

TUESDAY, JULY 31

Tours

TR07 Utah Olympic Park, Park City Main Street

8:30 a.m.–12:30 p.m. CC-South Foyer (200 South Street)

TR08 Salt Lake Historic Walking Tour

9:00 a.m.–12:00 p.m. CC-South Foyer (200 South Street)

TR09 Crossroads of the West City Tour

1:00 p.m.–4:00 p.m. CC-South Foyer (200 South Street)

**Committee/Business Meetings
& Other Activities**

7:00 a.m.–8:30 a.m.

GA-Venice

Committee on Statistics and Disability Annual Meeting (closed)*Chair(s): Joan Turek, U.S. Department of Health & Human Services*

7:00 a.m.–8:30 a.m.

GA-Belvedere

Committee on Minorities in Statistics (closed)*Chair(s): Nagambal D. Shah, Spelman College*

7:00 a.m.–8:30 a.m.

GA-Grenoble

Business and Economics Statistics Section Executive Committee Meeting (closed)*Chair(s): Badi H. Baltagi, Syracuse University*

7:00 a.m.–8:30 a.m.

GA-Bagatelle

JABES Management Committee Meeting (closed)*Chair(s): Timothy Gregoire, Yale University*

7:00 a.m.–8:30 a.m.

GA-Audubon

Section on Statisticians in Defense and National Security Business Meeting*Chair(s): Alyson G. Wilson, Los Alamos National Laboratory*

7:00 a.m.–8:30 a.m.

GA-Riviera

Committee on Individual Accreditation (closed)*Chair(s): Mary Batcher, Ernst & Young*

7:00 a.m.–8:30 a.m.

Off Property

Gertrude Cox Scholarship Race*Organizer(s): Tena Katsaounis, The Ohio State University*

7:00 a.m.–8:30 a.m.

GA-Tuscany

Scientific and Public Affairs Advisory Committee Open Meeting*Chair(s): David Marker, Westat*

7:00 a.m.–8:30 a.m.

GA-Embassy

Committee on Professional Ethics Meeting*Chair(s): Margaret Nemeth, Monsanto Company*

7:00 a.m.–10:00 a.m.

GA-Ambassador

Section on Physical and Engineering Sciences Executive Committee Meeting (closed)*Chair(s): Jennifer Van Mullekom, Capital One*

7:00 a.m.–10:00 a.m.

GA-Murano Garden Salon

Council of Chapters Business Meeting and Breakfast (closed)*Chair(s): J. Lynn Palmer, The University of Texas M. D. Anderson Cancer Center*

7:00 a.m.–6:00 p.m.

CC-252 A, CC-252B

Speaker Work Rooms

7:00 a.m.–11:00 p.m.

CC-South Foyer

Cyber Center

7:30 a.m.–8:30 a.m.

GA-Vienna

Technometrics Editorial Board Meeting (closed)*Chair(s): Randy R. Sitter, Simon Fraser University*

General Program Schedule

⚙ Themed Session

● Applied Session

❖ Presenter

CC-Salt Palace Convention Center

GA-The Grand America Hotel

7:30 a.m.–10:00 a.m.

GA-Sussex

Statistics in Biopharmaceutical Research Journal Editors and Advisory Committee

Chair(s): Joseph Heyse, Merck & Co., Inc.

7:30 a.m.–4:30 p.m.

GA-Envoy

ASA/NCTM Beyond AP Statistics (closed, separate registration fee required)

Chair(s): Roxy Peck, California Polytechnic State University

7:30 a.m.–4:30 p.m.

CC-South Foyer

JSM Main Registration and ASA Membership/Special Assistance Desk

8:00 a.m.–10:00 a.m.

CC-Kenneth Knight Board Room

Advisory Committee on Continuing Education Business Meeting (closed)

Chair(s): Katherine Halvorsen, Smith College

8:00 a.m.–10:00 a.m.

GA-Versailles

Addison Wesley Focus Group (closed)

Organizer(s): Liliana Molina, Addison Wesley

8:00 a.m.–12:00 p.m.

GA-Fontainebleau

Committee of Presidents of Statistical Societies Committee Meeting (closed)

Organizer(s): Jessica Utts, University of California, Davis

8:00 a.m.–6:00 p.m.

CC-Main Lobby, Level 2

Salt Lake City Visitors Information Center

8:00 a.m.–6:00 p.m.

CC-Exhibit Hall D

Exhibitor Lounge

8:00 a.m.–6:00 p.m.

CC-Exhibit Hall C

Career Placement Service

9:00 a.m.–10:00 a.m.

GA-Embassy

Mu Sigma Rho Executive Committee (closed)

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

9:00 a.m.–5:00 p.m.

CC-South Foyer

ASA Marketplace

9:00 a.m.–6:00 p.m.

CC-Exhibit Hall D

EXPO 2007

9:00 a.m.–6:00 p.m.

CC-Exhibit Hall D

ASA Booth #101

10:30 a.m.–1:00 p.m.

GA-Murano Garden Salon

ASA New Chapter Officers Meeting with Council of Chapters Vice Chairs

Chair(s): J. Lynn Palmer, The University of Texas M. D. Anderson Cancer Center

12:00 p.m.–2:00 p.m.

GA-Audubon

Journal of Computational and Graphical Statistics Editors Meeting (closed)

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

12:30 p.m.–1:30 p.m.

CC-250 A

IMS Business Meeting

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

12:30 p.m.–2:00 p.m.

GA-Vienna

JASA Editorial Board Luncheon (closed)

Chair(s): David Banks, Duke University

12:30 p.m.–2:00 p.m.

GA-Belvedere

Deming Lectureship Committee Speaker Luncheon (closed)

Chair(s): William H. Woodall, Virginia Polytechnic Institute and State University; Nicholas I. Fisher, University of Sydney

12:30 p.m.–2:00 p.m.

GA-Riviera

The American Statistician Luncheon (closed)

Chair(s): Peter Westfall, Texas Tech University

12:30 p.m.–4:30 p.m.

GA-Provence

ENAR RAB/RECOM Luncheon Meeting (closed, by invitation only)

Organizer(s): Kathy Hoskins, ENAR

1:30 p.m.–2:30 p.m.

CC-Ballrooms E-J

ASA Presidential Address and Awards Session Rehearsal (closed)

Chair(s): Sallie Keller-McNulty, Rice University

2:00 p.m.–3:30 p.m.

GA-Sussex

ASA Finance Committee Meeting (closed)

Chair(s): Sastry Pantula, North Carolina State University

2:00 p.m.–3:30 p.m.

GA-Ambassador

Council of Chapters Traveling Course*Chair(s): Stephen Simon, Children's Mercy Hospital*

4:00 p.m.–5:00 p.m.

GA-Embassy

JASA Reviews Board Meeting (closed)*Chair(s): Robert B. Lund, Clemson University*

4:00 p.m.–5:00 p.m.

GA-Ambassador

Statistics Project and Poster Competitions*Chair(s): Jerry Moreno, John Carroll University*

4:00 p.m.–6:00 p.m.

GA-Murano Garden Salon

**Council of Chapters Workshop and Reception:
Expanding Our Chapter Universe (closed)***Chair(s): B. Christine Clark, ICON Clinical Research*

4:30 p.m.–5:30 p.m.

CC-250 D

STATCOM: Students Providing Pro Bono Consulting to the Community*Organizer(s): Cherie Ochsenfeld, Purdue University*

4:30 p.m.–6:00 p.m.

GA-Venice

Biometrics Editorial Board (closed)*Organizer(s): Ann Hanhart, The International Biometric Society*

5:00 p.m.–6:00 p.m.

CC-155 E

Business and Economics Statistics Section Business Meeting*Chair(s): Badi H. Baltagi, Syracuse University*

5:00 p.m.–6:30 p.m.

GA-Grenoble

Centers for AIDS Research Statisticians Organizational Meeting (closed)*Organizer(s): Susan S. Ellenberg, University of Pennsylvania*

Tuesday



 **JSM INFORMAL
Dance Party**

Tuesday, July 31, 9:30 p.m.–midnight

Salt Palace Convention Center
Ballrooms A&C

General Program Schedule

⊕ Themed Session

● Applied Session

✦ Presenter

CC-Salt Palace Convention Center

GA-The Grand America Hotel

5:00 p.m.–7:00 p.m. GA-Vienna

North Carolina State University Alumni and Friends

Organizer(s): Tom Gerig, North Carolina State University

5:00 p.m.–7:00 p.m. GA-Versailles

Rice University Reception

Organizer(s): Katherine Ensor, Rice University

5:30 p.m.–6:30 p.m. CC-150 A-C

JSM 2009 Program Committee Orientation (closed)

Chair(s): Elaine Powell, American Statistical Association

5:30 p.m.–6:30 p.m. GA-Sussex

Russian and ex-USSR Statisticians Mixer

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

5:30 p.m.–6:30 p.m. CC-250 A

ENAR Business Meeting (open to all ENAR members)

Organizer(s): Kathy Hoskins, ENAR

5:30 p.m.–7:00 p.m. CC-155 C

Biopharmaceutical Section Annual Business Meeting and Mixer

Chair(s): Brian L. Wiens, Gilead Colorado

5:30 p.m.–7:00 p.m. CC-150 D-F

Section on Government Statistics Business Meeting

Chair(s): Steve H. Cohen, National Science Foundation

5:30 p.m.–7:00 p.m. GA-Audubon

IMS Student and New Member Reception

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

5:30 p.m.–7:00 p.m. CC-151 A-C

Committee on Gay and Lesbian Concerns in Statistics Social

Chair(s): Barry Johnson, Internal Revenue Service

5:30 p.m.–7:00 p.m. CC-155 B

Section on Nonparametric Statistics Business Meeting

Chair(s): Pranab K. Sen, The University of North Carolina at Chapel Hill

5:30 p.m.–7:00 p.m. CC-155 D

Section on Statistical Consulting Business Meeting

Chair(s): Stuart Gansky, University of California, San Francisco

5:30 p.m.–7:30 p.m. GA-Venezia Garden Salon

Joint Section on Quality & Productivity and Section on Physical and Engineering Sciences Business Meeting and Mixer

Chair(s): William Guthrie, National Institute of Standards and Technology; Jennifer Van Mullekom, Capital One

5:30 p.m.–7:30 p.m. CC-150 G

Section on Bayesian Statistical Science Mixer

Chair(s): Dipak Dey, University of Connecticut

5:30 p.m.–7:30 p.m. GA-Riviera

Section on Statistics in Epidemiology Social Mixer

Chair(s): Lisa M. Sullivan, Boston University

5:30 p.m.–7:30 p.m. GA-Milano

University of Michigan Joint Biostatistics and Statistics Departments Alumni Reception

Organizer(s): Roderick Little, University of Michigan

6:00 p.m.–6:30 p.m. CC-Ballrooms E-J

2007 ASA New Fellows Group Picture (closed)

Chair(s): Robert M. Bell, AT&T Research Labs

6:00 p.m.–7:00 p.m. CC-151 D-F

STATCOM Network Business Meeting

Organizer(s): Gayla R. Olbricht, Purdue University

6:00 p.m.–7:00 p.m. CC-250 B

Caucus for Women in Statistics Business Meeting

Organizer(s): Tena Katsaounis, The Ohio State University

6:00 p.m.–7:30 p.m. GA-Belvedere

Section on Statistics and the Environment Business Meeting and Social

Chair(s): Mary Christman, University of Florida

6:00 p.m.–8:00 p.m. CC-151 G

Committee on Minorities in Statistics Reception

Chair(s): Nagambal D. Shah, Spelman College

6:00 p.m.–8:00 p.m. GA-Savoy

A Reception To Celebrate Marvin Zelen's 80th Birthday and Cytel's 20th Anniversary

Organizer(s): Cyrus Mehta and Nitin Patel, Cytel Inc.

6:00 p.m.–8:00 p.m.

GA-Envoy

University of Wisconsin-Madison Reception*Organizer(s): Jun Shao, University of Wisconsin-Madison*

6:00 p.m.–8:00 p.m.

CC-Ballroom D

Pfizer Statistics Reception (closed)*Organizer(s): Tisha Duggan, Pfizer Inc.*

6:30 p.m.–8:00 p.m.

GA-Fontainebleau

CRC Press Reception (closed)*Organizer(s): Nadja English, CRC Press*

6:30 p.m.–8:00 p.m.

GA-Bagatelle

Interface Foundation of North America Board Meeting (closed)*Organizer(s): Tim Hesterberg, Insightful Corporation*

6:30 p.m.–8:30 p.m.

CC-155 A

Joint Section on Statistics and Marketing and Business and Economics Statistics Section Mixer*Chair(s): John C. Liechty, The Pennsylvania State University; Badi H. Baltagi, Syracuse University*

9:30 p.m.–12:00 a.m.

CC-Ballrooms A&C

JSM Informal Dance Party (all welcome, included in registration fee)**CE_24C****Dropout in Longitudinal Studies: Strategies for Bayesian Modeling and Sensitivity Analysis**

8:30 a.m.–5:00 p.m.

CC-150 G

Biometrics Section, ASA

*Instructor(s): Michael Daniels, University of Florida; Joseph W. Hogan, Brown University***CE_25C****Statistical Genetics**

8:30 a.m.–5:00 p.m.

CC-150 A-C

Biometrics Section, ASA

*Instructor(s): Kenneth Lange, University of California, Los Angeles; Janet Sinsheimer, University of California, Los Angeles; Eric Sobel, University of California, Los Angeles***CE_26C****Wavelets and Statistical Applications**

8:30 a.m.–5:00 p.m.

CC-150 D-F

Section on Bayesian Statistical Science, ASA

*Instructor(s): Brani Vidakovic, Georgia Institute of Technology; Marina Vanucci, Texas A&M University***CE_27C****Analysis of Censored Data**

8:30 a.m.–5:00 p.m.

CC-151 A-C

ASA

*Instructor(s): Danyu Lin, The University of North Carolina at Chapel Hill***Continuing Education (Fee Events)****CE_22C****Harnessing Data Streams Through Statistical Computing**

8:00 a.m.–12:00 p.m.

CC-151 D-F

Section on Statistical Computing, ASA

*Instructor(s): Simon Urbanek, AT&T Labs - Research; Tamraparni Dasu, AT&T Labs - Research***CE_23C****Statistical Monitoring of Clinical Trials: A Unified Approach**

8:30 a.m.–5:00 p.m.

CC-151 G

Biopharmaceutical Section, ASA

*Instructor(s): Michael Proschan, National Institute of Allergy and Infectious Diseases***CE_28C****Bootstrap Methods and Permutation Tests for Doing and Teaching Statistics**

1:00 p.m.–5:00 p.m.

CC-151 D-F

Section on Statistical Education, Section on Statistical Computing, ASA

Instructor(s): Tim Hesterberg, Insightful Corporation

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

212 CC-Ballroom D ASA Council of Chapters Roundtable with Coffee (fee event)

Council of Chapters

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

- TL01 AP Statistics and Local Chapters of the ASA—
❖ Dongseok Choi, Oregon Health & Science University

213 CC-Ballroom D Section on Health Policy Statistics Roundtable with Coffee (fee event)

Section on Health Policy Statistics

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

- TL02 Approaches to Measuring Differences in Health That Are Unaffected by the Prevalence of an Outcome—
❖ James P. Scanlan, Attorney at Law

214 CC-Ballroom D Section on Statistical Education Roundtable with Coffee (fee event)

Section on Statistical Education

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

- TL03 Coordinating the Large Undergraduate Course—
❖ Roger Woodard, North Carolina State University

215 CC-Ballroom D Section on Statistical Graphics Roundtable with Coffee (fee event)

Section on Statistical Graphics

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

- TL04 Network Visualization—❖ Deborah Swayne, AT&T Labs - Research

216 CC-Ballroom D Section on Statistics and Marketing Roundtable with Coffee (fee event)

Section on Statistics and Marketing

Organizer(s): Stan Lipovetsky, GfK Custom Research North America

- TL05 Statistics in Humor and Art—❖ Igor Mandel, Analytic Partners

217 CC-Ballroom D Section on Survey Research Methods Roundtable with Coffee (fee event)

Section on Survey Research Methods

Organizer(s): David Marker, Westat

- TL06 The Transition from Graduate School to a Career in Statistics—❖ Edward English, NORC at the University of Chicago

218 CC-Ballroom D Section on Teaching Statistics in the Health Sciences Roundtables with Coffee (fee event)

Section on Teaching Statistics in the Health Sciences

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

- TL07 Ideas for Improving Appreciation and Understanding of Cluster Sampling—❖ Winston A. Richards, The Pennsylvania State University, Harrisburg
- TL08 Interpreting Statistical Results from Medical Literature in the Classroom—❖ Kirk Anderson, Grand Valley State University

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

219 CC-Ballroom B Introductory Overview Lecture 3: Improving Statistical Presentations and Posters—Other

ASA, SSC, ENAR, IMS, WNAR

Organizer(s): Naomi Robbins, NBR-Graphs

Chair(s): Naomi Robbins, NBR-Graphs

- 8:35 a.m. Improving Statistical Presentations—❖ Mike Colopy, GlaxoSmithKline
- 9:20 a.m. Improving Statistical Posters—❖ Dianne Cook, Iowa State University
- 10:05 a.m. Floor Discussion

Invited Sessions 8:30 a.m.–10:20 a.m.**220 CC-255 A**
● Practical Designs in Early-Phase Cancer Trials—Invited

ENAR, Biopharmaceutical Section, WNAR

*Organizer(s): Ying-Kuen K. Cheung, Columbia University**Chair(s): Ying-Kuen K. Cheung, Columbia University*

8:35 a.m. **Comparing Two-Stage Treatment Strategies Based on Sequential Failure Times Subject to Interval Censoring**—❖ Peter F. Thall, The University of Texas M. D. Anderson Cancer Center; Leiko H. Wooten, The University of Texas M. D. Anderson Cancer Center; Nizar M. Tannir, The University of Texas M. D. Anderson Cancer Center; Randall E. Millikan, The University of Texas M. D. Anderson Cancer Center; Christopher J. Logothetis, The University of Texas M. D. Anderson Cancer Center

9:05 a.m. **Two-Stage Designs for Dose-Finding Trials with a Biologic Endpoint Using Stepwise Tests**—❖ Mei-Yin C. Polley, Amgen Inc.; Ying-Kuen K. Cheung, Columbia University

9:35 a.m. **A Strategic Approach to Designing Early Phase Cancer Trials**—❖ Tze Leung Lai, Stanford University; Philip Lavori, Stanford University; Mei-Chiung Shih, Stanford University

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

221 CC-251 E
● Valid and Reliable Disability Measurement in Surveys—Invited

Committee on Statistics and Disability, Social Statistics Section, Section on Survey Research Methods

*Organizer(s): David W. Keer, National Institute on Disability and Rehabilitation Research**Chair(s): Joan Turek, U.S. Department of Health & Human Services*

8:35 a.m. **Identifying the Population with Disabilities: A Comparison of Current Survey Estimates**—❖ Andrew J. Houtenville, Cornell University; S. Antonio Ruiz-Quintanilla, Cornell University; Robert Weathers, Mathematica Policy Research, Inc.

9:05 a.m. **The Development and Testing of Disability Questions for the Current Population Survey**—❖ Terence M. McMenamin, Bureau of Labor Statistics; Stephen M. Miller, Bureau of Labor

Statistics; Anne E. Polivka, Bureau of Labor Statistics

9:35 a.m. **Disability Data and the American Community Survey**—❖ Sharon Stern, U.S. Census Bureau

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

222 CC-355 F
● Present-Day Challenges in the Design and Analysis of Industrial Experiments—Invited

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

*Organizer(s): Timothy J. Robinson, University of Wyoming**Chair(s): Shaun S. Wulff, University of Wyoming*

8:35 a.m. **A Structural Approach to the Design of Experiments for Robust Parameter Design**—❖ Raymond H. Myers, Virginia Polytechnic Institute and State University

9:05 a.m. **A Posterior Predictive Approach to Multiple Response Surface Optimization**—John Peterson, GlaxoSmithKline; ❖ Enrique del Castillo, The Pennsylvania State University

9:35 a.m. **Componentwise Variance Dispersion Graphs for Mixture Experiments**—❖ John J. Borkowski, Montana State University; Boonorm Chomtee, Kasetsart University; Kamolchanok Choochaow, Silpakorn University

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

223 CC-255 E
● Toxicogenomics: From Concept to Regulatory Issues—Invited

Biopharmaceutical Section, Biometrics Section

*Organizer(s): Nandini Raghavan, Johnson & Johnson PRD**Chair(s): Dhammika Amaratunga, Johnson & Johnson PRD*

8:35 a.m. **Toxicogenomics for Toxicity Evaluation and Biomarker Identification**—❖ Hisham Hamadeh, Amgen Inc.

9:00 a.m. **Systematic Mining of a Large Gene Expression Database and Design of a Multi-Endpoint Diagnostic Device**—❖ Georges Natsoulis, Datahooks, Inc.

9:25 a.m. **Gene Signatures for Hepatotoxicants**—❖ Nandini Raghavan, Johnson & Johnson PRD; Dhammika Amaratunga, Johnson & Johnson PRD; Alex Nie, Johnson & Johnson PRD; Michael McMillian, Johnson & Johnson PRD

9:50 a.m. **Preparing the Critical Path to Acceptance of Toxicogenomic Data in Drug Safety Evaluation—**
❖ Alex Nie, Johnson & Johnson PRD

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

224 CC-355 B ● ⚙ Resampling Methods in Small-Area Estimation—Invited

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

Organizer(s): Ferry Butar Butar, Sam Houston State University

Chair(s): Robert Fay, U.S. Census Bureau

8:35 a.m. **Jackknife and Bootstrap Methods for Small-Area Estimation: An Appraisal—**❖ J. N. K. Rao, Carleton University

9:05 a.m. **On Small-Area Prediction Interval Problems—**Snigdhasu Chatterjee, The University of Minnesota; ❖ Partha Lahiri, University of Maryland; Huilin Li, University of Maryland

9:35 a.m. Disc: Peter Hall, The University of Melbourne

9:45 a.m. Disc: Sharon L. Lohr, Arizona State University

9:55 a.m. **Floor Discussion**

225 CC-250 A ● ⚙ Inference in Simple Dynamic Games with Multiple Equilibria—Invited

JBES-Journal of Business and Economic Statistics

Organizer(s): Serena Ng, University of Michigan

Chair(s): Serena Ng, University of Michigan

8:35 a.m. **The Identification Power of Equilibrium in Simple Games—**❖ Elie Tamer, Northwestern University

9:05 a.m. Disc: Victor Aguirregabiria, University of Toronto

9:15 a.m. Disc: Pat Bajari, The University of Minnesota Twin Cities

9:25 a.m. Disc: Han Hong, Stanford University

9:35 a.m. Disc: Allan Collard-Wexler, New York University

9:45 a.m. Disc: Shakeeb Khan, Duke University

9:55 a.m. Disc: Adam Rosen, University College London

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

226 CC-250 D Robust Inference and Model Selection—Invited

IMS, Biometrics Section, Section on Nonparametric Statistics

Organizer(s): Tianxi Cai, Harvard University

Chair(s): Tianxi Cai, Harvard University

8:35 a.m. **Localized Model Selection by Cross-Validation—**❖ Yuhong Yang, The University of Minnesota

9:00 a.m. **Selecting Models Using Incomplete Data—**❖ Gerda Claeskens, K.U. Leuven

9:25 a.m. **Predicting Future Responses Based on Possibly Mis-specified Working Models—**❖ Lu Tian, Northwestern University; Tianxi Cai, Harvard University; Scott Solomon, Brigham and Women's Hospital; Lee-Jen Wei, Harvard University

9:50 a.m. Disc: Thomas Lumley, University of Washington

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

227 CC-155 F ● ⚙ Innovative Imputation Methods in Health Research—Invited

Section on Health Policy Statistics, Biometrics Section, Section on Teaching Statistics in the Health Sciences, Section on Survey Research Methods, WNAR

Organizer(s): Alan M. Zaslavsky, Harvard University; Yulei He, Harvard Medical School

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

8:35 a.m. **Using a Mixture Model for Multiple Imputation in the Presence of Outliers—**❖ Michael R. Elliott, University of Michigan; Nicolas Stettler, Children's Hospital of Philadelphia

9:00 a.m. **Imputing Under-Reported Treatments Using Multiple Sources of Treatment Information in a Cancer Services Study—**❖ Alan M. Zaslavsky, Harvard University; Yulei He, Harvard Medical School

9:25 a.m. **Statistics and Lies: Correcting Questionnaire Ordering Effect via Multiple Imputation—**❖ Xiao-li Meng, Harvard University; Jingchen Liu, Harvard University; Chih-nan Chen, Boston University; Margarita Alegria, Cambridge Health Alliance

9:50 a.m. Disc: Nathaniel Schenker, National Center for Health Statistics

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

American Statistical Association
Presidential Address & Awards Session

Mary Ellen Bock, ASA President

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

Salt Palace Convention Center

Ballrooms E-J



Is your associate, professor, student, colleague, friend, or organization being recognized at the Joint Statistical Meetings in Salt Lake City?



