--------------|-----------|------------|--------|-------|-------|
| Vindow Help                            |              |            |          |            |            |              |           |            |        |       |       |
| - 0                                    |              |            |          |            |            |              |           |            |        |       |       |
|  |              |            |          |            |            |              | _         |            |        |       | -     |
| Bayesian multilevel regression         |              |            | MCMC ite |            | 12,500     | ^ V          | ariables  |            | т      | . † × |       |
| Metropolis-Hastings and Gibbs sampling |              |            | Burn-in  | -          | 2,500      | 3            | Filter va | riables h  | nere   |       |       |
| Group variable: school                 |              |            |          | ple size = | 10,000     |              | Name      | Label      |        |       |       |
|  |              |            | Number o |            | 887        | - E          | school    | Schoo      |        |       |       |
|  |              |            |          | Acceptar   |            | .8091        | L         | math3      | Vear 3 |       |       |
|  |              |            |          | Efficier   | ncy: min = | .03366       |           | math5      | Year 5 |       |       |
|  |              |            |          |            | avg =      | .1872        |           | mauro      | Teal J | maur  | score |
| Log marginal                           | likelihood = | -2802.1615 |          |            | max =      | . 6298       |           |            |        |       |       |
|  |              |            |          |            |            |              |           |            |        |       |       |
|  |              |            |          |            | Ferral 1   | tailed       |           |            |        |       |       |
|  | Mean         | Std. Dev.  | MCSE     | Median     | [95% Cred. |              |           |            |        |       |       |
|  |              | bour bern  |          | mouran     | (504 02001 | 10001041     |           |            |        |       |       |
| math5                                  |              |            |          |            |            |              |           |            |        |       |       |
| math3                                  | . 6087689    | .0326552   | .000436  | .6087444   | .5450837   | .6729982     |           |            |        |       |       |
| _cons                                  | 30.39202     | .3597873   | .01961   | 30.38687   | 29.67802   | 31.10252     |           |            |        |       |       |
| U0[school]                             | -            |            |          |            |            |              |           |            |        |       |       |
| UU[school]                             | -2.685824    | .9776969   | .031227  | -2.672364  | -4.633162  | 7837494      | <         |            |        |       | >     |
| 2                                      |              | 1,290535   | .03201   | .0041493   |            | 2.556316     |           | roperties  |        |       | a ×   |
| 3                                      | 1.049006     | 1,401383   | .033731  | 1.021202   | -1.534088  | 3.84523      |           |            |        |       | 4 ^   |
| 4                                      | -2.123055    | .9921679   | .028859  | -2.144939  | -4.069283  | 1507593      | 6         |            |        |       |       |
| 5                                      | 1504003      | .9650027   | .033881  | 1468966    | -2.093015  | 1.721503     | E         | Variables  |        |       |       |
| 6                                      | .5833945     | 1.192379   | .032408  | .5918357   | -1.660335  | 3.049718     |           | Name       |        |       |       |
| 7                                      | 1.490231     | 1.332917   | .033846  | 1.481793   | -1.095757  | 4.272903     |           | Label      |        |       |       |
| 8                                      |              | .9783772   | .031891  | .4579817   |            | 2.403908     |           | Туре       |        |       |       |
| 9                                      | -1.996105    | 1.02632    | .035372  | -2.001467  | -4.037044  | 0296276      |           | Format     |        |       |       |
| school                                 |              |            |          |            |            |              |           | Value labe | ł      |       |       |
| var( cons                              | 4.272626     |            |          |            |            |              |           |            |        |       |       |
|  |              | _          |          | Poster     | ior distr  | ibutions     | of        | scho       | ol e   | ffe   | cts   |
| man (Regidue)                          | 00 00014     |            |          | 1 00101    | ior aloa   | ib action to | . 01      | 00110      | 0.0    |       | 010   |



### New in Stata 15

- Bayesian multilevel models
- bayes: prefix for easily fitting Bayesian regression models
- Finite mixture models
- Latent class analysis
- Spatial autoregressive models
- Combine endogenous covariates, treatment effects, and sample selection
- Markdown—create HTML documents with Stata output, graphs ...

- · Power analysis for cluster randomized trials
- Nonlinear mixed-effects models
- Interval-censored survival models
- Nonparametric kernel regression
- Mixed logit models
- PDF and Word documents with Stata results and graphs
- Import data from Federal Reserve Economic Data (FRED)
- ICD-10-CM/PCS

- Heteroskedastic regression
- Zero-inflated ordered probit models
- Poisson regression with sample selection
- Multilevel tobit and interval regression
- Panel-data cointegration tests
- Stata in Swedish
- Transparency on graphs
- Much more!

Find out more. Visit us at booth #508 or online at stata.com/ism17.



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