Samuel S. Wilks
Memorial Award



Edward C. Bryant
Scholarship



Gertrude M. Cox
Scholarship



Gottfried E. Noether
Awards



W. J. Youden Award
in Lab Testing

- ★ *Statistics in Chemistry Award*
- ★ *ASA Fellows*
- ★ *Founders Award*
- ★ *Outstanding Statistical Application Award*
- ★ *Statistical Partnerships among Academe, Industry, and Government (SPAIG) Award*

Plan to attend the ASA Presidential Address and Awards Session for the recognition of the ASA's most distinguished members.

228

CC-250 EF

⬢ The Bayesian Frequentist Interface: Is the Difference One of Methodology or of Other Information?—Invited

SSC, Section on Bayesian Statistical Science, ENAR, Section on Survey Research Methods

Organizer(s): Donald A.S. Fraser, University of Toronto

Chair(s): Nancy Reid, University of Toronto

- 8:35 a.m. Adaptive MCMC Using Stratified Proposals for Bayesian and Frequentist Inference—❖ Mylène Bédard, University of Warwick; Donald A.S. Fraser, University of Toronto; Augustive C.M. Wong, York University
- 9:05 a.m. Improved Likelihood Inference for Vector Parameters with Discrete Data—❖ Nicola Sartori, University of Venice
- 9:35 a.m. Default Priors for Frequentist and Bayesian Inference—❖ Donald A. S. Fraser, University of Toronto
- 10:05 a.m. Floor Discussion

229

CC-355 E

Medallion Lecture III—Invited

IMS, General Methodology

Organizer(s): Tony Cai, University of Pennsylvania

Chair(s): Jianqing Fan, Princeton University

- 8:35 a.m. Functional Regression Analysis: Models, Methods, and Applications—❖ Hans-Georg Müller, University of California, Davis
- 9:30 a.m. Disc: Chunming Zhang, University of Wisconsin-Madison
- 9:45 a.m. Disc: Fang Yao, University of Toronto
- 10:00 a.m. Floor Discussion

230

CC-155 C

● ⬢ The Future of Pro Bono Statistics—Invited

Section on Statistical Consulting

Organizer(s): Nilupa S. Gunaratna, Purdue University

Chair(s): Fritz Scheuren, NORC at the University of Chicago

- 8:35 a.m. Volunteerism in the ASA—❖ David Banks, Duke University
- 9:00 a.m. A Role for Students in Pro Bono Statistics—❖ Gayla R. Olbricht, Purdue University
- 9:25 a.m. Pro Bono Statistics and Public Policy—❖ Yasmin H. Said, George Mason University

- 9:50 a.m. Disc: George P. McCabe, Purdue University
- 10:10 a.m. Floor Discussion

231

CC-155 D

● ⬢ Using Environmental Information for Rational Decisionmaking—Invited

Section on Statistics and the Environment, Section on Risk Analysis

Organizer(s): Barry D. Nussbaum, U.S. Environmental Protection Agency

Chair(s): Barry D. Nussbaum, U.S. Environmental Protection Agency

- 8:35 a.m. Virus and Indicator Occurrence in Ground Water Sources of Public Drinking Water—❖ Michael J. Messner, U.S. Environmental Protection Agency; Crystal Rodgers, U.S. Environmental Protection Agency
- 9:00 a.m. A Bayesian Approach to EPA's Data Quality Objectives Process—❖ Paul K. Black, Neptune and Company, Inc.; Mark Fitzgerald, Neptune and Company, Inc.; Tom Stockton, Neptune and Company, Inc.
- 9:25 a.m. Strengthening Environmental Decisionmaking Through Data Quality Objectives—❖ John Warren, U.S. Environmental Protection Agency
- 9:50 a.m. Disc: William F. Hunt, Jr., North Carolina State University
- 10:10 a.m. Floor Discussion

232

CC-355 C

● ⬢ Multiple Comparisons and Experimental Replication—Invited

Section on Bayesian Statistical Science

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

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

- 8:35 a.m. Synthesis of Bayes Factors and Estimation for Large Samples: Adaptive Hypothesis Testing Intervals (AHTI)—❖ Luis R. Pericchi, University of Puerto Rico, San Juan; Maria E. Perez, University of Puerto Rico, San Juan
- 9:05 a.m. Why There Are So Many Contradicted or Exaggerated Findings in Highly Cited Clinical Research—❖ Ying Yuan, The University of Texas M. D. Anderson Cancer Center; Valen Johnson, The University of Texas M. D. Anderson Cancer Center
- 9:35 a.m. Bayesian Decision Theory for Multiplicities—❖ Kenneth Rice, University of Washington
- 10:05 a.m. Floor Discussion

Topic-Contributed Sessions

8:30 a.m.–10:20 a.m.

233

CC-255 D

● ⊛ Radiation Epidemiology and Statistical Methods—Topic-Contributed

Section on Statistics in Epidemiology, ENAR

*Organizer(s): N. Phillip Ross, Radiation Effects Research Foundation**Chair(s): N. Phillip Ross, Radiation Effects Research Foundation*

- 8:35 a.m. **Health Effects of Induced Radiation from the Atomic Bombings of Hiroshima and Nagasaki—**
❖ Fumiyoshi Kasagi, Radiation Effects Research Foundation
- 8:55 a.m. **Modeling Effects of Radiation Exposure on Disease Outcomes with Radiation-Influenced Risk Factors (RFs), using Adult Health Study (AHS) Data—**
❖ Kenneth Kopecky, Fred Hutchinson Cancer Research Center; Lori A. Williams, University of Washington
- 9:15 a.m. **Biodosimetry in the A-Bomb Survivors' Cohort—**
❖ Daniel Stram, University of Southern California
- 9:35 a.m. **Uncertainty of Estimated Radiation Doses Among Atomic Bomb Survivors: Using Multiple Sources of Information on Errors in the Main Exposure Variable of Health Effects Studies—**❖ Harry Cullings, Radiation Effects Research Foundation; Eric J. Grant, Radiation Effects Research Foundation; Sachiyo Funamoto, Radiation Effects Research Foundation; Sachiko Teranishi, Radiation Effects Research Foundation
- 9:55 a.m. **Descriptive Models for Excess Risks Following Radiation Exposure—**❖ Dale Preston, Hirosoft International
- 10:15 a.m. **Floor Discussion**

234

CC-260

● ⊛ New Developments in Causal Inference—Topic-Contributed

Biometrics Section, ENAR

*Organizer(s): Jing Cheng, University of Florida**Chair(s): Kenneth Shirley, University of Pennsylvania*

- 8:35 a.m. **Structural Nested Mean Models for Time-Varying Causal Effect Moderation—**❖ Daniel Almirall, University of Michigan; Thomas R. Tenhave, University of Pennsylvania; Susan Murphy, University of Michigan
- 8:55 a.m. **Estimation and Inference for the Causal Effect of**

Receiving Treatment on a Multinomial Outcome—
❖ Jing Cheng, University of Florida

- 9:15 a.m. **Statistical Analysis of Randomized Experiments with Nonignorable Missing Outcomes—**❖ Kosuke Imai, Princeton University
- 9:35 a.m. **Correcting for Survivor Treatment-Selection Bias with a Structural Failure-Time Model: Survival in Oscar Award-Winning Performers—**❖ Xu Han, University of Pennsylvania; Dylan Small, University of Pennsylvania; Vishal Patel, University of Pennsylvania; Dean Foster, University of Pennsylvania
- 9:55 a.m. **Estimating Surrogate Endpoints Defined by Principal Causal Effects—**❖ Shiro Tanaka, University of Tokyo; Yutaka Matsuyama, University of Tokyo; Yasuo Ohashi, University of Tokyo
- 10:15 a.m. **Floor Discussion**

235

CC-255 F

● ⊛ Statistical Analysis of Medical Device Studies—Topic-Contributed

Biopharmaceutical Section, ENAR, WNAR

*Organizer(s): Steve Boeh, Medtronic Inc.**Chair(s): Cynthia DeSouza, Vertex Pharmaceuticals, Inc.*

- 8:35 a.m. **Assessing Poolability of Data for a Clinical Trial: Why the Data Should Be Poolable and Why the Data Should Not Be Poolable—**❖ David Naftel, The University of Alabama at Birmingham
- 8:55 a.m. **Primary Endpoint Sensitivity Analysis on Missing Data in Medical Device Trials—**❖ Gina Garding, Boston Scientific Corporation; Nathan Carter, Boston Scientific Corporation; Eric Bass, Boston Scientific Corporation; Paul Cernohous, Boston Scientific Corporation
- 9:15 a.m. **Challenges and Issues of Intent-to-Treat Analysis in Cardiac Device Studies—**❖ Li Ding, Medtronic Inc.; Steve Boeh, Medtronic Inc.
- 9:35 a.m. **Assessment of the Success of the Propensity Score Estimation and Appropriate Adjustment in a Drug Eluting Stent Post-Marketing Registry—**❖ Yun Lu, Boston Scientific Corporation; Kevin Najarian, Boston Scientific Corporation; Aijun Song, Boston Scientific Corporation
- 9:55 a.m. **Bayesian Approach to Meta-Analysis in Medical Device Trials Using Mixed Effects Models—**
❖ Lijuan Deng, Boston Scientific Corporation; Hong Wang, Boston Scientific Corporation; Liang Li, Genzyme Corporation
- 10:15 a.m. **Floor Discussion**

236

CC-250 B

⬢ Nonparametric Methods for Complex and Difficult Data—Topic-Contributed

IMS, Section on Nonparametric Statistics

Organizer(s): Mu Zhu, University of Waterloo

Chair(s): Yulia R. Gel, University of Waterloo

- 8:35 a.m. **Covariance Selection by Sparse Regression**—❖ Jie Peng, University of California, Davis; Pei Wang, Fred Hutchinson Cancer Research Center
- 8:55 a.m. **On Single-Index Models**—❖ Yan Yu, University of Cincinnati; Zhou Wu, University of Cincinnati; Haiqun Lin, Yale University
- 9:15 a.m. **CLUES: A Nonparametric Clustering Method Based on Local Shrinking**—❖ Xiaogang Wang, York University
- 9:35 a.m. **Longitudinal Modeling When Response and Time-Dependent Covariates Are Measured at Different Time Points**—❖ Joel Dubin, University of Waterloo; Xiaoqin Xiong, University of Waterloo
- 9:55 a.m. **Regularized Autoregressive Approximation: A Bridge Between Estimation and Model Selection**—❖ Bei Chen, University of Waterloo; Yulia R. Gel, University of Waterloo
- 10:15 a.m. **Floor Discussion**

- 9:35 a.m. **Bayesian Semiparametric Estimation of Random Coefficients Discrete Choice Models Using Aggregate Data**—❖ Sylvie Tchuente, University of Waterloo
- 9:55 a.m. **Disc: Mario Peruggia, The Ohio State University**
- 10:15 a.m. **Floor Discussion**

237

CC-155 E

● ⬢ Bayesian Applications in Marketing—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Thomas Otter, The Ohio State University

Chair(s): Thomas Otter, The Ohio State University

- 8:35 a.m. **A Simultaneous Quantile Regression Model for Customer Linkage Analysis**—❖ Jeffrey Dotson, The Ohio State University; Joseph J. Retzer, Maritz Research; Greg M. Allenby, The Ohio State University
- 8:55 a.m. **Disentangling Preferences, Inertia, and Learning in Brand Choice Models**—❖ Sangwoo Shin, University of Rochester; Sanjog Misra, University of Rochester; Dan Horsky, University of Rochester
- 9:15 a.m. **A Model of State Dependence Based on Auto- and Cross-Correlated Exponential Processes with an Application to Household Panel Data**—❖ Xiuyun Zhang, The Ohio State University; Thomas Otter, The Ohio State University; Mario Peruggia, The Ohio State University

238

CC-254 B

● ⬢ Leonard J. Savage Awards—Topic-Contributed

Section on Bayesian Statistical Science

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

Chair(s): Alan E. Gelfand, Duke University

- 8:35 a.m. **Semiparametric Models in Bayesian Event History Analysis Using Beta Processes**—❖ Pierpaolo De Biasi, University of Turin
- 8:55 a.m. **Density Estimation and Dimension Reduction with Logistic Gaussian Process Priors**—❖ Surya Tokdar, Carnegie Mellon University
- 9:15 a.m. **Structure and Sparsity in High-Dimensional Multivariate Analysis**—❖ Carlos Carvalho, Duke University
- 9:35 a.m. **Bayesian Treed Gaussian Process Models**—❖ Robert Gramacy, University of Cambridge
- 9:55 a.m. **Floor Discussion**

239

CC-251 F

● ⬢ Opportunities and Challenges of Integrated Datasets To Serve Policy Research: The Medicaid Undercount Study—Topic-Contributed

Section on Government Statistics, Section on Health Policy Statistics, Social Statistics Section

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

Chair(s): Linda Gage, California Department of Finance

- 8:35 a.m. **Opportunities and Challenges Facing the Construction of Integrated Datasets To Serve Policy Research Purposes**—❖ Michael Davern, The University of Minnesota
- 8:55 a.m. **Analysis of Medicaid Enrollment Status in the Current Population Survey**—❖ Ming-Yi K. Mah, U.S. Census Bureau; Dean M. Resnick, U.S. Census Bureau
- 9:15 a.m. **How Do Surveys Differ in Reporting the Quality of Reported Medicaid Enrollment Data: NHIS, CPS, and State Surveys**—❖ Kathleen Call, The University of Minnesota

9:35 a.m. **Larger Statistical and Policy Implications of Moving Toward Interagency Collaborations and Integrated Data**—❖ Sally Obenski, U.S. Census Bureau

9:55 a.m. Disc: Todd Rockwood, The University of Minnesota

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

240 **Alternative Approaches to the Introductory Applied Statistics Course—Topic-Contributed**

CC-251 A

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

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

Chair(s): Phyllis Curtiss, Grand Valley State University

8:35 a.m. **Alternate Topic Sequencing in the Introductory Applied Statistics Course**—❖ John Gabrosek, Grand Valley State University

8:55 a.m. **Integrating Data Analysis with Parametric Inference in Undergraduate Statistics**—❖ Larry Weldon, Simon Fraser University

9:15 a.m. **Comparison of a Traditionally Taught Introductory Statistics Course to a Completely Online Version of the Same Course**—❖ Gail Tudor, Husson College

9:35 a.m. **Team-Based Learning in an Introductory Applied Statistics Course**—❖ Paul Fields, Brigham Young University

9:55 a.m. **Active Student Learning Model of Statistics Education**—❖ Ralph Turner, University of the Sciences in Philadelphia

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

University of Utah Statistics Position

The Department of Mathematics at the University of Utah invites applications for a tenure-track position (or tenured, in exceptional cases) in all areas of statistics. Availability of positions is contingent upon funding. The Hiring Committee will select candidates based on excellence in research and teaching.

In order to apply for any of these positions, you must fill out an application at <http://www.mathjobs.org/>. To complete your application, submit a curriculum vitae, bibliography, and five letters of recommendation, including, if possible, one letter addressing teaching abilities. It is advised that applicants submit a research and teaching statement. It is not necessary to send preprints or reprints with the initial applications. Application material can be submitted through the above website (**preferred**) or they may be sent by US mail to: *Committee on Staffing, Department of Mathematics, University of Utah, 155 S 1400 E, JWB 233, Salt Lake City, UT 84112*. Completed applications will be considered starting October 1, 2007, and positions may be offered from that date on. Applications will be accepted until positions are filled.

The University of Utah is an Equal Opportunity, Affirmative Action Employer and encourages applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees.

The department is one of 25 Group I Mathematics Departments in public institutions nationwide, and its faculty have received many honors including Guggenheim, Packard, and Sloan Fellowships. It has active VIGRE and IGERT programs. For more information see <http://www.math.utah.edu/positions/>.

241

CC-254 C

● ✧ Biostatistics and Bioinformatics at the Interface—Topic-Contributed

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

Organizer(s): Wei Zhu, State University of New York at Stony Brook

Chair(s): Wei Zhu, State University of New York at Stony Brook

- 8:35 a.m. **How Well Does Structural Equation Modeling (SEM) Reveal Weakened Brain Anatomical Connections? An fMRI Simulation Study—**❖ Jieun Kim, National Institutes of Health; Barry Horwitz, National Institutes of Health
- 8:55 a.m. **Correlation Analysis of the Transcriptomic and Proteomic Data in Platelet—**❖ Chen Ji, Stony Brook University; Wei Zhu, State University of New York at Stony Brook
- 9:15 a.m. **Optimal Designs Accounting for Potentially Missing Observation in Quantal Dose Responses—**❖ Inyoung Baek, Novartis Pharmaceuticals
- 9:35 a.m. **Power and Sample Size in Genetic Association Studies in Presence of Genotyping Error—**❖ Wonkuk Kim, Stony Brook University; Qing Wang, Stony Brook University; Derek Gordon, Rutgers University; Stephen J. Finch, Stony Brook University
- 9:55 a.m. **Locally Optimal Weighting and Classifier Selection in Ensembles—**❖ Melissa Fazzari, Stony Brook University; Hongshik Ahn, Stony Brook University; Wei Zhu, State University of New York at Stony Brook
- 10:15 a.m. **Floor Discussion**

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

242

CC-255 B

● ✧ Statistical Graphics for Everyday Use?—Topic-Contributed

Section on Statistical Graphics, Section on Statistical Consulting

Organizer(s): TBD

- Panelists:** ❖ John Emerson, Yale University
- ❖ Frederick Wicklin, SAS Institute Inc.
- ❖ Leland Wilkinson, SPSS Inc.

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

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

243

CC-258

● ✧ Analysis of Censoring/Truncated Data—Contributed

Biometrics Section

Chair(s): Bingshu Chen, National Institutes of Health

- 8:35 a.m. **Nonparametric Maximum Likelihood Estimation of the Incidence Rate Using Data from a Prevalent Cohort Study with Follow-Up—**❖ Vittorio Addona, Macalester College; Masoud Asgharian, McGill University; David Wolfson, McGill University
- 8:50 a.m. **Semiparametric Analysis for Recurrent Event Data with Time-Dependent Covariates and Informative Censoring—**❖ Chiung-Yu Huang, National Institutes of Health; Jing Qin, National Institutes of Health; Mei-Cheng Wang, The Johns Hopkins University
- 9:05 a.m. **Nonparametric Estimation in a Markov 'Illness-Death' Process from Interval-Censored Observations with Missing Intermediate Transition Status—**Halina Frydman, New York University; ❖ Michael Szarek, Pfizer Inc.
- 9:20 a.m. **Inference for Three-State Progressive Disease Models with Common Periodic Observations—**❖ Beth Ann Griffin, RAND Corporation; Stephen Lagakos, Harvard School of Public Health
- 9:35 a.m. **Semiparametric Estimation with Recurrent Event Data Under an Informative Monitoring Period—**❖ Akim Adekpedjou, University of South Carolina; Edsel A. Pena, University of South Carolina
- 9:50 a.m. **Comparing in vivo Tumor Growth with Response-Dependent Right-Censoring—**❖ Wenquan Wang, The University of Alabama at Birmingham
- 10:05 a.m. **Evaluation of a Binary Response Variable as a Surrogate for Survival: A Gynecologic Oncology Group Study—**❖ Virginia Filiaci, GOG Statistical and Data Center; Randolph L. Carter, University at Buffalo-SUNY

244 Bayesian Statistical Methodology and Its Application to Biometrics—Contributed

Biometrics Section

Chair(s): Meehyung Cho, sanofi-aventis

- 8:35 a.m. **A Bayesian Approach to a Logistic Regression Model with Incomplete Information**—❖ Taeryon Choi, University of Maryland, Baltimore County; Mark J. Schervish, Carnegie Mellon University; Ketra Schmitt, Battelle Memorial Institute; Mitchell Small, Carnegie Mellon University
- 8:50 a.m. **A Bayesian Method for the Detection of Epistasis in Quantitative Trait Loci**—❖ Edward Boone, Virginia Commonwealth University
- 9:05 a.m. **Group Sequential Designs and Analyses for Clinical Trials Based on a Utility Setting**—❖ Yi Cheng, Indiana University South Bend
- 9:20 a.m. **Statistical Model for Detecting Multiple eQTLs**—❖ Wei Zhang, Harvard University; Jun S. Liu, Harvard University; Jun Zhu, Rosetta Inpharmatics, LLC
- 9:35 a.m. **Empirical Bayes Estimators in Stratified Random Sampling/Ranked Set Sampling**—❖ Tetsuji Ohyama, Kurume University; Jimmy A. Doi, California Polytechnic State University; Takashi Yanagawa, Kurume University
- 9:50 a.m. **Linear Model Selection Based on Estimation of Model Bias**—❖ Andrew Neath, Southern Illinois University Edwardsville; Letitia Downen, Southern Illinois University Edwardsville; Joseph Cavanaugh, The University of Iowa
- 10:05 a.m. **Empirical Bayes Methods for Controlling the False Discovery Rate with Dependent Data**—❖ Weihua Tang, Bristol-Myers Squibb Company; Cun-Hui Zhang, Rutgers University

245 Sequence Analysis and Genetic Association Studies—Contributed

Biometrics Section

Chair(s): Michele Shaffer, The Pennsylvania State University

- 8:35 a.m. **Mining ChIP Data for Transcription Factor Binding Sites by the Addition of Background Sequences**—❖ Yu Liang, National Institute of Environmental Health Sciences; Leping Li, National Institute of Environmental Health Sciences

- CC-259** 8:50 a.m. **Complex Demodulation Applied to bZIP and bHLH-PAS Protein Domains**—❖ Charles Smith, North Carolina State University; Zhi Wang, North Carolina State University; William R. Atchley, North Carolina State University
- 9:05 a.m. **A Probabilistic Approach for Phylogenetic Sequence Selection**—❖ Michelle Lacey, Tulane University
- 9:20 a.m. **Variable Selection in Logistic Models for Testing SNP-SNP Interactions**—❖ Huiyi Lin, The University of Alabama at Birmingham; Renee Desmond, The University of Alabama at Birmingham; Yung-Hsin Liu, Pharmaceutical Product Development Inc.; Seng-jaw Soong, The University of Alabama at Birmingham
- 9:35 a.m. **Likelihood-Based Procedures for Disease Gene Localization with General Pedigree Data**—❖ Shuyan Wan, Merck & Co., Inc.; Shili Lin, The Ohio State University
- 9:50 a.m. **Statistical Methods for Genetic Association Studies Based on Haplotype Sharing**—❖ Glen Satten, Centers for Disease Control and Prevention; Andrew Allen, Duke University
- 10:05 a.m. **Constructing Gene Association Network for Rheumatoid Arthritis Using the Backward Genotype-Trait Association (BGTA) Algorithm**—❖ Yuejing Ding, Columbia University; Tian Zheng, Columbia University; Iuliana Ionita-Laza, Harvard University; Lei Cong, Columbia University; Shaw-Hwa Lo, Columbia University

246 ● ⊛ Issues with Survival Data in Clinical Trials—Contributed

CC-255 C

Biopharmaceutical Section, Biometrics Section

Chair(s): Larry Thorderson, ICON Clinical Research

- 8:35 a.m. **Comparison of Methods for Handling Early Dropouts in Analysis of Event Rates**—❖ Yuting Zhang, Amgen Inc.
- 8:50 a.m. **Conditional Power for Stratified Logrank Tests**—❖ Chung-Kuei Chang, Cephalon, Inc.; Lothar Tremmel, Cephalon, Inc.
- 9:05 a.m. **Optimal Cost-Effective Designs of Proof of Concept Trials**—❖ Cong Chen, Merck & Co., Inc.
- 9:20 a.m. **Nonparametric Confidence Intervals for Survival Probabilities**—❖ Kun Chen, Bristol-Myers Squibb Company

- 9:35 a.m. **Generalized Estimating Equations for Clustered Survival Data**—◆ Xiaohong Zhang, Amgen Inc.; Kenneth Koehler, Iowa State University; Terry M. Therneau, Mayo Clinic
- 9:50 a.m. **Modeling Multicenter Survival Data: Simulation Results**—◆ Daozhi Zhang, Daiichi Sankyo Pharma Development
- 10:05 a.m. **A Note on Discrete-Time Survival Model with Application to Vertebral Fracture**—◆ Hongwei Wang, Merck & Co., Inc.; Weili He, Merck & Co., Inc.; Arvind K. Shah, Merck & Co., Inc.

247

CC-155 B

⬢ Volatility and Risk—Contributed

Business and Economics Statistics Section

Chair(s): Roger Berger, Arizona State University

- 8:35 a.m. **Optimal House Tenure and Portfolio Choice with Housing as a Hedging Asset**—◆ Yu Zhang, Columbia Business School
- 8:50 a.m. **Comparing Portfolio Credit Risk Methods on Diversification Effect**—◆ Ming-Chin Hung, Soochow University; Yi-Ping Chang, Soochow University; Huimei Liu, National Chengchi University
- 9:05 a.m. **Volatility in Output Growth: A Wavelet Analysis**—◆ David J. Doorn, The University of Minnesota Duluth
- 9:20 a.m. **An Approximation Scheme for Option Pricing for Stochastic Volatility Models**—◆ Jungyeon Yoon, The University of North Carolina at Chapel Hill; Chuanshu Ji, The University of North Carolina at Chapel Hill
- 9:35 a.m. **Empirical Analysis of Volatility Dynamics in High-Frequency Returns with a Time-Varying Component Model**—◆ Ka Sing Man, Western Illinois University; Chunchi Wu, Singapore Management School
- 9:50 a.m. **A Multivariate Stochastic Volatility Model and Its Inference**—◆ Peng Liu, North Carolina State University; Peter Bloomfield, North Carolina State University
- 10:05 a.m. **High-Dimensional Volatility Models**—◆ David S. Matteson, The University of Chicago; Ruey S. Tsay, The University of Chicago Graduate School of Business

248

CC-250 C

⬢ Semiparametric Models and Biostatistics—Contributed

IMS, SSC, Biometrics Section

Chair(s): Jonathan Gelfond, The University of North Carolina at Chapel Hill

- 8:35 a.m. **Maximum Average-Power Tests**—◆ Chih-Rung Chen, National Chiao Tung University
- 8:50 a.m. **Estimating the Error Distribution Function in Semiparametric Regression**—◆ Ursula Mueller-Harknett, Texas A&M University
- 9:05 a.m. **Inference for the Cox Regression Models with Time-Dependent Coefficients via Empirical Likelihood**—◆ Yanqing Sun, The University of North Carolina at Charlotte; Rajeshwari Sundaram, National Institute of Child Health and Human Development; Yichuan Zhao, Georgia State University
- 9:20 a.m. **Effects of Rounding of Conditional Frequencies on Odds Ratio**—◆ Juyoun Lee, The Pennsylvania State University; Aleksandra Slavkovic, The Pennsylvania State University
- 9:35 a.m. **Use of Marginal Structural Models To Estimate the Effect of Epoetin on Survival of Dialysis Patients**—◆ Yi Zhang, Medical Technology and Practice Patterns Institute; Dennis Cotter, Medical Technology and Practice Patterns Institute; Mae Thamer, Medical Technology and Practice Patterns Institute; James Kaufman, Veterans Affairs Boston Healthcare Systems/ Boston University School of Medicine; Miguel A. Hernan, Harvard School of Public Health
- 9:50 a.m. **Determining the Cutoff Points for a Continuous Biomarker When Its Interaction with Study Treatment Is of Interest with Time-to-Event Outcomes**—◆ Keyue Ding, Queen's University
- 10:05 a.m. **Robust Methods for Estimation of State Occupancy Probabilities with Interval-Censored Multistate Data**—◆ David Tolusso, University of Waterloo; Richard J. Cook, University of Waterloo

249

CC-251 D

⬢ Nonparametric Methods for Machine Learning and High-Dimensional Data—Contributed

Section on Nonparametric Statistics

Chair(s): Rebecca Nugent, Carnegie Mellon University

- 8:35 a.m. **A Method for Dimension Reduction in Classification with Functional Data**—◆ Santiago Velilla, Universidad Carlos III de Madrid

- 8:50 a.m. **Exact Bagging of k-Nearest-Neighbor Learners—**
❖ Brian Steele, University of Montana
- 9:05 a.m. **Consistency of Lasso Selection in High-Dimensional Approximating Models—**Florentina Bunea, Florida State University; ❖ Shuva Gupta, Florida State University
- 9:20 a.m. **Statistical Approaches to Mining Multivariate Datastreams—**❖ Eric Vance, Duke University
- 9:35 a.m. **Modeling Computer Experiments with Multiple Responses—**❖ Zhe Zhang, The Pennsylvania State University; Runze Li, The Pennsylvania State University; Agus Sudjianto, Bank of America
- 9:50 a.m. **Nonparametric Tests and Finite Approximations for Balanced and Unbalanced Multivariate Data, with Applications—**❖ Arne Bathke, University of Kentucky; Solomon W. Harrar, University of Montana
- 10:05 a.m. **Methodological Aspect of Interpretation of Principal Components—**❖ Lev Sverdlov

250**CC-155 A****● ⊛ Computer Experiments and Network Traffic Models—Contributed**

Section on Physical and Engineering Sciences

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

- 8:35 a.m. **Simultaneous Calibration and Tuning of Computer Experiments—**❖ Gang Han, The Ohio State University; Thomas Santner, The Ohio State University
- 8:50 a.m. **Estimating Percentiles in Computer Experiments—**
❖ Soma Roy, The Ohio State University; William Notz, The Ohio State University
- 9:05 a.m. **Blind Kriging—**❖ Roshan Vengazhiyil, Georgia Institute of Technology; Ying Hung, Georgia Institute of Technology; Agus Sudjianto, Bank of America
- 9:20 a.m. **Optimal Design of Network Traffic Measurement Scheme—**❖ Harsh Singhal, University of Michigan; George Michailidis, The University of Michigan
- 9:35 a.m. **Sample-Based Estimation of Internet Traffic Flow Characteristics—**❖ Lili Yang, The University of Michigan; George Michailidis, The University of Michigan

- 9:50 a.m. **Propagating SLAs Statistics in the IT Service Provider Environment—**❖ Larisa Shwartz, IBM T.J. Watson Research Center; Genady Grabarnik, IBM T.J. Watson Research Center
- 10:05 a.m. **Estimating Traffic Volume over a Large Transportation Network from Noisy Data—**
❖ Jaimyoung Kwon, California State University, East Bay; Karl Petty, Berkeley Transportation Systems, Inc.

251**CC-251 C****● Machine Learning—Contributed**

Section on Statistical Computing, Section on Statistical Graphics, Section on Physical and Engineering Sciences, Section on Quality and Productivity

Chair(s): Simon Sheather, Texas A&M University

- 8:35 a.m. **Semisupervised Learning from Dissimilarity Data—**❖ Michael Trosset, Indiana University; Carey E. Priebe, The Johns Hopkins University
- 8:50 a.m. **Algorithms for Support Vector Machines—**
❖ Denise Reeves, George Mason University
- 9:05 a.m. **Random Forests for Feature Selection: To Be Handled with Caution—**❖ Carolin Strobl, LMU Munich
- 9:20 a.m. **Feature Selection for Large Data—**❖ Peng Liu, Case Western Reserve University; Jiayang Sun, Case Western Reserve University
- 9:35 a.m. **Asymptotic Mean Squared Prediction Error of L2Boosting Estimator Under Mis-specified Models—**❖ Tzu-Chang Cheng, University of Illinois at Urbana-Champaign; Ching-Kang Ing, Academia Sinica
- 9:50 a.m. **On Efficient Supervised Learning of Multivariate t Mixture Models with Missing Information—**
❖ Tsung-I Lin, National Chung Hsing University; Hsiu-J Ho, National Chung Hsing University; Pao-S Shen, Tunghai University
- 10:05 a.m. **Conditional Confidence Intervals for Classification Error Rate—**❖ Hie-Choon Chung, Gwangju University; Chien-Pai Han, University of Texas at Arlington

252

CC-355 D

● Variance Estimation—Advanced Applications—Contributed

Section on Survey Research Methods

Chair(s): Karen Messer, University of California, San Diego

- 8:35 a.m. **Quasi-Monte Carlo Methods for Variance Estimation**—❖ Stanislav Kolenikov, University of Missouri-Columbia
- 8:50 a.m. **Estimating the Distribution of Distances for a Large-Scale Complex Survey**—❖ Jianqiang Wang, Iowa State University; Jean Opsomer, Iowa State University
- 9:05 a.m. **Variance Estimation for Calibration with Estimated Control Totals**—❖ Jill Dever, University of Maryland; Richard Valliant, University of Maryland
- 9:20 a.m. **Variance Estimation After Nearest-Neighbor Imputation with Application to 2000 Census Long Form Sample**—❖ Jae-kwang Kim, Yonsei University; Wayne Fuller, Iowa State University
- 9:35 a.m. **On Variance Estimation Under Auxiliary Value Imputation in Sample Surveys**—❖ David Haziza, University of Montréal; Jean-François Beaumont, Statistics Canada; Cynthia Bocci, Statistics Canada
- 9:50 a.m. **The Effect of Stochastic Population Controls on the Precision of Radio Listening Estimates**—❖ Richard Griffiths, Arbitron Inc.
- 10:05 a.m. **Floor Discussion**

253

CC-355 A

● Improved Methods for Survey Contact and Incentives—Contributed

Section on Survey Research Methods

Chair(s): Christopher Johnson, Centers for Disease Control and Prevention

- 8:35 a.m. **Using Linear Programming Techniques for Balancing Automatic Case Assignments in Field Surveys**—❖ Edward English, NORC at the University of Chicago; Steven Pedlow, NORC at the University of Chicago
- 8:50 a.m. **First Impression: An Advance Contact Experiment to Locate and Engage Potential Respondents**—❖ Michael E. White, U.S. Census Bureau; Megan Henly, U.S. Census Bureau; Amy B. Herron, U.S. Census Bureau; Andrew Zukerberg, U.S. Census Bureau

- 9:05 a.m. **The Impact of Incentives on Survey Participation and Reports of Intimate Partner and Sexual Violence**—❖ Lisa Carley-Baxter, RTI International; Michele Lynberg, Centers for Disease Control and Prevention; Susan Twiddy, RTI International
- 9:20 a.m. **Money Can Buy Me Love: Experiments To Increase Response Rates Using Monetary Incentives**—❖ Andrew Zukerberg, U.S. Census Bureau; Megan Henly, U.S. Census Bureau; David Hall, U.S. Census Bureau
- 9:35 a.m. **Floor Discussion**

254

CC-251 B

Teaching Statistics in the Health Sciences—Contributed

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

Chair(s): Patrick Arbogast, Vanderbilt University

- 8:35 a.m. **The Job Outlook for Biostatistics Graduates**—❖ Stephen W. Looney, Medical College of Georgia; Joseph L. Hagan, Louisiana State University Health Sciences Center
- 8:50 a.m. **Developing a Biostatistical Collaboration Course in a Health Research Methodology Program**—❖ Lehana Thabane, McMaster University; Stephen Walter, McMaster University; Steven E. Hanna, McMaster University; Charlie Goldsmith, McMaster University; Eleanor Pullenayegum, McMaster University
- 9:05 a.m. **The Effect of Effect Size on Teaching, Collaboration, and Publishing**—❖ Linda S. Hynan, The University of Texas Southwestern Medical Center at Dallas; Alan Elliott, The University of Texas Southwestern Medical Center at Dallas
- 9:20 a.m. **Use of Interesting Examples from Medicine and Biology**—❖ Harry Norton, Carolinas Medical Center
- 9:35 a.m. **WMWodds: A Simple and Direct Effect-Size Parameter for the Wilcoxon-Mann-Whitney Two-Sample Test**—❖ Ralph G. O'Brien, The Cleveland Clinic; John Castelleo, SAS Institute Inc.
- 9:50 a.m. **Calibrated Peer Review (CPR) as a Tool To Teach Interpretation of Linear Regression Coefficients: Development of the CPR Module and Examination of Students' Results**—❖ Felicity B. Enders, Mayo Clinic; Sarah Stoner, Mayo Clinic; Verna Hoverman, Mayo Clinic

- 10:05 a.m. **A SAS Macro Implementation of a Multiple Comparison Post Hoc Test**—❖ Alan Elliott, The University of Texas Southwestern Medical Center at Dallas; Linda S. Hynan, The University of Texas Southwestern Medical Center at Dallas

255**CC-254 A**

● ⊛ **Estimating Social Statistics: Hurricanes, Murders, and Other Applications—Contributed**

Social Statistics Section

Chair(s): Daniel Cork, Committee on National Statistics

- 8:35 a.m. **Assessing Katrina's Impact: Report of a Study on the Mississippi Gulf Coast**—❖ David A. Swanson, University of Mississippi; Mark Van Boening, University of Mississippi; Richard Forgette, University of Mississippi
- 8:50 a.m. **Factors That Facilitated and Inhibited Job-Holding Among Female AFDC/TANF Recipients in 1996**—❖ Denton Vaughan, Consultant
- 9:05 a.m. **Under-Reporting of Means-Tested Transfer Benefits in the CPS**—❖ Laura Wheaton, The Urban Institute
- 9:20 a.m. **Dial M for Missing Murder Data**—❖ James A. Fox, Northeastern University; Marc L. Swatt, Northeastern University
- 9:35 a.m. **Measurement and Evaluation of Ancestry: Differences Between Specific and Generalized Responses**—❖ Frank Hobbs, U.S. Census Bureau; Angela Brittingham, U.S. Census Bureau
- 9:50 a.m. **Measuring Religious Change Among Michigan Southern Baptists**—❖ William Livingston, Baker College
- 10:05 a.m. **Floor Discussion**

Special Presentation 10:30 a.m.–12:20 p.m.

256**CC-255 B**

ASA College Stat Bowl I—Other

ASA, IMS, ENAR, WNAR, SSC

Organizer(s): Stephanie Cano, University of Texas at San Antonio; Michael T. Anderson, University of Texas at San Antonio

Chair(s): Michael T. Anderson, University of Texas at San Antonio

- Game 1**—❖ Ellen Breazel, University of Georgia; ❖ Ann Lazar, University of Colorado at Denver and Health Sciences Center; ❖ Chris Rigdon,

Arizona State University; ❖ Tanya Sikdar, University of Georgia

Game 2—❖ Ming-Hung (Jason) Kao, University of Georgia; ❖ Amanda-Sue King, Wright State University; ❖ Peng Liu, Case Western Reserve University; ❖ Balaji Raman, University of Connecticut

Game 3—❖ Sourish Das, University of Connecticut; ❖ Yiyi (Richard) Fan, Case Western Reserve University; ❖ Qin Wang, University of Georgia; ❖ Andrejus Parfionovas, Utah State University

Game 4—❖ Jien Chen, University of Georgia; ❖ Xiaosong Li, Case Western Reserve University; ❖ Sourish Saha, University of Florida; ❖ Erin Tewksbury, Wright State University

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

257**CC-251 C**

⊛ **Recent Advancements in Nonparametric Methods for Regression Model Selection and Model Checking—Invited**

Section on Nonparametric Statistics, Biometrics Section

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

Chair(s): Arne Bathke, University of Kentucky

- 10:35 a.m. **Recent Developments in Noise-Addition Methods for Model Selection**—❖ Dennis Boos, North Carolina State University; Leonard A. Stefanski, North Carolina State University
- 11:00 a.m. **Frequentist-Bayes Lack-of-Fit Tests Based on a Laplace Approximation**—❖ Jeffrey Hart, Texas A&M University
- 11:25 a.m. **A Goodness-of-Fit Test for Parametric and Semiparametric Models in Multiresponse Regression**—❖ Ingrid Van Keilegom, Université catholique de Louvain; Song Xi Chen, Iowa State University
- 11:50 a.m. **Robust Tests in Regression Models with Omnibus Alternatives and Bounded Influence**—❖ Lan Wang, The University of Minnesota
- 12:15 p.m. **Floor Discussion**

258

CC-255 F

● ⊛ Nonparametric Bayesian Inference for Challenging Biomedical Problems—Invited

International Society of Bayesian Analysis, Section on Bayesian Statistical Science, ENAR, Biometrics Section, Section on Nonparametric Statistics

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

Chair(s): Athanasios Kottas, University of California, Santa Cruz

10:35 a.m. **Bayesian Semiparametric Factor Modeling in Large P Problems**—✦ Mike West, Duke University

11:05 a.m. **The Matrix Stick-Breaking Process: Flexible Bayes Meta-Analysis**—✦ David B. Dunson, National Institute of Environmental Health Sciences

11:35 a.m. **Bayesian Nonproportional Hazards Survival Analysis**—✦ Wesley Johnson, University of California, Irvine

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

259

CC-355 B

● The National Children's Study: The Challenges and Promises of a Follow-Up Study of a Randomly Selected Cohort of 100,000 Pre- and Post-Conception Women and Their Offspring Through 21 Years of Life—Invited

ENAR, Biometrics Section, Section on Statistics and the Environment, Section on Statistics in Epidemiology, Section on Survey Research Methods, Section on Health Policy Statistics, Social Statistics Section, Section on Teaching Statistics in the Health Sciences

Organizer(s): Jonas H. Ellenberg, University of Pennsylvania

Chair(s): Louise Ryan, Harvard School of Public Health/Dana-Farber Cancer Institute

10:35 a.m. **The National Children's Study (NCS): Background, Rationale, and Scope**—✦ Peter C. Scheidt, National Institute of Child Health and Human Development

10:55 a.m. **Methods for Sampling Households To Identify 100,000 Births**—✦ Jill M. Montaquila, Westat; J. Michael Brick, Westat; Lester Curtin, Centers for Disease Control and Prevention

11:15 a.m. **Adaptive Tuning of Field Performance in the National Children's Study: Protection of the Inferential Base**—✦ Jonas H. Ellenberg, University of Pennsylvania

11:35 a.m. **Issues in the Measurement and Assessment of Environmental Exposures for a Large Prospective Cohort Study**—✦ James Quackenboss, U.S. Environmental Protection Agency; Warren Galke, National Institute of Child Health and

Human Development; Susan Viet, Westat; David Marker, Westat; Steven Bodesky, LFR, Inc.

11:55 a.m. **Disc: Roderick J. Little, University of Michigan**

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

260

CC-259

● ⊛ Design of Experiment for Categorical Data—Invited

Biometrics Section, ENAR, Biopharmaceutical Section, General Methodology, Section on Physical and Engineering Sciences, Section on Quality and Productivity, WNAR

Organizer(s): Min Yang, University of Missouri-Columbia

Chair(s): Min Yang, University of Missouri-Columbia

10:35 a.m. **A Response-Driven Design: The Randomized Reinforcement Urn**—✦ Nancy Flournoy, University of Missouri-Columbia

11:00 a.m. **Optimal Designs for Dose-Finding Studies**—✦ Holger Dette, Ruhr-Universitaet Bochum

11:25 a.m. **Multicenter Clinical Trials with Binary Outcomes and Random Effects for Centers: Sample Size Determination**—✦ Kathryn Chaloner, The University of Iowa

11:50 a.m. **Optimal Designs of Clinical Studies for Multivariate Probit Model**—✦ Valeri V. Fedorov, GlaxoSmithKline

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

261

CC-254 B

⊛ Asymptotic Decision Theory and Its Applications—Invited

IMS, Section on Nonparametric Statistics

Organizer(s): Harrison Zhou, Yale University

Chair(s): Harrison Zhou, Yale University

10:35 a.m. **Adaptive Nonparametric Density Estimation via the Root-Unroot Transform and Wavelet Block Thresholding**—✦ Lawrence D. Brown, University of Pennsylvania

11:00 a.m. **Asymptotic Equivalence for Nonparametric Regression Experiments with Random Design**—✦ Andrew Carter, University of California, Santa Barbara

11:25 a.m. **Estimating Convex Functions**—✦ Mark Low, University of Pennsylvania

11:50 a.m. **Sufficiency and the Preservation of Fisher Information**—✦ David Pollard, Yale University

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

262

● ⊛ Seasonal Time Series—Invited

Business and Economics Statistics Section

*Organizer(s): Stuart Scott, Bureau of Labor Statistics**Chair(s): Ed Melnick, New York University*

- 10:35 a.m. **Recasting X11 Seasonal Adjustment Filters into Smoothers**—❖ Tucker S. McElroy, U.S. Census Bureau; Agustin Maravall, Bank of Spain
- 11:00 a.m. **New Models for Seasonal Time Series and Seasonal Adjustment**—❖ David Findley, U.S. Census Bureau; Brian Monsell, U.S. Census Bureau; John Aston, Academia Sinica; Jyh-Ying Peng, Academia Sinica
- 11:25 a.m. **Quantifying and Measuring Revisions in Time-Series Estimates**—❖ Duncan Elliot, Office for National Statistics; Craig H. McLaren, Office for National Statistics; Xichaun (Mark) Zhang, Australian Bureau of Statistics
- 11:50 a.m. **Empirical Evaluation of X-11 and Model-Based Seasonal Adjustment Methods**—❖ Stuart Scott, Bureau of Labor Statistics; Richard Tiller, Bureau of Labor Statistics; Daniel Chow, Bureau of Labor Statistics
- 12:15 p.m. **Floor Discussion**

263

● ⊛ Statistical Analysis and Forecast of Space-Time Wind Power Data—Invited

IMS, Section on Statistics and the Environment

*Organizer(s): Marc Genton, University of Geneva**Chair(s): Marc Genton, University of Geneva*

- 10:35 a.m. **Calibrated Probabilistic Forecasting at the Stateline Wind Energy Center: The Regime-Switching Space-Time (RST) Method**—❖ Kristin A. Larson, 3TIER; Tilmann Gneiting, University of Washington
- 11:00 a.m. **Nonparametric Assessment of Properties of Space-Time Covariance Functions Associated with Wind Speed Data**—❖ Bo Li, National Center for Atmospheric Research; Marc Genton, University of Geneva; Michael Sherman, Texas A&M University
- 11:25 a.m. **Models for Short-Term Wind Speed Prediction**—❖ Amanda S. Hering, Texas A&M University; Marc Genton, University of Geneva
- 11:50 a.m. **Disc: Michael Stein, The University of Chicago**
- 12:10 p.m. **Floor Discussion**

CC-155 A

264

● ⊛ Confronting the Realities of Massive Imputation in Complex Surveys—Invited

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

*Organizer(s): Alan M. Zaslavsky, Harvard University; Yulei He, Harvard Medical School**Chair(s): Thomas Belin, University of California, Los Angeles*

- 10:35 a.m. **Preservation of Skip Patterns and Covariance Structure through Semiparametric Whole-Questionnaire Imputation**—❖ David R. Judkins, Westat; Thomas Krenzke, Westat; Zizhong Fan, MedImmune, Inc.; Andrea R. Piesse, Westat
- 11:00 a.m. **Imputation in a Multimode Multi-instrument Study of Cancer Care**—❖ Yulei He, Harvard Medical School; Alan M. Zaslavsky, Harvard University
- 11:25 a.m. **Multiple Imputation Analysis of Association Between Cardiovascular Disease Risk Factors and Environmental Exposures**—❖ Trivellore E. Raghunathan, University of Michigan; Wei Chen, Karmanos Cancer Institute
- 11:50 a.m. **Disc: Michael D. Larsen, Iowa State University**
- 12:10 p.m. **Floor Discussion**

265

● ⊛ Causal Inference: Past, Present, and Future—Invited

Council of Chapters, Biometrics Section, General Methodology, WNAR

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

- 10:35 a.m. **Statistics and Causal Inference: Past and Present**—❖ Paul Holland, Educational Testing Services
- 11:00 a.m. **The Mathematics of Causal Inference in Statistics**—❖ Judea Pearl, University of California, Los Angeles
- 11:25 a.m. **Causal Inference as a Missing Data Problem: Past, Present, and Future**—❖ Donald B. Rubin, Harvard University
- 11:50 a.m. **Disc: Mark J. van der Laan, University of California, Berkeley**
- 12:10 p.m. **Floor Discussion**

CC-Ballroom B

Tuesday

266

CC-255 D

● ☆ Recent Developments of Statistics in Forest, Wildlife, Fisheries, and Ecological Research—Invited

WNAR, ENAR, Biometrics Section, Section on Statistical Consulting, Section on Statistics and the Environment

Organizer(s): Dongchu Sun, University of Missouri-Columbia

Chair(s): Steve Sheriff, Missouri Department of Conservation

- 10:35 a.m. **Searching for Ecological-Environmental Relationships**—Eric P. Smith, Virginia Polytechnic Institute and State University; ❖ Samantha Bates Prins, James Madison University
- 11:00 a.m. **Statistical and Nonstatistical Issues in Designing Large-Scale Monitoring Efforts for the Northern Spotted Owl**—❖ James A. Baldwin, USDA Forest Service; Joseph Lint, USDI Bureau of Land Management; Martin G. Raphael, USDA Forest Service; Eric Forsman, USDA Forest Service; John A. Laurence, USDA Forest Service; Robert Anthony, U.S. Geological Survey
- 11:25 a.m. **Bayesian Spatial Modeling of Vegetation Coverage Data in the Missouri Ozark Forest Ecosystem Project**—❖ Zhuoqiong (Chong) He, University of Missouri-Columbia; Xiaoqian Sun, Clemson University
- 11:50 a.m. **Capture-Recapture Models: Uses of the Robust Design**—❖ Ken Pollock, North Carolina State University
- 12:15 p.m. **Floor Discussion**

267

CC-251 B

Computationally Intensive Methods—Invited

Section on Statistical Computing, ENAR, Section on Nonparametric Statistics

Organizer(s): Yasmin H. Said, George Mason University

Chair(s): Edward Wegman, George Mason University

- 10:35 a.m. **Exploratory Statistical Software**—❖ Antony Unwin, University of Augsburg
- 11:05 a.m. **Reducing the Variability in Least Squares Cross-Validation Bandwidths**—Jeffrey Hart, Texas A&M University; ❖ Simon Sheather, Texas A&M University
- 11:35 a.m. **K Models Clustering**—❖ James E. Gentle, George Mason University; Li Li, George Mason University
- 12:05 p.m. **Floor Discussion**

Invited Panels 10:30 a.m.–12:20 p.m.

268

CC-254 C

● ☆ Influencing State-by-State Curriculum Standards in Statistics for K–12 Education—Invited

ASA NCTM Joint Committee on Curriculum in Stats and Probability, Section on Statistical Education, Section on Teaching Statistics in the Health Sciences

Organizer(s): Jerry Moreno, John Carroll University

Chair(s): Jerry Moreno, John Carroll University

- Panelists:** ❖ Gail Burrill, Michigan State University
❖ Christine Franklin, University of Georgia
❖ Katherine Halvorsen, Smith College
❖ Cathy Seeley, University of Texas at Austin

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

269

CC-251 E

● ☆ Overarching Issues in Risk Analysis—Invited

Section on Risk Analysis, Section on Statisticians in Defense and National Security

Organizer(s): Duane Steffey, Exponent, Inc.

Chair(s): Alan Karr, National Institute of Statistical Sciences

- Panelists:** ❖ Duane Steffey, Exponent, Inc.
❖ Bruce Craig, Purdue University
❖ Robert Obenchain, Eli Lilly and Company
❖ Walter W. Piegorsch, The University of Arizona

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

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

270

CC-355 C

● ☆ Phase II/III Clinical Trials: Combine or Not To Combine—Topic-Contributed

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

Organizer(s): James Hung, U.S. Food and Drug Administration

Chair(s): James Hung, U.S. Food and Drug Administration

- 10:35 a.m. **Multiplicity in Adaptive Designs**—❖ Willi Maurer, Novartis Pharmaceuticals AG

- 10:55 a.m. **How Much Evidence Is Enough?**—❖ Kuang-Kuo Lan, Johnson & Johnson PRD
- 11:15 a.m. **Adaptation of Adaptive Design in Japan**—
❖ Masahiro Takeuchi, Kitasato University;
Hajime Uno, Kitasato University; Fumiaki Takahashi, Kitasato University
- 11:35 a.m. **Stagewise Planning for Clinical Trials from Phase II to Phase III**—❖ Sue-Jane Wang, U.S. Food and Drug Administration
- 11:55 a.m. Disc: Ralph B. D'Agostino, Sr., Boston University
- 12:15 p.m. **Floor Discussion**

271 CC-155 B

● ⊛ Using Computer Models for Ecological, Environmental, and Biological Applications: A SAMSI Program—Topic-Contributed

Section on Bayesian Statistical Science, ENAR

Organizer(s): Susie Bayarri, University of Valencia

Chair(s): Susie Bayarri, University of Valencia

- 10:35 a.m. **How Far Can a Physicist Travel Along the Bayesian Way: Probability, Uncertainty, and Adequacy in Climate-Like Modeling**—❖ Leonard Smith, London School of Economics
- 10:55 a.m. **Analyzing Input and Structural Uncertainty of a Hydrological Model with Stochastic Time-Dependent Parameters**—❖ Peter Reichert, Swiss Federal Institute of Aquatic Science and Technology; Johanna Mieleitner, Eawag
- 11:15 a.m. **Analysis of Seasonal Epidemiological Parameters**—❖ Ariel Cintron-Arias, Statistical and Applied Mathematical Sciences Institute/ North Carolina State University; Peter Reichert, Swiss Federal Institute of Aquatic Science and Technology; Alun Lloyd, North Carolina State University; H. T. Banks, North Carolina State University
- 11:35 a.m. **Hazard Mapping: Modeling Volcanic Avalanches**—
❖ E. Bruce Pitman, University at Buffalo-SUNY
- 11:55 a.m. **Calibration of an Air Quality Model**—❖ Serge Guillas, Georgia Institute of Technology; Lew Lefton, Georgia Institute of Technology; Yunsoo Choi, Georgia Institute of Technology; Yuhang Wang, Georgia Institute of Technology
- 12:15 p.m. **Floor Discussion**

272 CC-255 E

● ⊛ Genome-Wide Studies and Proteomics in Cancer—Topic-Contributed

Biometrics Section, ENAR, WNAR

Organizer(s): Terry Hyslop, Thomas Jefferson University

Chair(s): Inna Chervoneva, Thomas Jefferson University

- 10:35 a.m. **Statistical Validation of Breast Cancer Subtypes**—
❖ Amy Kapp, Stanford University; Robert Tibshirani, Stanford University
- 10:55 a.m. **Analytical Pipeline for 2D Gels**—❖ Francoise Seillier-Moiseiwitsch, Georgetown University Medical Center
- 11:15 a.m. **Two-Stage Designs for Genome-Wide Association Studies in Cancer**—❖ Abhijit Dasgupta, Thomas Jefferson University
- 11:35 a.m. **Effect of the Number of Top Genes on Survival Analysis in Microarray Data**—❖ Dung-Tsa Chen, Moffitt Cancer Center; Michael Schell, Moffitt Cancer Center; Steven Eschrich, Moffitt Cancer Center; Alan Cantor, Moffitt Cancer Center; Timothy Yeatman, Moffitt Cancer Center
- 11:55 a.m. Disc: Sin-Ho Jung, Duke University
- 12:15 p.m. **Floor Discussion**

273 CC-355 D

● ⊛ Adaptive Medical Device Clinical Trials—Topic-Contributed

Biopharmaceutical Section, ENAR

Organizer(s): Lilly Yue, U.S. Food and Drug Administration

Chair(s): Laura Thompson, U.S. Food and Drug Administration

- 10:35 a.m. **Comparison of Two Adaptive Randomization Methods in Multicenter Clinical Trials**—❖ Lei Peng, Abbott Vascular
- 10:55 a.m. **Data Analysis in a Medical Device Trial When Planned Randomized Enrollment Is Too Slow**—❖ Yonghong Gao, U.S. Food and Drug Administration; Gerry Gray, U.S. Food and Drug Administration
- 11:15 a.m. **Statistical Analysis for Two-Stage Adaptive Design with Different Study Endpoints**—❖ Shein-Chung Chow, Duke University; Siu-Keung Tse, Hong Kong City University
- 11:35 a.m. **One Adaptive Design and Its Application to Medical Device PMA Study**—❖ Xiaolong Luo, Johnson & Johnson PRD; David Snead, Cordis, a Johnson & Johnson Company; Dennis Donohoe, Cordis, a Johnson & Johnson Company

11:55 a.m. **Flexible Designs in Clinical Trials: Case studies—**
❖Ning Li, U.S. Food and Drug Administration

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

274 CC-355 A

● ❖ Statistical Issues of a Thorough QT/QTc Study—Topic-Contributed

Biopharmaceutical Section

Organizer(s): Joanne Zhang, U.S. Food and Drug Administration

Chair(s): Scott Patterson, GlaxoSmithKline

10:35 a.m. **Effect of Baseline Measurement on the Change from Baseline in QTc Intervals—**❖Hong Tian, Johnson & Johnson PRD; Jaya Natarajan, Johnson & Johnson PRD

10:55 a.m. **QT Interval Variability and Sample Size Consideration for Thorough QT Studies—**❖Lu Zhang, Eli Lilly and Company; Alex Dmitrienko, Eli Lilly and Company

11:15 a.m. **Examination of Concentration Effect Modeling of QT Interval from a Statistical Perspective—**
❖Brian Smith, Amgen Inc.

11:35 a.m. **Statistical Issues of a Thorough QT/QTc Study—**
❖Joanne Zhang, U.S. Food and Drug Administration

11:55 a.m. **Disc: Venkat Sethuraman, Novartis Pharmaceuticals**

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

275 CC-254 A

❖ Diverse Applications of Modern Time Series—Topic-Contributed

IMS, Business and Economics Statistics Section

Organizer(s): Michael Levine, Purdue University

Chair(s): Tonglin Zhang, Purdue University

10:35 a.m. **Local Whittle Estimation of Fractional Integration for Nonlinear Processes—**❖ Xiaofeng Shao, University of Illinois; Wei Biao Wu, The University of Chicago

10:55 a.m. **Minimax Detection of Structural Change Using Large Deviations—**❖ Chuan Goh, University of Toronto

11:15 a.m. **State-Space Discrimination and Clustering of Atmospheric Time Series Data Based on Kullback Information Measures—**❖Joseph Cavanaugh, The University of Iowa; Thomas Bengtsson, Alcatel-Lucent

11:35 a.m. **Inference for Vector Processes with Long Memory via the EM Algorithm—**❖Nalini Ravishanker, University of Connecticut; Jeffrey Pai, University of Manitoba

11:55 a.m. **Spline-Backfitted Kernel Smoothing of Additive Models in Time Series—**❖Li Wang, Michigan State University; Lijian Yang, Michigan State University

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

276 CC-251 F

❖ High-Dimensional Inference and Spatial Analysis—Topic-Contributed

IMS, Section on Nonparametric Statistics

Organizer(s): Jinchi Lv, Princeton University

Chair(s): Yingying Fan, Princeton University

10:35 a.m. **Profile-Kernel Likelihood Inference with Diverging Number of Parameters—**❖ Clifford Lam, Princeton University; Jianqing Fan, Princeton University

10:55 a.m. **High-Dimension, Low Sample Size (HDLSS) Data Asymptotics—**❖ Xuxin Liu, The University of North Carolina at Chapel Hill

11:15 a.m. **Model Selection Using Hellinger Distance: Methods and Applications—**❖ Xiaofan Cao, Colorado State University; Haonan Wang, Colorado State University; Hariharan Iyer, Colorado State University

11:35 a.m. **Mixture of Thresholded, Transformed Gaussian Processes Modeling with Application to Rainfall Extremes—**❖ Jie Zhou, The University of North Carolina at Chapel Hill; Richard L. Smith, The University of North Carolina at Chapel Hill

11:55 a.m. **Sure Independence Screening for Ultra-High Dimensional Feature Space—**❖ Jinchi Lv, Princeton University; Jianqing Fan, Princeton University

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

277

CC-155 C

When Rubber Meets the Road: Bayesian Clinical Trials in Action - MDA Experience—Topic-Contributed

Section on Bayesian Statistical Science, ENAR

Organizer(s): J. Jack Lee, The University of Texas M. D. Anderson Cancer Center

Chair(s): J. Kyle Wathen, The University of Texas M. D. Anderson Cancer Center

10:35 a.m. **Bayesian Clinical Trials Designed and Conducted at the University of Texas M. D. Anderson Cancer Center (MDACC)**—Swati Biswas, University of North Texas Health Science Center; ❖ Diane D. Liu, The University of Texas M. D. Anderson Cancer Center; J. Jack Lee, The University of Texas M. D. Anderson Cancer Center; Donald A. Berry, The University of Texas M. D. Anderson Cancer Center

10:55 a.m. **Five-Arm Dose Selection Trial with Adaptive Randomization**—❖ Mark F. Munsell, The University of Texas M. D. Anderson Cancer Center; Donald A. Berry, The University of Texas M. D. Anderson Cancer Center; J. Kyle Wathen, The University of Texas M. D. Anderson Cancer Center; Marcos J. de Lima, The University of Texas M. D. Anderson Cancer Center

11:15 a.m. **An Application of Adaptive Randomization Using Hierarchical Bayes Model in a Prospective Biomarker-Based Clinical Trial**—❖ Suyu Liu, The University of Texas M. D. Anderson Cancer Center; Edward S. Kim, The University of Texas M. D. Anderson Cancer Center; Xian Zhou, Genentech, Inc.; Ignacio Wistuba, The University of Texas M. D. Anderson Cancer Center; Roy Herbst, The University of Texas M. D. Anderson Cancer Center; Jeffrey Lewis, The University of Texas M. D. Anderson Cancer Center; J. Jack Lee, The University of Texas M. D. Anderson Cancer Center

11:35 a.m. **Software and Practical Considerations for Designing and Conducting Innovative Clinical Trials at MDACC**—❖ John D. Cook, The University of Texas M. D. Anderson Cancer Center

11:55 a.m. **When Rubber Meets the Road: Bayesian Clinical Trials in Action—MDA Experience**—❖ J. Jack Lee, The University of Texas M. D. Anderson Cancer Center

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

278

CC-250 A

● ⊛ Multistate Life Table Methods in Health Policy Research—Topic-Contributed

Section on Health Policy Statistics

Organizer(s): Paula Diehr, University of Washington

Chair(s): Beth Ann Griffin, RAND Corporation

10:35 a.m. **Evaluation of Using Life Table Methods Combined with Microsimulation To Produce Estimates of Distributions**—James Lubitz, National Center for Health Statistics; ❖ Liming Cai, National Center for Health Statistics; Nathaniel Schenker, National Center for Health Statistics; Paula Diehr, University of Washington

10:55 a.m. **Age-Specific Prevalence and Years of Healthy Life in a System with Three Health States**—❖ Paula Diehr, University of Washington; David Yanez, University of Washington; Ann Derleth, University of Washington; Anne Newman, University of Pittsburgh

11:15 a.m. **Multistate Life Table Distributions for Highly Refined Subpopulations from Cross-Sectional Data: A Bayesian Alternative to Sullivan's Method**—❖ Scott Lynch, Princeton University

11:35 a.m. **An Extension of the Cohort-Component Model of Population Projection: From Multistate Life Table to Multistate Model for Households and Living Arrangement Projections**—❖ Kenneth Land, Duke University; Yi Zeng, Duke University

11:55 a.m. **Flowgraph Models for Multivariate Survival Data**—❖ C. Lillian Yau, Tulane University

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

279

CC-250 D

Marketing Research Challenging Statistics: Problems Solved and Unsolved—Topic-Contributed

Section on Statistics and Marketing

Organizer(s): Stan Lipovetsky, GfK Custom Research North America

Chair(s): Raimund K. Wildner, GfK Group

10:35 a.m. **Methodology and Challenges in Search Marketing at Business.com**—❖ Nathan Janos, Business.Com; Tom Anderson, Business.Com; Paul Dagum, Business.Com

10:55 a.m. **Optimal Designs for Choice Experiments To measure the Willingness to Pay**—❖ Bart Vermeulen, Katholieke Universiteit Leuven; Peter Goos, Universiteit Antwerpen; Martina Vandebroek, Katholieke Universiteit Leuven

- 11:15 a.m. **Statistical Issues in Optimal Product Design—**
✦ James Cochran, Louisiana Tech University
- 11:35 a.m. **A Theory of Attribution—**✦ Barry Feldman, Prism Analytics/Russell Investment
- 11:55 a.m. **Using Cooperative Game Theory as a Foundation for Marketing Research—**✦ Shon Magnan, GfK Custom Research North America; Stan Lipovetsky, GfK Custom Research North America; Ken Powaga, GfK Custom Research North America
- 12:15 p.m. **Floor Discussion**

280

CC-260

● ✦ Optimal Designs: Ideas and Applications—Topic-Contributed

WNAR, ENAR

Organizer(s): Weng-Kee Wong, University of California, Los Angeles

Chair(s): Kimmie C. Carriere, University of Alberta

- 10:35 a.m. **Optimal Allocation for Sequential Binary Response Experiments—**✦ William Rosenberger, George Mason University; Yevgen Tymofyeyev, Merck & Co., Inc.; Feifang Hu, University of Virginia
- 10:55 a.m. **Optimal Allocation in Sequential Continuous Response Experiments—**✦ Feifang Hu, University of Virginia; Hongjian Zhu, University of Virginia
- 11:15 a.m. **D-Optimal Minimax Response Surface Designs—**
✦ Julie Zhou, University of Victoria
- 11:35 a.m. **Some Results on Two-Level Nonregular Designs Constructed from Quaternary Codes—**✦ Kin Hing (Frederick) Phoa, University of California, Los Angeles; Hongquan Xu, University of California, Los Angeles
- 11:55 a.m. **Optimal Designs for Dose-Finding Experiments in Toxicity Studies—**✦ Weng-Kee Wong, University of California, Los Angeles; Holger Dette, Ruhr-Universitaet Bochum; Andrey Preplyshev, St. Petersburg State University
- 12:15 p.m. **Floor Discussion**

281

CC-355 E

● ✦ Sample Size and Effect Size Estimation—Topic-Contributed

Biopharmaceutical Section, Section on Statistical Consulting, WNAR

Chair(s): Yonggang Zhao, Wyeth

- 10:35 a.m. **Sample Size for Equivalence Trials: A Case Study from a Vaccines Lot Consistency Trial—**✦ Jitendra Ganju, Amgen Inc.

- 10:55 a.m. **Assessing the Accuracy of the WMWodds Method for the Wilcoxon-Mann-Whitney Test—**✦ John Castelloe, SAS Institute Inc.; Ralph G. O'Brien, The Cleveland Clinic
- 11:15 a.m. **Power and Sample Size Estimation for Comparing Two Means: Assessment and a New Tool—**✦ Ken Gerow, University of Wyoming
- 11:35 a.m. **Localization versus Holism in the Analysis of Neurological Imaging Data: Power Comparisons of Multivariate and Univariate Methods—**✦ Dawson Hedges, Brigham Young University; Suzanne Hendrix, Myriad Pharmaceuticals; Bruce Brown, Brigham Young University
- 11:55 a.m. **Small Sample Properties of Information-Based Monitoring—**✦ David Sawrie, The University of Alabama at Birmingham; Christopher S. Coffey, The University of Alabama at Birmingham
- 12:15 p.m. **Floor Discussion**

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

282

CC-Exhibit Hall D

● ✦ Atypical Experiments in Industry—Topic-Contributed

Section on Physical and Engineering Sciences

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

Applications and case studies

- 01 **Consumer Product Optimization Through a Mixture-of-Mixtures Experiment—**✦ William Brenneman, Procter & Gamble
- 02 **What Textbook Experiments?—**✦ Winson Taam, The Boeing Company
- 03 **Estimating the Probability of Detecting Cracks in Aerospace Structures Using Nondestructive Inspections—**
✦ Peter Hovey, University of Dayton

Experimental design

- 04 **Design on Nonconvex Regions: Optimal Experiments for Spatial Process Prediction with Applications to Industrial Processes—**✦ Matthew Pratola, Simon Fraser University
- 05 **Dynamic Structural Health Monitoring Validation—**
✦ David Banaszak, Air Force Research Laboratory
- 06 **Complex Experimental Design and Simple Data Analysis—**✦ Joseph G. Pigeon, Villanova University

- 07 J-FACT: A Factor-Covering Design Tool for Deriving Software Test Cases—❖ Joseph Morgan, SAS Institute Inc.; Bradley Jones, SAS Institute Inc.

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

283 CC-255 C ● ⬢ Recent Advances in Microarray Data Analysis III—Contributed

Biometrics Section

Chair(s): Ning Sun, Yale University

- 10:35 a.m. ROC Curve of a Generalized Odds-Rate Model—
❖ Huining Kang, University of New Mexico; Edward J. Bedrick, University of New Mexico; Susan R. Atlas, University of New Mexico; Cheryl L. Willman, University of New Mexico
- 10:50 a.m. Transformation for the Additive Effect on the Affymetrix Probe Data—❖ Fenghai Duan, University of Nebraska Medical Center
- 11:05 a.m. Variable Selection in Penalized Model-Based Clustering with Cluster-Dependent Diagonal Covariances with Application to Microarray Data—
❖ Benhuai Xie, The University of Minnesota; Wei Pan, The University of Minnesota; Xiaotong Shen, The University of Minnesota
- 11:20 a.m. FDR Control in Identification of Differentially Expressed Genes Using Mixed Linear Models When Some Variance Components May Be Zero—
❖ Cumhuri Demirkale, Iowa State University; Tapabrata Maiti, Iowa State University; Dan Nettleton, Iowa State University
- 11:35 a.m. Controlling the Average False Discovery in Large-Scale Multiple Testing—❖ Meng Du, University of Toronto; Muni S. Srivastava, University of Toronto
- 11:50 a.m. Integrated Clustering of Heterogeneous Genomic Data—❖ Jyotsna Kasturi, Johnson & Johnson PRD
- 12:05 p.m. Reconstruction of Gene Transcription Regulation Network Using a Bayesian Approach—❖ Feng Hong, University of Illinois at Urbana-Champaign

284 CC-258 ● ⬢ Design and Sampling Methods—Contributed

Biometrics Section

Chair(s): Shenghua (Kelly) Fan, California State University, East Bay

- 10:35 a.m. Optimal Designs in High-Throughput Screening—

- ❖ Xianggui Qu, Oakland University
- 10:50 a.m. Sampling Design for a Survey of Pregnant Women Following a Natural Disaster—❖ Jason Hsia, Centers for Disease Control and Prevention; Marianne E. Zotti, Centers for Disease Control and Prevention; Van T. Tong, Centers for Disease Control and Prevention
- 11:05 a.m. Adaptive Two-Stage Designs for Heterogeneous Patient Populations in Phase II Cancer Trials—
❖ Karen Messer, University of California, San Diego; Michael Donohue, University of California, San Diego
- 11:20 a.m. Inverse Probability-Weighted Estimators in the Stratified Nested Case-Control Sampling Methods—❖ Sachiko Tanaka, Tokyo University of Science; Yutaka Matsuyama, University of Tokyo; Shiro Tanaka, University of Tokyo; Seiichiro Yamamoto, National Cancer Center
- 11:35 a.m. Precision of Double Sampling with Error-Prone and Error-Free Measures and Optimum Case-Control Study Design—❖ Jun-mo Nam, National Cancer Institute
- 11:50 a.m. Early Termination of Two-Stage, Phase II, One-Sample Cancer Clinical Trials—❖ William E. Barlow, Cancer Research and Biostatistics
- 12:05 p.m. Design of Long-Term Viral Dynamic Studies in Semiparametric Mixed-Effects Models—❖ Jeong-Gun Park, Harvard School of Public Health/Frontier Science & Technology Research Foundation; Yangxin Huang, University of South Florida; Yiliang Zhu, University of South Florida

285 CC-355 F ● ⬢ The Era of Omics Data: Statistical Issues and Possible Solutions—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Jingli Song, Eli Lilly and Company

- 10:35 a.m. Proteomic Analysis by 2-D PAGE for Response to Low-Dose Ionizing Radiation and Arsenic Exposure—❖ Dan Li, University of California, Davis; Susanne R. Berglund, University of California, Davis; Alison Santana, University of California, Davis; Zelanna Goldberg, University of California, Davis; David Rocke, University of California, Davis
- 10:50 a.m. Statistical Differential Analysis of 2-D Gel Images—❖ Feng Li, University of Maryland, Baltimore County; Francoise Seillier-Moiseiwitsch, Georgetown University Medical Center

- 11:05 a.m. **Methods for Classification of NMR Metabolomic Spectroscopy**—Yuanxin Xi, University of California, Davis; David Rocke, University of California, Davis
- 11:20 a.m. **Genetic Association Analysis Using the Penalized Likelihood Approach**—Xiwu Lin, GlaxoSmithKline; Kijoung Song, GlaxoSmithKline; Daniel Parks, GlaxoSmithKline; Jie Cheng, GlaxoSmithKline; Kwan Lee, GlaxoSmithKline
- 11:35 a.m. **Microarray Experiments for Pharmacogenomics**—Youlun Rao, The Ohio State University; Yoonkyung Lee, The Ohio State University; Jane Chang, Bowling Green State University; Tao Wang, University of South Florida; Jason C. Hsu, The Ohio State University
- 11:50 a.m. **Analyzing Omics Data Using rSVD and NMF**—Li Liu, sanofi-aventis; Donghui Zhang, sanofi-aventis
- 12:05 p.m. **A New Procedure of Identifying Differentially Expressed Genes in Microarray Experiments**—Chunrong Dong, Case Western Reserve University

286 Bayesian Methods—Contributed

ENAR, Biometrics Section

Chair(s): Wade Davis, University of Missouri-Columbia

- 10:35 a.m. **Comparing Various Designs of Temporal Microarray Experiments**—Yijun Yang, Boston University; Paola Sebastiani, Boston University
- 10:50 a.m. **Bayesian Analysis of Cross-Classified Spatial Data with Autocorrelation**—Xiaolei Li, GlaxoSmithKline; Murray K. Clayton, University of Wisconsin-Madison
- 11:05 a.m. **Bayesian Sample Size Determination Under Hypothesis Tests**—Gary Cutter, The University of Alabama at Birmingham; Xiao Zhang, The University of Alabama at Birmingham
- 11:20 a.m. **Bayesian SUR Modeling of Multiple Ordinal Traits for Genome-Wide Epistatic QTL Mapping**—Samprit Banerjee, The University of Alabama at Birmingham; Nengjun Yi, The University of Alabama at Birmingham
- 11:35 a.m. **Bayesian Inferences for Bivariate Positive Stable Frailty**—Madhuja Mallick, Merck & Co., Inc.; Nalini Ravishanker, University of Connecticut; Nandini Kannan, University of Texas at San Antonio

- 11:50 a.m. **Bayesian Analysis of the Effect of Intentional Weight Loss on Mortality Rate**—Nengjun Yi, The University of Alabama at Birmingham; Shouluan Ding, The University of Alabama at Birmingham; Scott W. Keith, The University of Alabama at Birmingham; Christopher S. Coffey, The University of Alabama at Birmingham; David B. Allison, The University of Alabama at Birmingham
- 12:05 p.m. **Testing Random Effects in the Linear Mixed Model Using Bayes Factors**—Benjamin Saville, The University of North Carolina at Chapel Hill; Amy H. Herring, The University of North Carolina at Chapel Hill

287

Bayesian Model Selection, FDR, and HIV Applications—Contributed

Section on Bayesian Statistical Science

Chair(s): Richard Carlson, Medica

- 10:35 a.m. **Bayesian Model Selection in High-Dimensional Genetic Association Studies**—Melanie Wilson, Duke University
- 10:50 a.m. **A Bayesian Multiple Comparison Procedure for Unbalanced Mixed Models**—Junfeng Shang, Bowling Green State University; Farroll T. Wright, University of Missouri-Columbia; Joseph Cavanaugh, The University of Iowa
- 11:05 a.m. **Using FDR To Address a Controversy About the Meaning of P Values**—Hormuzd Katki, National Institutes of Health
- 11:20 a.m. **Modeling and Computation for Parametric Bayesian Multiple Hypothesis Testing**—James Scott, Duke University; James Berger, Duke University
- 11:35 a.m. **Nonparametric Bayesian Estimation of Positive False Discovery Rates**—Anindya Roy, University of Maryland, Baltimore County; Subhashis Ghoshal, North Carolina State University; Yongqiang Tang, SUNY Health Science Center
- 11:50 a.m. **A Hierarchical Bayesian Approach in Viral Dynamic System-Based Differential Equation Models with Application to AIDS Studies**—Yangxin Huang, University of South Florida; Hulin Wu, University of Rochester
- 12:05 p.m. **Lipid Analysis for HIV Patients: Does Fasting Bias Matter?**—Xiting Yang, Carnegie Mellon University;

CC-155 E

Joseph B. Kadane, Carnegie Mellon University; Heidi M. Crane, University of Washington

288

CC-250 B

● Sampling Issues and Variance Estimation—Contributed

Section on Government Statistics, Section on Physical and Engineering Sciences, Section on Survey Research Methods

Chair(s): Michael P. Cohen, Statistical Consultant

- 10:35 a.m. **Effects of Calculating Standard Errors Using Sampling versus Variance Weights for 2004 National Nursing Home Survey**—❖ Rong Cai, National Center for Health Statistics; Sarah Gousen, National Center for Health Statistics; Iris Shimizu, National Center for Health Statistics; Robin Remsburg, National Center for Health Statistics
- 10:50 a.m. **Variance Estimations for International Price Program Indexes**—❖ Te-Ching Chen, Bureau of Labor Statistics; Patrick Bobbitt, Bureau of Labor Statistics; James A. Himelein Jr., Bureau of Labor Statistics; Steven P. Paben, Bureau of Labor Statistics; Moon Jung Cho, Bureau of Labor Statistics; Lawrence Ernst, Bureau of Labor Statistics
- 11:05 a.m. **Applying M-Estimation to Computation of Price Indexes**—❖ Zdenek Patak, Statistics Canada
- 11:20 a.m. **Can a Geographic Sort Improve Hot Deck Donor Imputation in the Canadian Census?**—❖ Darryl Janes, Statistics Canada
- 11:35 a.m. **Imputation Classes by Size Measure for the Annual Survey of Manufacture of Statistics Canada**—❖ Yi Li, Statistics Canada
- 11:50 a.m. **Floor Discussion**

289

CC-251 A

⊛ Nonparametric Methods for Reliability and Health Sciences Applications—Contributed

Section on Nonparametric Statistics, Section on Health Policy Statistics, Section on Teaching Statistics in the Health Sciences

Chair(s): Anton Westveld, Washington University in St. Louis

- 10:35 a.m. **A Nonparametric Test for Homogeneity of Survival Means**—❖ Mohammad Rahbar, Michigan State University; Sangchoon Jeon, Michigan State University; Joseph C. Gardiner, Michigan State University

- 10:50 a.m. **The Simultaneous Use of Weighted Logrank and Weighted Kaplan-Meier Statistics with Clustered Right-Censored Data**—Yunchan Chi, National Cheng Kung University; ❖ Pei-Fang Su, National Cheng Kung University
- 11:05 a.m. **Exact, Distribution-Free Confidence Intervals for Late Effects in Censored Matched Pairs**—❖ Shoshana Daniel, University of Pennsylvania; Paul Rosenbaum, University of Pennsylvania
- 11:20 a.m. **Use of the Spike-Motif Distance Metric**—❖ Katherine Tranbarger, Amherst College
- 11:35 a.m. **Semiparametric Estimation of Hazard Function with Failure Indicators MAR**—❖ Chunling Liu, University of Hong Kong; Qihua Wang, University of Hong Kong
- 11:50 a.m. **Nonparametric Estimation of Mean Residual Life Function**—❖ Shufang Liu, North Carolina State University; Sujit Ghosh, North Carolina State University
- 12:05 p.m. **Two-Fold Heteroscedastic Nested Models When the Number of Subclasses Is Large**—❖ Shu-min Liao, The Pennsylvania State University; Michael G. Akritas, The Pennsylvania State University

290

CC-250 C

Helpful Teaching Techniques —Contributed

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

Chair(s): Arlene Casiple, James Madison University

- 10:35 a.m. **An Experience in Teaching Inferential Statistics with Focus on the Analyses of Simple Survey Data**—❖ Bodapati V.R. Gandhi, University of Puerto Rico
- 10:50 a.m. **Teaching Data Mining to Undergraduate Business Students**—❖ Margaretha Hsu, Shippensburg University
- 11:05 a.m. **Students Don't Do 'Optional'**—❖ Kimberly Denley, University of Mississippi
- 11:20 a.m. **Teaching Hypothesis Testing Using a Magic Trick**—❖ Gregory L. Snow, Intermountain Healthcare
- 11:35 a.m. **Pig Data and Bayesian Inference on Multinomial Probabilities**—❖ John Kern, Duquesne University
- 11:50 a.m. **Using Humming To Teach Experimental Design in Introduction Statistics**—❖ Cora Neal, Sonoma State University
- 12:05 p.m. **Using Matlab in the First Probability and Statistics Sequence**—❖ John Turner, U.S. Naval Academy

- 291** **CC-250 EF**
Environmental Health Effects—Contributed
 Section on Statistics and the Environment, ENAR, Section on Health Policy Statistics, Section on Statistical Graphics
Chair(s): Brian Reich, North Carolina State University
- 10:35 a.m. **Targeting Areas at Risk for Childhood Lead Poisoning**—◆ Margaret Conomos, U.S. Environmental Protection Agency; Warren Strauss, Battelle; Tim Pivetz, Battelle; Jyothi Nagaraja, Battelle; Elizabeth Sloan, Battelle; Rona Boehm, Battelle; Michael Schlatt, Battelle; Darlene Wells, Battelle; Michele Morara, Battelle; Bruce Buxton, Battelle; Barry D. Nussbaum, U.S. Environmental Protection Agency; Heather Case, U.S. Environmental Protection Agency
- 10:50 a.m. **Spatio-Temporal Dynamics of Eastern Equine Encephalitis in Southern New Hampshire**—◆ Ernst Linder, University of New Hampshire; Carlee Moser, University of New Hampshire; Francois Laflamme, Statistics Canada; Jason Stull, U.S. Department of Health & Human Services
- 11:05 a.m. **Exploring the Relation Between Frailty and Negative Health Outcomes Associated with Air Pollution in an Older Population**—◆ Sandrah Eckel, Johns Hopkins Bloomberg School of Public Health; Thomas A. Louis, The Johns Hopkins University; Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health; Linda Fried, Johns Hopkins Medical Institutions; Helene Margolis, California Department of Health Services
- 11:20 a.m. **Analysis of the Effect of Pollutants on Respiratory Infection Using Case-Crossover Design and Generalized Additive Models**—◆ Long H. Ngo, BIDMC & Harvard Medical School; Dzung V. Do, University of Medicine and Pharmacy; Thuan Q. Thach, University of Hong Kong; Sumi Mehta, Health Effects Institute; Aaron J. Cohen, Health Effects Institute
- 11:35 a.m. **Demographic and Behavioral Modifiers of Arsenic Exposure Pathways: A Bayesian Hierarchical Analysis of NHEXAS Data**—◆ Rajib Paul, The Ohio State University; Catherine A. Calder, The Ohio State University; Peter F. Craigmile, The Ohio State University; Thomas Santner, The Ohio State University
- 11:50 a.m. **A Correlation Analysis of Bivariate Normal Data Subject to Partial Left-Censoring**—◆ Wendy Leith, Portland State University; Jong Kim, Portland State University; Tom Fielden, Portland State University
- 12:05 p.m. **Floor Discussion**
- 292** **CC-257**
● Statistical Issues in Case-Control and Combined Study Designs—Contributed
 Section on Statistics in Epidemiology, Section on Teaching Statistics in the Health Sciences
Chair(s): Sanjay Shete, The University of Texas M. D. Anderson Cancer Center
- 10:35 a.m. **Sample-Size Calculations in Case-Control Unmatched Studies When Controls Contain Cases**—◆ Xiaolei Liu, University of Cincinnati; Marepalli B. Rao, University of Cincinnati
- 10:50 a.m. **Weighting for Case-Control Studies with Partial Matched Controls**—◆ Ronaldo Iachan, Macro International; Aliza Fink, Macro International
- 11:05 a.m. **A Latent Group Approach for Combining Matched and Unmatched Case-Control Studies**—◆ Mulugeta Gebregziabher, MUSC; Paulo Guimaraes, MUSC; Wendy Cozen, University of California, Los Angeles; David Conti, University of Southern California
- 11:20 a.m. **Joint Modeling for Survival and Longitudinal Data Under Nested Case-Control Sampling**—◆ Chihong Tseng, New York University; Mengling Liu, New York University
- 11:35 a.m. **Statistical Methods for Detecting Microdeletions in Genetic Markers**—◆ Chih-Chieh Wu, The University of Texas M. D. Anderson Cancer Center; Sanjay Shete, The University of Texas M. D. Anderson Cancer Center; Christopher I. Amos, The University of Texas M. D. Anderson Cancer Center
- 11:50 a.m. **Estimating the Prevalence of Disease Using Relatives of Case and Control Profanes**—◆ Kristin Javaras, Harvard School of Public Health; Nan Laird, Harvard University; Brian D. Ripley, Oxford University; James I. Hudson, Harvard Medical School
- 12:05 p.m. **Alleviating Ecological Bias in Generalized Linear Models with Optimal Subsample Design**—◆ Adam N. Glynn, Harvard University; Jon Wakefield, University of Washington; Mark S. Handcock, University of Washington; Thomas Richardson, University of Washington

293

CC-155 D

● Survey Response Propensity and Responsive Design—Contributed

Section on Survey Research Methods

Chair(s): *Matthias Schonlau, RAND Corporation*

- 10:35 a.m. **Evaluating Response Quality of Nonrespondents Using the Imputation Technique**—❖ Cong Ye, University of Maryland; Ting Yan, University of Michigan; Mandi Yu, University of Michigan
- 10:50 a.m. **Using Callback Models To Adjust for Nonignorable Nonresponse in Face-to-Face Surveys**—❖ Paul Biemer, RTI International/The University of North Carolina at Chapel Hill; Kevin Wang, RTI International
- 11:05 a.m. **Assessing Bias in Estimates in a Two-Stage Design from an Early Close Out of the First Stage Data Collection: An Empirical Investigation Using NSRCG Sample Data**—❖ Donsig Jang, Mathematica Policy Research, Inc.; Xiaojing Lin, Mathematica Policy Research, Inc.
- 11:20 a.m. **Optimal Survey Design When Nonrespondents Are Subsampled for Follow-Up**—❖ Alistair J. O'Malley, Harvard Medical School; Alan M. Zaslavsky, Harvard University
- 11:35 a.m. **Research and Responsive Design Options for Survey Data Collection at Statistics Canada**—❖ Chris Mohl, Statistics Canada; Francois Laflamme, Statistics Canada
- 11:50 a.m. **A Dynamic Approach to Response Propensity**—❖ Kristen Olson, University of Michigan
- 12:05 p.m. **Findings from Methodology Innovations on Population Health Survey**—❖ Urban Landreman, Hennepin County HSPHD

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

294

CC-Exhibit Hall D

Contributed Poster Presentations—Contributed

Business and Economics Statistics Section, Section on Bayesian Statistical Science, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Quality and Productivity, Section on Risk Analysis, Section on Statistical Consulting, Section on Statistical Education, Section on Teaching Statistics in the Health Sciences, IMS, Section on Statisticians in Defense and National Security

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

Applications and case studies

- 08 **Assessment Meets Institutional Research**—❖ Julia Norton, California State University, East Bay

Bayesian statistics, hierarchical models

- 09 **Bayesian Analysis of Correlated Proportions (Matched-Pair Data) in 2 x 2 Tables with Incompletely Classified Data: Bayesian Extension of McNemar's Test to Missing Data**—❖ Yan Lin, The University of Texas M. D. Anderson Cancer Center; Stuart R. Lipsitz, Brigham and Women's Hospital; Debajyoti Sinha, Medical University of South; Scott Regenbogen, Harvard School of Public Health; Caprice Greenberg, Brigham and Women's Hospital
- 10 **A Bayesian Model for Inversion of Geophysical Seismic and Electromagnetic Data**—❖ Jinsong Chen, Lawrence Berkeley National Laboratory; Susan Hubbard, Lawrence Berkeley National Laboratory; Michael Hoversten, Chevron Energy Technology Company; Alan Hubbard, University of California, Berkeley
- 11 **Probabilistic Plan Tracking and Detection for Intelligence Analysis**—❖ Sinjini Mitra, The University of Southern California; Paul Cohen, The University of Southern California; Aram Galstyan, The University of Southern California
- 12 **Approximations to Continuous Dynamic Processes in Hierarchical Models**—❖ Amanda R. Cangelosi, Utah State University; Mevin Hooten, Utah State University
- 13 **Bayesian Modeling of Ecosystems in the Permian Mass Extinction**—❖ Michael Karcher, Swarthmore College; Steve Wang, Swarthmore College; Peter Roopnarine, California Academy of Sciences; Kenneth D. Angielczyk, California Academy of Sciences
- 14 **A Bayesian Nonparametric Multivariate Model for Evaluation of Correlated Diagnostic Tests**—❖ Adam Branscum, University of Kentucky; Timothy E. Hanson, The University of Minnesota; Ian Gardner, University of California, Davis
- 15 **Pilot Study on Motivating High School AP Students To Learn Conditional Probability**—❖ Neale Hirsh, NSH & Associates

Clinical trials, drug discovery

- 16 **Bayesian Screening for Pharmacogenetic Effects in Clinical Trials**—❖ Mengye Guo, University of Pennsylvania; Daniel F. Heitjan, University of Pennsylvania
- 17 **Bayesian Statistical Power in Randomized Small Clinical Trials**—❖ Yufeng Li, The University of Alabama at Birmingham; Shouluan Ding, The University of Alabama at Birmingham; Seng-jaw Soong, The University of Alabama at Birmingham

Engineering and physical sciences, chemometrics

- 18 A Stochastic Gravitational Field Simulated by a Monte Carlo Method: An Alternate Explanation for the Dynamics of Neutral Dust Grains in Saturn's Rings—❖ Elizabeth Martinez-Gomez,
- 19 Bivariate Generalized Poisson Regression Model—❖ Felix Famoye, Central Michigan University
- 20 The Application of Statistical Process Control to Chemical Solution Stability—❖ Jennifer Herberich, Pratt & Whitney Rocketdyne

Experimental design

- 21 Aliasing Strings for Some Nonregular Designs with Generalized Minimum Aberration—❖ Debra Ingram, Arkansas State University; Alison L. Wiley, Arkansas State University

Incomplete data analysis, imputation methods

- 22 Semiparametric Maximum Likelihood for Regression Models with Missing Data—❖ Suzanne Dubnicka, Kansas State University

Linear models, GLMs, parametric methods

- 23 Portmanteau Test of Independence for Functional Observations—❖ Robertas Gabrys, Utah State University; Piort Kokoszka, Utah State University
- 24 Generalized Inverse Characteristics in Linear Statistical Modeling—❖ Fang Duan, Sam Houston State University; Cecil Hallum, Sam Houston State University
- 25 Testing for Lack of Dependence in a Functional Linear Model—❖ Inga Maslova, Utah State University; Piort Kokoszka, Utah State University
- 26 A Comparison of Restricted Heteroscedastic Estimators for Small Samples ($n < 50$)—❖ Luis Frank, Universidad de Buenos Aires

Pattern recognition, computer vision, shape analysis, signal processing

- 27 Methods for Constructing Classifiers from Sparse Categorical Data for Forensic Document Analysis—❖ Christopher Saunders, George Mason University; Linda J. Davis, George Mason University

Semiparametric and nonparametric methods

- 28 Testing Equality of Mean Functions for Continuous Time Stochastic Processes—❖ Yolanda Munoz, University of Texas at Houston
- 29 Analysis of Within-Individual Areas Under the Curve Weighted by an Individual Variance—❖ Jeff Thostenson, University of Arkansas for Medical Sciences; Reid Landes, University of Arkansas for Medical Sciences

Spatial statistics, spatio-temporal modeling

- 30 Spatio-Temporal Modeling Using Stochastic Differential Equations—❖ Gavino Puggioni, Duke University
- 31 Spatial Statistics for Entrepreneurial Opportunities—❖ Jerry Platt, University of Redlands

Statistical consulting

- 32 A Bayesian Model and Expansion for Predicting Undergraduate and Graduate Institutional Re-Enrollment Rates and Totals—❖ Lindsay Renfro, Baylor University; Mark Hamner, Texas Woman's University

Statistical education, teaching, and training

- 33 Uses of Packages in R and S-PLUS—❖ Stephen Kaluzny, Insightful Corporation
- 34 Manipulatives To Improve Learning DOE Concepts—❖ James Alloway, EMSQ Associates
- 35 The Progress of Master of Applied Statistics Program at Penn State—❖ Mosuk Chow, The Pennsylvania State University
- 36 Passing On the Passion: Recruiting Students of Statistics—❖ Reid Landes, University of Arkansas for Medical Sciences
- 37 WeBWork in the Statistics Curriculum—❖ Jeff Holt, University of Virginia
- 38 Classroom Response Systems and the Development of Students' Conceptual Understanding: The Value of Question Ambiguity—❖ Robert Terry, University of Oklahoma; Teri J. Murphy, University of Oklahoma; Curtis C. McKnight, University of Oklahoma; Michael Richman, University of Oklahoma
- 39 Comparing Two Proportions with the Binomial Distribution—❖ James B. Orris, Butler University
- 40 Expectations for Statistical Literacy: A Survey of College Faculty—❖ S. David Kriska, Restat Systems; Mark C. Fulcomer, Richard Stockton College of New Jersey; Marcia M. Sass, University of Medicine and Dentistry of New Jersey
- 41 Integrating Video Clips into an Introductory Statistics Course—❖ Edward Mansfield, The University of Alabama; Subhabrata Chakraborti, The University of Alabama
- 42 Classroom Simulation: Distributions of Sales and Queue Lengths at a Fast-Food Counter—❖ Eric Suess, California State University, East Bay; Bruce Trumbo, California State University, East Bay; David Ahlberg, California State University, East Bay
- 43 Using JMP Scripts in Teaching Introductory Statistics—❖ Amy Froelich, Iowa State University; William M. Duckworth, Creighton University

- 44 The International Statistical Literacy Project (ISLP) of the International Association for Statistics Education (IASE): How To Use It for Teaching and Learning—❖ Juana Sanchez, University of California, Los Angeles
- 45 Applying Some Computational Simplifications for Binomial and Poisson Random Variables to the Teaching of Statistical Concepts—❖ Mark C. Fulcomer, Richard Stockton College of New Jersey; S. David Kriska, Restat Systems; Maritza Jauregui, The Richard Stockton College of New Jersey; Marcia M. Sass, University of Medicine and Dentistry of New Jersey; Jallah M. Kennedy, University of Medicine and Dentistry of New Jersey
- 46 A Free Software Live DVD for Statistics—❖ Panayotis Giannakouros, University of Missouri-Kansas City; Lihua Chen, The University of Toledo

Time series/wavelet analysis

- 47 A New Type of Portmanteau Test Based on the Discrete Cosine Transform—❖ Sungun Oh, Sookmyung Women's University; Hyemin Cho, Sookmyung Women's University; In-Kwon Yeo, Sookmyung Women's University
- 48 Prediction Interval Estimation in Transformed ARMA Models—❖ Hyemin Cho, Sookmyung Women's University; Sungun Oh, Sookmyung Women's University; In-Kwon Yeo, Sookmyung Women's University

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

295 **CC-Ballroom D**
Business and Economics Statistics Section
Speaker with Lunch (fee event)—Speaker with Lunch

Business and Economics Statistics Section

Organizer(s): Badi H. Baltagi, Syracuse University

- TL09 The Use of Birth Panel Data in Economic Research—
 ❖ Jason Abrevaya, Purdue University

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

296 **CC-Ballroom A**
Biopharmaceutical Section Roundtables with Lunch (fee event)

Biopharmaceutical Section

Organizer(s): Kaylan Ghosh, Visitation

- TL10 Joining the Evil Empire: What It's Like To Move from Academics to Industry—❖ Robert Parker, Amgen Inc.
- TL11 Statistical Analysis Plans: How, When, Why, and for Whom Do We Do Them?—❖ Bruce Binkowitz, Merck & Co., Inc.
- TL12 JAMA Policy on Independent Analysis and Public Trust—❖ Hong Liu-Seifert, Eli Lilly and Company
- TL13 Blinded Sample Size Re-estimation—❖ Biao Xing, Genentech, Inc.
- TL14 Estimation of Treatment Effects in Randomized Trials with Noncompliance and Crossover: Why ITT Analysis May Not Be Our Best Option—❖ Afisi S. Ismaila, McMaster University; Stephen Walter, McMaster University

297 **CC-Ballroom A**
Section on Bayesian Statistical Science
Roundtable with Lunch (fee event)

Section on Bayesian Statistical Science

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

- TL15 Meta-Analysis of Diagnostic Tests—❖ Vanja Dukic, The University of Chicago

298 **CC-Ballroom A**
Section on Government Statistics Roundtables with Lunch (fee event)

Section on Government Statistics

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

- TL16 Data User Issues with the American Community Survey—❖ Patricia Becker, APB Associates/APDU/SEMCC
- TL17 Remote Access to Microdata—❖ Julia Lane, NORC at the University of Chicago

CANCELLED

299 CC-Ballroom A Section on Health Policy Statistics Roundtables with Lunch (fee event)

Section on Health Policy Statistics

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

- TL18 Recent Methodological Developments on Prediction of Health-Care Costs—❖ Xiao-Hua (Andrew) Zhou, University of Washington
- TL19 Statistical Methods for Measuring Workflow and Workload in Medical Care Systems—❖ Jimmy Efird, John A. Burns School of Medicine

300 CC-Ballroom A Section on Physical and Engineering Sciences Roundtables with Lunch (fee event)

Section on Physical and Engineering Sciences

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

- TL20 Challenges in Mixture Experiments—❖ Greg Piepel, Battelle/PNNL
- TL21 Drug Discovery and Cheminformatics: Advances, Challenges, and Frontiers—Raymond L.H. Lam, Centocor, Inc.; ❖ Jacqueline M. Hughes-Oliver, North Carolina State University

301 CC-Ballroom C Section on Quality and Productivity Roundtables with Lunch (fee event)

Section on Quality and Productivity

Organizer(s): James Williams, *GE Global Research*

- TL22 Tools for Planning and Properly Sizing a Factorial DOE—❖ Shari Kraber, Stat-Ease, Inc.
- TL23 Teaching Experimental Design to Students Planning an Industrial Career—❖ John Lawson, Brigham Young University

302 CC-Ballroom C Section on Statistical Consulting Roundtables with Lunch (fee event)

Section on Statistical Consulting

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

- TL24 Alternative Models for Consulting Services in Academic Medical Centers—❖ Shelley Hurwitz, Harvard Medical School
- TL25 Statistical Consulting in Medical Devices: Opportunities and Challenges—❖ Jianxiong Chu, U.S. Food and Drug Administration

303 CC-Ballroom C Section on Statistical Education Roundtables with Lunch (fee event)

Section on Statistical Education

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

- TL26 My Favorite Case Study—❖ Laura Chihara, Carleton College
- TL27 Group Work and How To Assess It—❖ William Harkness, The Pennsylvania State University
- TL28 What Is So Great About Service Learning (SL), and How Much Work Is It?—❖ Amy Phelps, Duquesne University

304 CC-Ballroom C Section on Statistics in Epidemiology Roundtable with Lunch (fee event)

Section on Statistics in Epidemiology

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

- TL29 Managing the Biostatistics Consulting Service in an Academic Hospital—❖ Dianne M. Finkelstein, Harvard/MGH

305 CC-Ballroom C Social Statistics Section Roundtable with Lunch (fee event)

Social Statistics Section

Organizer(s): Jana Asher, *Carnegie Mellon University*

- TL30 From Soft to Hard Science: Will Survey Research Make the Transition?—❖ Robert Fay, U.S. Census Bureau

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

306 CC-255 B ASA College Stat Bowl II—Other

ASA, IMS, ENAR, WNAR, SSC

Organizer(s): Stephanie Cano, *University of Texas at San Antonio*; Michael T. Anderson, *University of Texas at San Antonio*

Chair(s): Michael T. Anderson, *University of Texas at San Antonio*

Round 2—❖ Winners from Session 1

Invited Sessions 2:00 p.m.–3:50 p.m.**307****CC-258****⊛ Functional Data Analysis—Invited**

IMS, Biometrics Section, Section on Nonparametric Statistics

*Organizer(s): Bernard W. Silverman, St. Peter's College**Chair(s): Bernard W. Silverman, St. Peter's College*

- 2:05 p.m. **A Smoothing Spline ANOVA Approach to Fit Functional Linear Models**—❖ Yuedong Wang, University of California, Santa Barbara
- 2:35 p.m. **Interpretable Functional Generalized Linear Models**—❖ Gareth James, University of Southern California; Peter Radchenko, University of Southern California
- 3:05 p.m. **Iterative Functional Principal Component Analysis for Correlation Reduction**—❖ Fang Yao, University of Toronto; C. M. Lee, Colorado State University
- 3:35 p.m. **Floor Discussion**

308**CC-259****Bayesian Model Selection—Invited**

IMS, Section on Bayesian Statistical Science

*Organizer(s): Edward I. George, University of Pennsylvania**Chair(s): Edward I. George, University of Pennsylvania*

- 2:05 p.m. **Bayesian Model Selection and Levy Random Field Priors**—❖ Merlise A. Clyde, Duke University
- 2:35 p.m. **Fully Nonparametric Bayesian Ensemble Modeling**—❖ Robert McCulloch, The University of Chicago Graduate School of Business; Edward I. George, University of Pennsylvania; Hugh Chipman, Acadia University
- 3:05 p.m. **Multiple Shrinkage Predictive Densities for Linear Regression Models**—❖ Xinyi Xu, The Ohio State University; Edward I. George, University of Pennsylvania
- 3:35 p.m. **Floor Discussion**

309**CC-355 A****● ⊛ Technometrics Invited Session: Topics in Information Technology—Invited***Technometrics, Section on Statisticians in Defense and National Security, Section on Quality and Productivity**Organizer(s): Randy R. Sitter, Simon Fraser University**Chair(s): Randy R. Sitter, Simon Fraser University*

- 2:05 p.m. **Embracing Statistical Challenges in the Information Technology Age**—❖ Bin Yu, University of California, Berkeley
- 2:35 p.m. **Statistical Principles in Image Modeling**—❖ Ying Nian Wu, University of California, Los Angeles; Jinhui Li, University of California, Los Angeles; Ziqiang Liu, University of California, Los Angeles; Song-Chun Zhu, University of California, Los Angeles
- 3:05 p.m. **A Statistical View of the Transient Signals That Support a Wireless Call**—❖ Diane Lambert, Google; David A. James, Novartis Pharmaceuticals; Chuanhai Liu, Purdue University; A. Buvanewari, Alcatel-Lucent; John M. Graybeal, Alcatel-Lucent; W. Michael MacDonald, Alcatel-Lucent
- 3:35 p.m. **Floor Discussion**

310**CC-355 D****● ⊛ A Sensible Way To Design a Longitudinal Study—Invited***WNAR, Section on Statistical Consulting, Section on Statistics in Epidemiology, Section on Health Policy Statistics, Biometrics Section, Section on Survey Research Methods, ENAR**Organizer(s): Martijn P.F. Berger, University of Maastricht**Chair(s): Mirjam Moerbeek, Utrecht University*

- 2:05 p.m. **Sample Size Determination for Hierarchical Longitudinal Designs with Differential Attrition Rates**—Anindya Roy, University of Maryland, Baltimore County; ❖ Dulal K. Bhaumik, University of Illinois at Chicago; Subhash Aryal, University of Illinois at Chicago; Robert D. Gibbons, University of Illinois at Chicago
- 2:30 p.m. **A Response Adaptive Repeated Measurement Design for Clinical Trials**—❖ Kimmie C. Carriere, University of Alberta; Yuanyuan Liang, University of Alberta
- 2:55 p.m. **Optimal Designs for Linear Mixed Effects Models**—❖ Martijn P. F. Berger, University of Maastricht
- 3:20 p.m. **Disc: Geert Molenberghs, Hasselt University**
- 3:40 p.m. **Floor Discussion**

- 311** **CC-355 B**

● ★ **Modeling Time-Varying Exposures in Epidemiology—Invited**

Section on Statistics in Epidemiology, Section on Health Policy Statistics, Section on Teaching Statistics in the Health Sciences

Organizer(s): David B. Dunson, National Institute of Environmental Health Sciences

Chair(s): David B. Dunson, National Institute of Environmental Health Sciences

2:05 p.m. **Semiparametric Bayesian Latent Trajectory Models**—♦ Amy H. Herring, The University of North Carolina at Chapel Hill; David B. Dunson, National Institute of Environmental Health Sciences

2:35 p.m. **Bayesian Semiparametric Clustering of Functional Predictors**—♦ Jamie Bigelow, Duke University

3:05 p.m. **Modeling Time-Varying Exposures in Epidemiology**—♦ Francesca Dominici, The Johns Hopkins University

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

312 **CC-155 C**

● ★ **Scagnostics—Invited**

Section on Statistical Graphics

Organizer(s): Leland Wilkinson, SPSS Inc.

Chair(s): Paul Tukey, Telcordia Labs

2:05 p.m. **Scagnostics in R**—♦ Hadley Wickham, Iowa State University; Duncan Temple Lang, University of California, Davis

2:35 p.m. **Scagnostic-Driven Autovisualization**—♦ Graham Wills, SPSS Inc.

3:05 p.m. **Scagnostics for Projection Pursuit**—♦ Heike Hofmann, Iowa State University; Dianne Cook, Iowa State University; Hadley Wickham, Iowa State University

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

313 **CC-155 B**

● **Bayesian Bioinformatics—Invited**

Section on Bayesian Statistical Science, ENAR, Biometrics Section

Organizer(s): Marina Vannucci, Texas A&M University

Chair(s): Jeffrey S. Morris, The University of Texas M. D. Anderson Cancer Center

2:05 p.m. **Simultaneous Inference for Multiple Testing and Clustering via a Dirichlet Process Mixture Model**—♦ David B. Dahl, Texas A&M University; Qianxing Mo, Texas A&M University; Marina Vannucci, Texas A&M University

2:30 p.m. **A Bayesian Branching Process Model for Loss of Cell Cycle Synchrony**—♦ Edwin Iversen, Duke University; David Orlando, Duke University; Allister Bernard, Duke University; Alexander Hartemink, Duke University

2:55 p.m. **Better Stochastic Mapping and Effective Tests for Evolutionary Innovation**—♦ Marc A. Suchard, University of California, Los Angeles; Vladimir N. Minin, University of California, Los Angeles

3:20 p.m. **Associating High-Dimensional Response and Covariate Data**—♦ Mahlet G. Tadesse, University of Pennsylvania; Stefano Monni, University of Pennsylvania

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

314 **CC-254 C**

● ★ **Issues in Modeling Product Choices in Marketing—Invited**

Section on Statistics and Marketing

Organizer(s): Peter Boatwright, Carnegie Mellon University

Chair(s): Samuel Koslowsky, Harte Hanks Analytics

2:05 p.m. **Market Share Constraints and the Loss Function in Choice-Based Conjoint Analysis**—♦ Timothy Gilbride, University of Notre Dame; Peter Lenk, The University of Michigan; Jeff Brazell, The Modellers, LLC

2:35 p.m. **Unobserved Change in Conjoint Analysis**—♦ Thomas Otter, The Ohio State University; Sylvia Fruehwirth-Schnatter, Johannes Kepler Universitaet Linz; Regina Tuechler, Vienna University of Economics and Business Administration

3:05 p.m. **Deconstructing Each Item's Category Contribution**—♦ Sharad Borle, Rice University; Peter Boatwright, Carnegie Mellon University; Kirthi Kalyanam, Santa Clara University

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

315 **CC-257**

Investing in Our Youth as Future Users of Statistics and Future Respondents—Invited

Section on Government Statistics, Section on Statistical Education

Organizer(s): Robert Lussier, Statistics Canada

Chair(s): Robert Lussier, Statistics Canada

2:05 p.m. **Statistics Canada's Education Outreach Program: Fostering a Data and Knowledge Culture in Canadian Youth**—♦ Mary Townsend, Statistics Canada

- 2:30 p.m. **How to Make the Census Exciting for Educators and K–12 Students**—❖ Kimberly Crews, U.S. Census Bureau
- 2:55 p.m. **Web Services as an Aid in Promoting Statistical Knowledge Within Educational Institutions**—❖ Reija Helenius, Statistics Finland
- 3:20 p.m. Disc: Cynthia Clark, Office for National Statistics
- 3:40 p.m. **Floor Discussion**

316**CC-260****● ⊛ Causal Inference in Education Research—Invited**

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

Organizer(s): Elizabeth A. Stuart, Johns Hopkins Bloomberg School of Public Health

Chair(s): Elizabeth A. Stuart, Johns Hopkins Bloomberg School of Public Health

- 2:05 p.m. **Random Assignment Designs, Issues of Implementation, and Analytic Challenges Faced in Education Settings**—❖ David Myers, American Institutes for Research
- 2:30 p.m. **Causal Inference and Accountability in NYC Public Schools**—❖ Jennifer Hill, Columbia University
- 2:55 p.m. **Regression Discontinuity Analyses of the Effects of NCLB Accountability Provisions on Student Achievement**—❖ John R. Lockwood, RAND Corporation; Brian P. Gill, RAND Corporation; Messan C. Setodji, RAND Corporation; Francisco Martorell, RAND Corporation
- 3:20 p.m. Disc: Audrey Pendleton, U.S. Department of Education
- 3:40 p.m. **Floor Discussion**

317**CC-255 F****● ⊛ Statistical Methods in Nanotechnology—Invited**

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

Organizer(s): Chien-Fu Jeff Wu, Georgia Institute of Technology

Chair(s): Robert W. Mee, University of Tennessee

- 2:05 p.m. **Experimental Design and Analysis for Robust Synthesis of Nanostructures**—❖ Chien-Fu Jeff Wu, Georgia Institute of Technology; Tirthankar Dasgupta, Georgia Institute of Technology; Roshan Vengazhiyil, Georgia Institute of Technology; Zhong Lin Wang, Georgia Institute of Technology; Christopher Ma, Georgia Institute of Technology

- 2:40 p.m. **Challenges Related to Reliability and Statistics in Nano Electronics**—Way Kuo, University of Tennessee; ❖ Tao Yuan, University of Tennessee
- 3:15 p.m. Disc: David Banks, Duke University
- 3:35 p.m. **Floor Discussion**

318**CC-155 A****● ⊛ Anomaly Detection Methods for Multivariate, Distributed, and Stratified Data in Biosurveillance—Invited**

Section on Statisticians in Defense and National Security, Section on Statistics in Epidemiology, Section on Health Policy Statistics, Section on Risk Analysis, Section on Physical and Engineering Sciences

Organizer(s): Howard S. Burkom, The Johns Hopkins University

Chair(s): Howard S. Burkom, The Johns Hopkins University

- 2:05 p.m. **A Multivariate Bayesian Method for Spatial Biosurveillance**—❖ Daniel B. Neill, Carnegie Mellon University; Andrew W. Moore, Carnegie Mellon University; Gregory F. Cooper, University of Pittsburgh
- 2:30 p.m. **Multivariate Health Surveillance Using a Network of Bayesian Data Fusion Models**—❖ Zaruhi R. Mnatsakanyan, The Johns Hopkins University; Howard S. Burkom, The Johns Hopkins University
- 2:55 p.m. **Epidemiological Network Models for Disease Outbreak Detection**—❖ Ben Y. Reis, Harvard Medical School
- 3:20 p.m. **KFC: Anomaly Detection in Multivariate Cross-Classified Datastreams**—❖ Colin Goodall, AT&T Labs - Research
- 3:45 p.m. **Floor Discussion**

Invited Panels 2:00 p.m.–3:50 p.m.**319****CC-251 E****Integrating Innovative Technology Resources into Introductory Courses—Invited**

Section on Statistical Education

Organizer(s): Kim Robinson Gilbert, Georgia Gwinnett College

Chair(s): Robert Gould, University of California, Los Angeles

- Panelists:** ❖ Jacqueline Miller, The Ohio State University
- ❖ Kim Robinson Gilbert, Georgia Gwinnett College
- ❖ Nicholas Horton, Smith College

- ❖ Ginger Holmes Rowell, Middle Tennessee State University
- ❖ Roxy Peck, California Polytechnic State University

3:45 p.m. Floor Discussion

Topic-Contributed Sessions

2:00 p.m.–3:50 p.m.

320

CC-254 B

● Real-Time Analysis of Revised Macroeconomic Data—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Peter Zadrozny, Bureau of Labor Statistics

Chair(s): William R. Bell, U.S. Census Bureau

2:05 p.m. Real-Time Filtered Estimates of Final Superlative CPI Based on an Estimated Monthly VAR Model of Initial and Final Superlative CPI—❖Peter Zadrozny, Bureau of Labor Statistics

2:25 p.m. Real-Time Estimation of Revised GDP Based on an Estimated Model of Initial and Revised GDP—❖Baoline Chen, Bureau of Economic Analysis; Peter Zadrozny, Bureau of Labor Statistics

2:45 p.m. VAR Estimation and Forecasting When Data Are Subject to Revision—❖Evan Koenig, Federal Reserve Bank of Dallas; N. Kundan Kishor, Texas Tech University

3:05 p.m. Modeling Data Revisions: Measurement Error and Dynamics of 'True' Values—❖Jan Jacobs, University of Groningen; Simon van Norden, HEC Montreal

3:25 p.m. A State Space Approach to the Policymaker's Data Uncertainty Problem—❖Jana Eklund, Bank of England; Alastair Cunningham, Bank of England; George Kapetanios, Bank of England/Queen Mary, University of London; Chris Jeffery, Bank of England; Vincent Labhard, European Central Bank

3:45 p.m. Floor Discussion

321

CC-255 E

●★ The Role of Statistics in Ecological and Climate Modeling—Topic-Contributed

Section on Statistics and the Environment, ENAR, International Indian

Statistical Assoc, Reps. For Young Statisticians

Organizer(s): Montserrat Fuentes, North Carolina State University

Chair(s): Bo Li, National Center for Atmospheric Research

2:05 p.m. Getting What We Need from Wireless Sensor Networks: A Role for Inferential Ecosystem Models—❖James Clark, Duke University; Pankaj Agarwal, Duke University; David Bell, Duke University; Carla Ellis, Duke University; Paul Flikkema, Northern Arizona University; Alan E. Gelfand, Duke University; Gabriel Katul, Duke University; Kamesh Munagala, Duke University; Gavino Puggioni, Duke University; Adam Silberstein, Duke University; Jun Yang, Duke University

2:25 p.m. The Uncertain Hockey Stick: A Statistical Perspective on the Reconstruction of Past Temperatures—❖Douglas Nychka, National Center for Atmospheric Research

2:45 p.m. Modeling Extremes in Regional Climate Model Simulations—❖Daniel Cooley, Colorado State University; Stephan Sain, National Center for Atmospheric Research

3:05 p.m. Functional ANOVA Modeling of Regional Climate Model Experiments—❖Cari Kaufman, Statistical and Applied Mathematical Sciences Institute/North Carolina State University; Stephan Sain, National Center for Atmospheric Research

3:25 p.m. Spatio-Temporal Processing of MISR's Aerosol Optical Depth Data—❖Tao Shi, The Ohio State University; Noel Cressie, The Ohio State University

3:45 p.m. Floor Discussion

322

CC-250 EF

●★ Advanced Quantitative Brain MRI—Topic-Contributed

Biometrics Section

Organizer(s): Daniel Rowe, Medical College of Wisconsin

Chair(s): Daniel Rowe, Medical College of Wisconsin

2:05 p.m. The Acquisition and Statistical Analysis of High Temporal Resolution 3D fMRI Data—❖Martin Lindquist, Columbia University

2:25 p.m. Semiparametric Detection of Significant Activation for Brain fMRI—❖Chunming Zhang, University of Wisconsin-Madison; Tao Yu, University of Wisconsin-Madison

2:45 p.m. Brain Asymmetry Analysis via Weighted Spherical Harmonic Representation—❖Moo K. Chung, University of Wisconsin-Madison

- 3:05 p.m. **Estimation of Pre-Post Surgical Changes in the fMRI Visual Field Map**—❖ Raymond Hoffmann, Medical College of Wisconsin; Edgar A. DeYoe, The Medical College of Wisconsin; Mary Jo Maciejewski, Marquette University; Daniel Rowe, Medical College of Wisconsin
- 3:25 p.m. **Statistical Analysis of Diffusion Tensors in Diffusion-Weighted Magnetic Resonance Image Data**—❖ Hongtu Zhu, The University of North Carolina at Chapel Hill; Heping Zhang, Yale University; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Bradley G. Peterson, Columbia University
- 3:45 p.m. **Floor Discussion**

323 CC-355 F

● ⊛ Challenges in Medical Device Trials: Novel Approaches to Design and Analysis—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Greg Campbell, U.S. Food and Drug Administration

Chair(s): Gosford Sawyerr, Purdue Pharma, LP

- 2:05 p.m. **Experimental Design for Assessing the Effect of Bone Density on Mechanical Properties After Vertebroplasty**—❖ Chul Ahn, U.S. Food and Drug Administration
- 2:25 p.m. **On the Use of Fisher's Exact Test When Randomization Is Sitewise**—❖ Shanti Gomatam, U.S. Food and Drug Administration
- 2:45 p.m. **Control of Type I Error and the Correlation of Multiple Endpoints in a Medical Device Trial**—❖ Kevin Najarian, Boston Scientific Corporation; Carola Alfaro, Boston Scientific Corporation
- 3:05 p.m. **A Comparison of Statistical Approaches for Long-Term MACE Rate in a Medical Device Trial**—❖ Jian Huang, Boston Scientific Corporation; Lan Pan, Boston Scientific Corporation
- 3:25 p.m. **The SYNTAX Score: Development of a Predictive Scoring Algorithm To Determine Treatment Assignment in Complex Coronary Patients**—❖ Eric Bass, Boston Scientific Corporation; Peggy Pereda, Boston Scientific Corporation
- 3:45 p.m. **Floor Discussion**

324 CC-251 F

Statistical Issues in HIV/AIDS Research—Topic-Contributed

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

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

Chair(s): Ramses Sadek, Centers for Disease Control and Prevention

- 2:05 p.m. **Estimates of Intraclass Correlation from the Community Intervention Trial for Youth (CITY): An HIV Prevention Intervention for Young Men Who Have Sex with Men**—❖ Sherri L. Pals, Centers for Disease Control and Prevention; Lillian S. Lin, Centers for Disease Control and Prevention; Carolyn Guenther-Grey, Centers for Disease Control and Prevention; Johnson Wayne, Centers for Disease Control and Prevention
- 2:25 p.m. **Effect of Multiple Imputation on the HIV Prevalence Estimate and Analysis of Risk Factors for HIV Infection: Guyana 2004**—❖ Maxine Denniston, Centers for Disease Control and Prevention; Nicole Seguy, Centers for Disease Control and Prevention
- 2:45 p.m. **On the Bias of Case Counts Adjusted for Reporting Delay**—❖ Ruiguang Song, Centers for Disease Control and Prevention
- 3:05 p.m. **A Comparison of Various Analytical Methods for U-Shape Distributed Random Variables: A Real-World Application from a Behavioral Intervention Trial**—❖ Terry Wang, Centers for Disease Control and Prevention; Torrance T. Stephens, Morehouse School of Medicine; Lillian S. Lin, Centers for Disease Control and Prevention
- 3:25 p.m. **Disc: Ryan Wiegand, Centers for Disease Control and Prevention**
- 3:45 p.m. **Floor Discussion**

325 CC-250 A

● ⊛ Statistical Methods for Studying Gene Expression and Transcriptional Regulation—Topic-Contributed

IMS, ENAR, Section on Physical and Engineering Sciences

Organizer(s): Jun Xie, Purdue University

Chair(s): Ping Ma, University of Illinois

- 2:05 p.m. **Clustering Time Course Gene Expression Data Using Nonparametric Hypothesis Testing**—❖ Haiyan Wang, Kansas State University; James Neill, Kansas State University; Forrest Miller, Kansas State University

- 2:25 p.m. **Studying the Relationship Between Coexpression and Coregulation of Protein Complex Using ChIP-Chip Data**—❖Ching-Ti Liu, Yale University; Ker-Chau Li, University of California, Los Angeles
- 2:45 p.m. **Protein Multiple Alignment Using Primary and Secondary Structure Information**—❖Nak-Kyeong Kim, National Institutes of Health; Jun Xie, Purdue University
- 3:05 p.m. **Detection of eQTL Modules Mediated by Activity Levels of Transcription Factors**—❖Wei Sun, University of California, Los Angeles; Ker-Chau Li, University of California, Los Angeles; Tianwei Yu, Emory University
- 3:25 p.m. **Variable Selection Using Single Index Models for Motif Discovery**—❖Wenxuan Zhong, Harvard University
- 3:45 p.m. **Floor Discussion**

326 CC-254 A ●❖ Applications of Bayesian Inference in Wildlife Ecology—Topic-Contributed

Section on Bayesian Statistical Science, ENAR, Section on Statistics and the Environment

Organizer(s): Robert Dorazio, U.S. Geological Survey/University of Florida

- 2:05 p.m. **A Hierarchical Bayesian Model for Stochastic Metapopulation Viability in the Presence of Translocation**—❖Christopher K. Wickle, University of Missouri-Columbia; Samuel F. Bussman, University of Missouri-Columbia; Robert L. Schooley, University of Illinois
- 2:25 p.m. **Discrete Representations of Ecological Process Models in the Presence of Uncertainty and Data**—❖Mevin Hooten, Utah State University; Amanda R. Cangelosi, Utah State University
- 2:45 p.m. **Continuous-Time Modeling of Marine Mammal Telemetry Data**—❖Devin Johnson, National Marine Mammal Laboratory; John Durbin, National Marine Mammal Laboratory; Mary-Anne Lea, National Marine Mammal Laboratory; Joshua London, National Marine Mammal Laboratory
- 3:05 p.m. **Estimation of Carcass Recovery Rates for Florida Manatees Using MCMC**—❖Christopher Fonnesbeck, Fish & Wildlife Research Institute; Carol Sanders-Reed,
- 3:25 p.m. **Modeling Unobserved Sources of Heterogeneity in Animal Abundance Using a Dirichlet Process Prior**—❖Robert Dorazio, U.S. Geological Survey/

University of Florida; Bhramar Mukherjee, University of Michigan; Li Zhang, The Cleveland Clinic; Malay Ghosh, University of Florida

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

327 CC-155 D ●❖ Nonparametric and Robust Methods for Genetic Data Analysis—Topic-Contributed

Section on Nonparametric Statistics, WNAR

Organizer(s): Gang Zheng, National Heart, Lung, and Blood Institute

Chair(s): Gang Zheng, National Heart, Lung, and Blood Institute

- 2:05 p.m. **Empirical Likelihood-Based Inferences in a Complex Genetic Mixture Model**—❖Jing Qin, National Institutes of Health
- 2:25 p.m. **A Method Toward Mapping of Common Traits**—❖Shaw-Hwa Lo, Columbia University; Tian Zheng, Columbia University
- 2:45 p.m. **Two-Stage Tests for Association on the X Chromosome**—❖Jungnam Joo, National Heart, Lung, and Blood Institute
- 3:05 p.m. **Genetic Model Selection in Two-Stage Analysis for Case-Control Association Studies**—❖Hon Keung (Tony) Ng, Southern Methodist University; Gang Zheng, National Heart, Lung, and Blood Institute
- 3:25 p.m. **A New Hypothesis-Testing Approach When the Nuisance Parameter Is Only Present Under the Alternative Hypothesis**—❖Olivier Thas, Ghent University; Gang Zheng, National Heart, Lung, and Blood Institute
- 3:45 p.m. **Floor Discussion**

328 CC-251 A Statistical Methods for Graphs and Networks—Topic-Contributed

Section on Statistical Computing, Section on Statistical Graphics

Organizer(s): Sujay Datta, Texas A&M University

Chair(s): Sujay Datta, Texas A&M University

- 2:05 p.m. **Bayesian Self-Modeling Warping Regression**—❖Donatello Telesca, University of Washington; Lurdes Inoue, University of Washington
- 2:25 p.m. **What Is a 'Random Network'?**—❖David Hunter, The Pennsylvania State University
- 2:45 p.m. **Collective Inference for Network-Based Marketing**—❖Shawndra Hill, University of Pennsylvania

- 3:05 p.m. **Transitivity in Weighted Graphs: Effects on the Topology of Knowledge and Social Networks—**
❖Tiago Simas, Indiana University; Bharat Dravid, Indiana University; Luis Rocha, Indiana University
- 3:25 p.m. **Floor Discussion**

329**CC-355 C****● Studies with Multiple Biomarkers —Topic-Contributed**

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Organizer(s): Estelle Russek-Cohen, U.S. Food and Drug Administration; Ursula Garczarek, Roche Diagnostics GmbH

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

- 2:05 p.m. **Diagnostic and Analytical Accuracies of Qualitative Multiplex Tests—**❖Marina Kondratovich, U.S. Food and Drug Administration
- 2:25 p.m. **Interpretation of Multimarker Scores—**❖Ursula Garczarek, Roche Diagnostics GmbH
- 2:45 p.m. **Multivariate Assays Reporting a Composite Score—**❖Estelle Russek-Cohen, U.S. Food and Drug Administration; Mary Pastel, U.S. Food and Drug Administration; Zivana Tezek, U.S. Food and Drug Administration
- 3:05 p.m. **Principal Component Analysis for Data Reduction of Gait Analysis for Knee Prosthesis Research—**
❖Jeffrey Murphy, DePuy Orthopaedics; Luke Aram, DePuy Orthopaedics; Jordan Lee, DePuy Orthopaedics; Travis Bennett, DePuy Orthopaedics; Catherine Truxillo, SAS Institute Inc.; Paul Rullkoetter, University of Denver
- 3:25 p.m. **Utilizing Multiple Biomarkers To Assess Myocardial Function in a Dose-Finding Study: Determining the Optimal Dose by 'Scoring' the Outcomes—**❖Cynthia L. Green, Duke Clinical Research Institute; Kathleen Trollinger, Duke Clinical Research Institute; Saling Huang, KAI Pharmaceuticals; Matthew Roe, Duke Clinical Research Institute
- 3:45 p.m. **Floor Discussion**

330**CC-255 D****Multiple Frame Survey Design and Inference—Topic-Contributed**

Section on Survey Research Methods

Organizer(s): Marianne Winglee, Westat

Chair(s): Marianne Winglee, Westat

- 2:05 p.m. **A Case Study in Dual-Frame Estimation Methods—**

❖Keith Rust, Westat; Inho Park, Westat; Marianne Winglee, Westat; Gary Shapiro, Westat

- 2:25 p.m. **A Strategy for Estimating the Number of Minority-Operated Farms—**❖Matthew J. Fetter, USDA National Agricultural Statistics Service; Phillip S. Kott, USDA National Agricultural Statistics Service

- 2:45 p.m. **Linearization Variance Estimators for Dual Frame Survey Data—**❖Abdellatif Demnati, Statistics Canada; J. N. K. Rao, Carleton University; Mike A. Hidiogrou, Statistics Canada; Jean-Louis Tambay, Statistics Canada

- 3:05 p.m. **Designing a Dual-Frame Survey for Breeding Bald Eagle Pairs in the Lower 48 States—**❖Mark C. Otto, U.S. Fish & Wildlife Service; John R. Sauer, U.S. Geological Survey

- 3:25 p.m. **Disc:** Michael Bankier, Statistics Canada

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

331**CC-251 D****⊕ Joint Analysis of Longitudinal and Survival Data—Topic-Contributed**

WNAR, Biometrics Section, ENAR, Section on Risk Analysis, Section on Statistics in Epidemiology

Organizer(s): Gang Li, University of California, Los Angeles

Chair(s): Gang Li, University of California, Los Angeles

- 2:05 p.m. **Joint Modeling of Recurrent Event and Event Marker—**❖Jianwen Cai, The University of North Carolina at Chapel Hill; Donglin Zeng, The University of North Carolina at Chapel Hill

- 2:25 p.m. **Robust Inference for Joint Modeling of Longitudinal Measurements and Competing Risks Failure Time Data—**❖Ning Li, University of California, Los Angeles; Gang Li, University of California, Los Angeles; Robert Elashoff, University of California, Los Angeles

- 2:45 p.m. **Joint Analysis of Longitudinal Measurements and Competing Risks Failure Time Data: A Bayesian Approach—**❖Wenhua Hu, University of California, Los Angeles; Gang Li, University of California, Los Angeles

- 3:05 p.m. **Joint Analysis of Repeated State Transition in Activities of Daily Living and Death in Longitudinal Aging Study—**❖Haiqun Lin, Yale University; Zhenchao Guo, Yale University; Peter Peduzzi, Yale University; Thomas Gill, Yale University; Heather G. Allore, Yale University

- 3:25 p.m. Disc: Xin Huang, University of California, Los Angeles
- 3:45 p.m. Floor Discussion

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

332 CC-155 F

● ✦ Applications of Bayesian Statistical Method—Contributed

Biometrics Section

Chair(s): Erning Li, Texas A&M University

- 2:05 p.m. Estimating the Survivor Average Causal Effect in Nonrandomized Studies Where Treatment Assignment Is Missing for Some Patients—✦ Abbie Stokes-Riner, University of Rochester; Jason Roy, Geisinger Health System; Sally W. Thurston, University of Rochester
- 2:20 p.m. Bayesian Modeling of Multivariate Binary Response with a Change-Point for Applications to Adolescent Offender Registry—✦ Dipankar Bandyopadhyay, Medical University of South Carolina; Debajyoti Sinha, Medical University of South; Stuart R. Lipsitz, Brigham and Women's Hospital; Elizabeth Letourneau, Medical University of South Carolina
- 2:35 p.m. Bayesian Genome-Wide Screening via Pseudo Perfect Sampling for Quantitative Trait Loci Problems—✦ Cheongeun Oh, University of Medicine and Dentistry of New Jersey
- 2:50 p.m. Ridge Regression To Accommodate LD in WGA Studies—✦ Nathalie Malo, University of California, San Diego; Jennifer Wessel, University of California, San Diego; Nicholas J. Schork, University of California, San Diego
- 3:05 p.m. Small Sample Conditional Inference for the Cox Model—✦ Juan Zhang, Rutgers University; John E. Kolassa, Rutgers University
- 3:20 p.m. A Bayesian Analysis of Spatially Correlated Binary Data with Applications in Dental Research—✦ Yanwei Zhang, Michigan State University; David Todem, Michigan State University; R. V. Ramamoorthi, Michigan State University
- 3:35 p.m. Hierarchical Mixed Membership Models for Honey Bee Genomes—✦ Tanzy Love, Carnegie Mellon University

333 CC-250 D

● ✦ Robust Modeling Strategy—Contributed

Biometrics Section, Section on Nonparametric Statistics

Chair(s): Honghua Jiang, Eli Lilly and Company

- 2:05 p.m. Variability Study of a Robust Estimator of Mutation Rate in Fluctuation Analysis—✦ Xiaowei Wu, Rice University; Erin Strome, Texas Children's Cancer Center; Sharon Plon, Texas Children's Cancer Center; Marek Kimmel, Rice University
- 2:20 p.m. Robust Quantile Regression with Structured Design Space—✦ Ying Wei, Columbia University; Matías Salibián-Barrera, The University of British Columbia
- 2:35 p.m. A Rank Regression Analysis of Hormonal and Cytokine Effects on Birth Outcome—✦ Alai Tan, The University of Texas Medical Branch; Roberta J. Ruiz, The University of Texas Medical Branch; Daniel H. Freeman, The University of Texas Medical Branch
- 2:50 p.m. Sequential Confidence Limits for the Ratio of Two Binomial Proportions—✦ Hokwon Cho, University of Nevada, Las Vegas; Z. Govindarajulu, University of Kentucky
- 3:05 p.m. An Index of Local Sensitivity to Nonignorability Under Pseudo-Likelihood—✦ Fang Zhu, University of Pittsburgh; Gong Tang, University of Pittsburgh
- 3:20 p.m. Fiducial Generalized Confidence Interval for Median Lethal Dose (LD50)—✦ Lidong E, Colorado State University; Jan Hannig, Colorado State University; Hariharan Iyer, Colorado State University
- 3:35 p.m. Multinomial Logistic Regression Models with a Stochastic Design Variable—✦ Evrim Oral, Middle East Technical University

334 CC-Ballroom B

● ✦ Adaptive Designs in Drug Development—Contributed

Biopharmaceutical Section, Biometrics Section

Chair(s): Kimberly Crimin, Wyeth

- 2:05 p.m. Findings from Simulation Studies on Treatment (Trt) Switching in Clinical Trial (CT)—✦ Dachuang Cao, Eli Lilly and Company; Hongmei Jiang, Northwestern University,
- 2:20 p.m. Adaptive Design with Continuous Responses and Binary Utility—✦ Yuehui Wu, GlaxoSmithKline; Valeri V. Fedorov, GlaxoSmithKline

- 2:35 p.m. **Midcourse Selection of the Primary Endpoint in Clinical Trials**—❖ Zhilong Yuan, Johnson & Johnson PRD; Yang Song, Johnson & Johnson PRD; Xiaolong Luo, Johnson & Johnson PRD; George Chi, Johnson & Johnson PRD
- 2:50 p.m. **On Treatment Selection in Accelerated Drug Development**—❖ Ying Wan, Temple University; Keaven M. Anderson, Merck & Co., Inc.; Cong Chen, Merck & Co., Inc.; Boris Iglewicz, Temple University
- 3:05 p.m. **Adaptive Treatment Selection in Seamless Phase II/III Designs**—❖ Xiaoling Wu, Bristol-Myers Squibb Company
- 3:20 p.m. **Adaptive Design and Decision Analysis: Companions for Transforming Clinical Development**—❖ Andreas Sashegyi, Eli Lilly and Company
- 3:35 p.m. **Unweighted versus Weighted Adaptive Design and Its Application in COPD Clinical Trials**—❖ Peter Zhang, Otsuka Pharmaceutical Development & Commercialization, Inc.

335**CC-355 E****● Design Issues for Clinical Trials—Contributed**

ENAR, Biometrics Section

Chair(s): Jill Goldschneider, Insightful Corporation

- 2:05 p.m. **Correcting for Misrandomization in a Peer-Teaching Intervention Trial**—❖ Dirk Moore, University of Medicine and Dentistry of New Jersey; Weichung J. Shih, University of Medicine and Dentistry of New Jersey; Thomas Kearney, University of Medicine and Dentistry of New Jersey
- 2:20 p.m. **Evaluation of Surrogate Biomarker in a Randomized Clinical Trial**—❖ Long-Long Gao, GlaxoSmithKline; Marshall Joffe, University of Pennsylvania; Xiwu Lin, GlaxoSmithKline
- 2:35 p.m. **Proportion of Treatment Effect Explained by a Continuous Surrogate Marker**—❖ Jie Huang, Novartis Pharmaceuticals; Bin Huang, Cincinnati Children's Hospital Medical Center
- 2:50 p.m. **Inference of Noncentrality Parameter of a Truncated Chi-Squared Distribution, with Application to Flexible Two-Stage Designs**—❖ Qizhai Li, National Institutes of Health; Kai Yu, National Institutes of Health
- 3:05 p.m. **An Internal Pilot Study with Interim Analysis for Gaussian Linear Models**—❖ John Kairalla, The University of North Carolina at Chapel Hill; Keith E. Muller, University of Florida;

Christopher S. Coffey, The University of Alabama at Birmingham

- 3:20 p.m. **Estimation of Correlated Response Rates in Clinical Trials**—❖ Myron Chang, University of Florida

- 3:35 p.m. **Test Size for Two-Stage and One-Stage Analyses of Cluster Samples of Unequal Size**—❖ Jacqueline Johnson, The University of North Carolina at Chapel Hill; Diane Catellier, The University of North Carolina at Chapel Hill; Keith E. Muller, University of Florida

336**CC-250 B****❖ MLE and Related Topics—Contributed**

IMS, Section on Nonparametric Statistics

Chair(s): Jing Qiu, University of Missouri-Columbia

- 2:05 p.m. **Testing Homogeneity Variances for Non-Normal Models Using Entropy**—❖ Solomon W. Harrar, University of Montana; Arjun K. Gupta, Bowling Green State University; Leandro Pardo, Complutense University of Madrid
- 2:20 p.m. **Bootstrapping the Grenander Estimator**—❖ Bodhisattva Sen, University of Michigan
- 2:35 p.m. **Estimation of Tail Probability via the Maximum Lq-Likelihood Method**—❖ Davide Ferrari, The University of Minnesota
- 2:50 p.m. **Minimax-Bias L-Estimators of Scale**—❖ Daniela Szatmari-Voicu, University of Texas at El Paso
- 3:05 p.m. **Asymptotic Properties of MLEs for Extended Generalized Log-Logistic Families of Lifetime Distributions**—❖ James U. Gleanon, University of North Florida; M. Mahbubur Rahman, University of North Florida
- 3:20 p.m. **Profile Likelihood-Based Confidence Intervals in Repeated Categorical Data**—❖ Esa I. Uusipaikka, University of Turku
- 3:35 p.m. **Maximum Likelihood Estimation of the Dispersion Parameter of Negative Multinomial Distribution**—❖ Soumi Lahiri, GlaxoSmithKline

337

● Bayesian Approaches to Sample Size Determination and Experimental Design—Contributed

Section on Bayesian Statistical Science

Chair(s): Rongwei (Rochelle) Fu, Oregon Health & Science University

- 2:05 p.m. **Survey of Bayesian Sample Size Calculation—**
❖ Susan Alber, The University of Texas M. D. Anderson Cancer Center; J. Jack Lee, The University of Texas M. D. Anderson Cancer Center
- 2:20 p.m. **Bayesian Power and Sample Size Calculations for Multicenter Clinical Trials with Binary Responses—**❖ Emine O. Bayman, The University of Iowa/ULudag University; Kathryn Chaloner, The University of Iowa; Mary K. Cowles, The University of Iowa
- 2:35 p.m. **Bayesian Sample Size Determination for the Misclassified Binary Response Variable with One Error-Free Covariate—**❖ Dunlei Cheng, Baylor University; James Stamey, Baylor University
- 2:50 p.m. **Bayesian Sample Size Calculation for Counted Data with Excess Zeroes—**❖ Chunyao Feng, Amgen Inc.; John W. Seaman, Jr., Baylor University; James Stamey, Baylor University
- 3:05 p.m. **Bayesian Up and Down: Combining the Best of Both Worlds—**❖ Assaf Oron, University of Washington; Peter D. Hoff, University of Washington
- 3:20 p.m. **How Many Images Are Enough? Bayesian and Non-Bayesian Approaches to Sample Size Determination—**❖ Junheng Ma, Case Western Reserve University; Jiayang Sun, Case Western Reserve University; Joe Sedransk, Case Western Reserve University
- 3:35 p.m. **Kullback-Leibler Divergence for Design and Model Selection—**❖ Chenpin Wang, University of Texas Health Science Center San Antonio

338

⊛ Resampling Methods and Confidence Intervals—Contributed

Section on Nonparametric Statistics

Chair(s): Michael Sherman, Texas A&M University

- 2:05 p.m. **Bootstrap Confidence Intervals in Nonparametric Regression with Built-In Bias Correction—**
❖ McMurry Timothy, DePaul University; Dimitris Politis, University of California, San Diego

CC-155 E

- 2:20 p.m. **Tapered Empirical Likelihood Methods—**❖ Daniel Nordman, Iowa State University
- 2:35 p.m. **An Empirical Likelihood-Based Approach To Estimate Covariance Matrices with Structural Zeroes—**❖ Sanjay Chaudhuri, National University of Singapore
- 2:50 p.m. **Conditional Empirical Likelihood Inference in Presence of Nuisance Parameters—**❖ Mi-Ok Kim, Cincinnati Children's Hospital Medical Center
- 3:05 p.m. **Strong Approximations for Resample Quantile Processes and Application to ROC Methodology—**
❖ Jiezhun Gu, North Carolina State University; Subhashis Ghoshal, North Carolina State University
- 3:20 p.m. **Observed Confidence Levels for Modes of Smooth Densities—**❖ Alan Polansky, Northern Illinois University
- 3:35 p.m. **Semiparametric Sequential D-Optimal Design—**❖ Joseph Warfield, The Johns Hopkins University; Anindya Roy, University of Maryland, Baltimore County

339

Financial Risk Analysis: Theory, Methods, and Applications—Contributed

Section on Risk Analysis, Business and Economics Statistics Section

Chair(s): Wai Chan, Exponent, Inc.

- 2:05 p.m. **Extreme Value Theorem and Its Applications—**
❖ Yan Li, The Pennsylvania State University
- 2:20 p.m. **A New Estimator for the Extremal Index Based on Scaling and Resampling—**❖ Kam Hamidieh, University of Michigan; Stilian Stoev, University of Michigan; George Michailidis, The University of Michigan
- 2:35 p.m. **Tail Expansions for the Distribution of the Maxima of Random Walks with Negative Drift and Regularly Varying Increments—**❖ Chenhua Zhang, University of Georgia; Philippe Barbe, CNRS, France; William P. McCormick, University of Georgia
- 2:50 p.m. **A General Rule To Average a Set of Frequency Statistics—**❖ Joseph Kahan, FM Global
- 3:05 p.m. **Bootstrapping the Expected Shortfall—**❖ Shuxia Sun, Wright State University
- 3:20 p.m. **Using Data Mining Tools and GIS (Geographic Information Systems) in Hot-Spot Detection—**
❖ Wei-hong Wang, The College of New Jersey; Ben Liu, William Paterson University

CC-250 C

CC-251 C

- 3:35 p.m. **Estimation for Non-negative, Levy-Driven Ornstein-Uhlenbeck Processes**—❖ Yu Yang, Colorado State University; Peter J. Brockwell, Colorado State University; Richard A. Davis, Colorado State University

340**CC-251 B****● Clustering and Classification—Contributed**

Section on Statistical Computing, Section on Statistical Graphics, IMS

Chair(s): James E. Gentle, George Mason University

- 2:05 p.m. **Clustering the Short Stories of Edgar Allan Poe Using Galois Lattices**—❖ Roger Bilisoly, Central Connecticut State University
- 2:20 p.m. **Smoothing the Dissimilarities Among Binary Data for Cluster Analysis**—❖ David Hitchcock, University of South Carolina; Zhimin Chen, University of South Carolina
- 2:35 p.m. **Measuring the Similarity between Spatial Clusters**—❖ Xinxin Bai, IBM China Research Laboratory; Wen Jun Yin, IBM China Research Laboratory; Jin Dong, IBM China Research Laboratory
- 2:50 p.m. **Uniformity Testing in High Dimensions**—❖ Adam Petrie, Rensselaer Polytechnic Institute
- 3:05 p.m. **Presence versus Significance: How Significant Are Your Clusters?**—❖ Rebecca Nugent, Carnegie Mellon University; Werner Stuetzle, University of Washington
- 3:20 p.m. **Clustering Gene Expressions in the Presence of Scatter**—❖ Ivan Ramler, Iowa State University; Ranjan Maitra, Iowa State University
- 3:35 p.m. **A New Clustering Algorithm Based on Self-Updating Process**—❖ Ting-Li Chen, Academia Sinica; Shang-Ying Shiu, Academia Sinica

341**CC-255 C****● Adjustment Methods for Survey Nonresponse and Noncoverage—Contributed**

Section on Survey Research Methods, Social Statistics Section

Chair(s): Kenneth Portier, American Cancer Society

- 2:05 p.m. **Nonresponse Adjustment for Multipurpose Surveys**—❖ Hee-Choon Shin, NORC at the University of Chicago
- 2:20 p.m. **Comparison of Methods to Adjust Further for Nonresponse Due to Missing Lab Data in NHANES**—❖ Maya Sternberg, Centers for Disease Control and Prevention; Alula Hadgu,

2:35 p.m.

2:50 p.m.

3:05 p.m.

3:20 p.m.

3:35 p.m.

- Centers for Disease Control and Prevention
- Post-Katrina New Orleans Adjustment to Control Totals for the National Immunization Survey**—❖ Steven Pedlow, NORC at the University of Chicago; Zhen Zhao, Centers for Disease Control and Prevention
- Diagnostic Process to Assess the Effects of Weighting BRFSS Data**—Henry Roberts, Centers for Disease Control and Prevention; Robert Woldman, North Carolina Department of Health and Human Services; Elizabeth Hughes, Northrup Gruman Inc; Ruth Jiles, Centers for Disease Control and Prevention
- Minimizing Conditional Local Bias for Health Estimates from the Behavioral Risk Factor Surveillance System for U.S. Counties Contiguous to the United States-Mexico Border**—❖ Joe Fred Gonzalez, Jr., Centers for Disease Control and Prevention; Machell Town, Centers for Disease Control and Prevention; Jay H. Kim, National Center for Health Statistics
- Evaluation of the Current Weighting Methodology for the Behavioral Risk Factor Surveillance System (BRFSS) and Alternatives for Improvement**—❖ Mansour Fahimi, RTI International; Darryl Creel, RTI International; Paul S. Levy, RTI International; Michael Link, Centers for Disease Control and Prevention
- Diagnostic Process to Assess the Effects of Truncating Extreme BRFSS Sampling Weights**—❖ Henry Roberts, Centers for Disease Control and Prevention; Elizabeth Hughes, Northrup Gruman Inc; Robert Woldman, North Carolina Department of Health and Human Services; Ruth Jiles, Centers for Disease Control and Prevention

342**CC-255 A****● Complex Survey Data Analysis Software GIS—Contributed**

Section on Survey Research Methods, Section on Statistical Computing, Section on Statistical Consulting, Section on Statistical Graphics

Chair(s): Ronaldo Iachan, Macro International

- 2:05 p.m. **Identification of Influential Observations for Regression Using Complex Survey Data**—❖ Jianzhu Li, University of Maryland; Richard Valliant, University of Maryland

- 2:20 p.m. **Goodness-of-Fit Tests for Logistic Regression with Complex Survey Data**—◆ Amang S. Sukasih, Mathematica Policy Research, Inc.; Donsig Jang, Mathematica Policy Research, Inc.; Haixia Xu, Mathematica Policy Research, Inc.
- 2:35 p.m. **Longitudinal Data Analysis Using SUDAAN**—◆ Darryl Creel, RTI International
- 2:50 p.m. **Comparison of the Five Test Statistics Currently Available in the SUDAAN Modeling Procedures**—◆ G. Gordon Brown, RTI International
- 3:05 p.m. **Subpopulation Analysis of Survey Data: Statistical Approaches and Software Options**—◆ Brady West, University of Michigan; Steven Heeringa, Institute for Social Research; Pat Berglund, University of Michigan
- 3:20 p.m. **GIS Data Collection for Longitudinal Surveys**—◆ Sarah M. Nusser, Iowa State University
- 3:35 p.m. **Economic Evaluation of Road Improvements Using GIS and Propensity Score Matching: Case Example from the Republic of Georgia**—◆ John Felkner, NORC at the University of Chicago; Fritz Scheuren, NORC at the University of Chicago; Celeste Tarricone, Millennium Challenge Corporation; Mamuka Shatirishvili, Millennium Challenge Georgia; Temur Paksashvili, Republic of Georgia

Contributed Poster Presentations 2:00 p.m.–3:50 p.m.

343 CC-Exhibit Hall D Contributed Poster Presentations—Contributed

Social Statistics Section, Section on Statistical Computing, Section on Statistical Graphics, Section on Statistics in Sports, Section on Survey Research Methods, Section on Quality and Productivity, Section on Risk Analysis, Section on Statistics and the Environment, Section on Statisticians in Defense and National Security, Business and Economics Statistics Section

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

Applications and case studies

- 51 **Modeling Enrollment Growth at California State University, East Bay**—◆ Barbara Warsavage, CSUEB
- 52 **Model-Based Clustering Analysis: An Application to Food and Nutrition Data**—◆ Jingjing Chen, Student
- 53 **Geospatial Modeling for Water Chemistry in a Stream Network**—◆ Stephanie Fitchett, Florida Atlantic University

Biometrics, bioinformatics, computational biology

- 54 **Predicting Survival from Microarray Data: A Comparative Study**—Hege Marie Boevelstad, University of Oslo; ◆ Staale Nygaard, University of Oslo

Categorical, multivariate analysis

- 55 **Stalactite Plot for Outlier Detection in the Presence of a Computationally Singular Covariance Matrix**—◆ Jeremy Nadolski, Benedictine University; Pablo Marquez, Benedictine University; Lee Ann Smith, Benedictine University
- 56 **Reckless or Responsible: A Multivariate Statistical Analysis of Consumer Spending**—◆ Shannon Grant, SUMSRI; Emilola Abayomi, SUMSRI

Computational statistics, numerical methods, simulation

- 57 **SASweave: Literate Programming Using SAS**—◆ Russell Lenth, The University of Iowa; Søren Højsgaard, Aarhus University
- 58 **Maximum Likelihood Estimation Using Iterative Importance Sampling**—◆ Fassil Nebebe, Concordia University; Tak Mak, Concordia University
- 59 **The Power of Linkage Analysis of a Quantitative Disease Endophenotype**—◆ Zhuying Huang, Stony Brook University; Nancy Mendell, State University of New York at Stony Brook

Data mining and knowledge discovery, machine learning

- 60 **Development of Nearest-Neighbor Classifiers Identifying Dermal Sensitizers Based on a Local Lymph Node Assay Database**—◆ Shengqiao Li, Centers for Disease Control and Prevention; Adam Fedorowicz, Centers for Disease Control and Prevention
- 61 **Methods for K-Models Clustering**—◆ Li Li, George Mason University; James E. Gentle, George Mason University

Environmetrics, ecology, agriculture, wildlife management

- 62 **A New Ecological Model for Insect Population Size with Local Collapse**—◆ James Matis, Texas A&M University; Thomas Kiffe, Texas A&M University; Timothy Matis, Texas Tech University; Gerald Michels, Texas A&M University
- 63 **Assessment of Plant Communities Exposed to Fugitive Dust Along a Mine Transportation Corridor in Alaska**—◆ Melanie Edwards, Exponent, Inc.; Elizabeth Maier, Exponent, Inc.; Dawn Reeder, Rare Earth Science; Scott S. Shock, Exponent, Inc.; Nicholas Gard, Exponent, Inc.
- 64 **Is There a Weekend Effect in Diurnal Temperature Range?**—◆ Madhuri S. Mulekar, University of South Alabama; Sytske Kimball, University of South Alabama

Experimental design

- 65 **Choice of Randomized Design in Large-Scale Education Experiments**—❖ Brenda Jenney, Arizona State University; Sharon L. Lohr, Arizona State University

Graphics, visualization

- 66 **Matrix Plots in Support of Visualization of Matrix Characteristics**—❖ Ferry Butar Butar, Sam Houston State University; Wathurawa A. Bandulasiri, Sam Houston State University; Melinda M. Holt, Sam Houston State University; Cecil Hallum, Sam Houston State University

Incomplete data analysis, imputation methods

- 67 **Statistical Inference in the Presence of Panel Segmentation in Ranking Data**—❖ Lin Xie, Kansas State University; Paul I. Nelson, Kansas State University
- 68 **Generalization of the Paired T-Test for the Missing Values Case**—❖ Sophie Desjardins, University of Québec at Montréal; Alain Desgagne, University of Québec at Montréal; Pierre Lafaye de Micheaux, Université Pierre-Mendes France; Benoit Liquet, Université Pierre-Mendes France

Linear models, GLMs, parametric methods

- 69 **Use of Beta Regression To Model Adherence to HIV Medication**—❖ Che Smith, The University of North Carolina at Chapel Hill; Yin Yin, GlaxoSmithKline; Sharon Murray, GlaxoSmithKline; Steven Kathman, GlaxoSmithKline
- 70 **A Modified Bonferroni Procedure for Multiple Tests**—❖ Daniel Mundfrom, University of Northern Colorado; Michelle Roozeboom, University of Northern Colorado; Jamis Perrett, University of Northern Colorado

Pattern recognition, computer vision, shape analysis, signal processing

- 71 **Multivariate Statistical Methods Applied to Digital Photo Processing in Support of Object Detection**—❖ Huixing He, Sam Houston State University; Cecil Hallum, Sam Houston State University

Probability, stochastic processes

- 72 **A Method for Estimating Intensity of a Poisson Process**—❖ Chih-Hsiang Ho, University of Nevada, Las Vegas; Sandhya Gunti, University of Nevada, Las Vegas; Heng-Wei Cheng, University of Nevada, Las Vegas

QC, operation research, risk assessment

- 73 **Monitoring Variation in a Multivariate Process with Sample Size Smaller Than the Dimension**—❖ John Young, McNeese State University; Robert L. Mason, Southwest Research Institute; Youn-Min Chou, University of Texas at San Antonio

- 74 **Development of New Capability Indices for Multivariate Manufacturing Processes**—Jen-Nan Pan, National Cheng Kung University; ❖ Chun-Yi Lee, National Cheng Kung University

Sampling and survey methodology

- 75 **Software Alternatives for Variance Estimation in the Analysis of Complex Sample Surveys: A Comparison of SAS Survey Procedures, SUDAAN, and AM**—❖ Bethany Bell-Ellison, University of South Florida; Jeffrey Kromrey, University of South Florida
- 76 **Performance of First-Order Weighted Random Effects Model Estimators Under Complex Sampling Designs**—❖ Yue Jia, Educational Testing Service; S. Lynne Stokes, Southern Methodist University; Ian Harris, Southern Methodist University
- 77 **Alternative Methods to Compensate for Provider Nonresponse in the National Immunization Survey**—❖ Phillip Smith, Centers for Disease Control and Prevention; Benjamin Skalland, NORC at the University of Chicago; Robert Montgomery, NORC at the University of Chicago; Sadeq Chowdhury, NORC at the University of Chicago
- 78 **Extensions of a Matrix Approach for Comparing Estimate Precision of a Population Total Under a Many-to-Many Frame Structure**—Martin Levy, University of Cincinnati; ❖ ZhiYuan Dong, University of Cincinnati
- 79 **Review of NHIS Public-Design Structures**—❖ Van Parsons, National Center for Health Statistics; Chris Moriarity, National Center for Health Statistics

Spatial statistics, spatio-temporal modeling

- 80 **Estimation of Exposure Point Concentrations for Probabilistic Risk Assessment Using a Three-Dimensional Estimation Technique**—❖ James Gleason, Trihydro Corporation; Heidi Bowen-Morris, Trihydro Corporation
- 81 **Spatiotemporal Bayesian Maximum Entropy Modeling of Hydrogen Sulfide Concentrations Using Data Collected at Different Observation Time Scales Near Swine Operations**—❖ William Allshouse, The University of North Carolina at Chapel Hill; Marc Serre, The University of North Carolina at Chapel Hill; Devon Hall, Rural Empowerment Association for Community Help; Katherine Mills, The University of North Carolina at Chapel Hill; Steve Wing, The University of North Carolina at Chapel Hill

Sports, art, entertainment

- 82 **A Critical Evaluation of 'Moneyball'**—❖ Mitchell Watnik, California State University, East Bay

- 83 **Stochastic Modeling of Sports Data**—❖ Charles N. Lowe, Marshall University; Alfred A. Akinsete, Marshall University
- 84 **You (Should Be) Out of Here! Off-the-Field Factors Influencing National Baseball Hall of Fame Selection**—❖ John Rasp, Stetson University; Nathan Crowder, Stetson University
- 85 **Coors Field: Pitchers Graveyard?**—❖ Jay Schaffer, University of Northern Colorado; Raj Chandran, University of Northern Colorado
- 86 **An Analysis of Judges' Inconsistency in the Athens 2004 Olympics Artistic Gymnastics Events Using the Multiplicative Interaction Model**—❖ Wijith Munasinghe, Kansas State University; Dallas Johnson, Kansas State University
- 87 **Assessing Ratings Methods for College Hockey Teams**—❖ Robin Lock, St. Lawrence University; Julia Palmateer, St. Lawrence University
- 88 **Measuring Player Contribution in the NBA**—❖ David Lewin, Macalester College; Vittorio Addona, Macalester College

Statistical consulting

- 89 **Statistical Application in Law: Empirical Investigation on Suspected Drunk Drivers' Data in New Jersey**—❖ Ayako Kambara,

Statistical education, teaching, and training

- 90 **Education by Nation: A Multivariate Statistical Analysis**—❖ Anthony Franklin, SUMSRI; Ashley Brooks, SUMSRI

Time series/wavelet analysis

- 91 **Multiple Signal Extraction in Seismic Array Data**—❖ Joshua Kerr, California State University, East Bay; Wolfgang Polonik, University of California, Davis
- 92 **Smoothed Moments Variance Estimator for X-11 Seasonal Adjustment**—❖ Daniell Toth, Bureau of Labor Statistics; Stuart Scott, Bureau of Labor Statistics

Transportation statistics

- 93 **A Market Segmentation Analysis of Multivariate Travel Survey Data**—Shuang Liu, University of California, Davis; ❖ Peng Wu, University of California, Davis

Invited Sessions 4:00 p.m.–5:50 p.m.

344

CC-Ballroom B

Wald Lecture I—Invited

IMS, General Methodology, Section on Bayesian Statistical Science

Organizer(s): Tony Cai, University of Pennsylvania

Chair(s): Robert L. Wolpert, Duke University

4:05 p.m. **A Review of Surprises Encountered in Bayesian Model Selection**—❖ James Berger, Duke University

5:30 p.m. **Floor Discussion**

345

CC-Ballrooms E-J

Deming Lecture—Invited

Deming Lectureship Committee, ASA, IMS, ENAR, SSC, WNAR

Organizer(s): Stephen B. Cohen, Agency for Healthcare Research and Quality

Chair(s): Stephen B. Cohen, Agency for Healthcare Research and Quality

4:05 p.m. **A Modern Framework for Enterprise Excellence**—❖ Douglas C. Montgomery, Arizona State University

5:30 p.m. **Floor Discussion**

Invited Sessions 8:00 p.m.–9:30 p.m.

346

CC-Ballrooms E-J

ASA Presidential Address and Awards—Invited

ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Mary Ellen Bock, Purdue University

Chair(s): Sallie Keller-McNulty, Rice University

8:00 p.m. **Presentation of Awards**—❖ Sallie Keller-McNulty, Rice University

8:30 p.m. **Statistics: Harnessing the Power of Information**—❖ Mary Ellen Bock, Purdue University

9:00 p.m. **Presentation of Founders Awards and New ASA Fellows**—❖ Sallie Keller-McNulty, Rice University

WEDNESDAY, AUGUST 1

Tours**TR10 Antelope Island and the Great Salt Lake**

8:00 a.m.–12:00 p.m. CC-South Foyer (200 South Street)

TR11 Kennecott Copper Mine and Great Salt Lake

8:00 a.m.–12:00 p.m. CC-South Foyer (200 South Street)

TR12 Utah Olympic Park, Park City Main Street

1:00 p.m.–5:00 p.m. CC-South Foyer (200 South Street)

**Committee/Business Meetings
& Other Activities**

7:00 a.m.–8:30 a.m.

GA-Vienna

Committee of Representatives to AAAS Meeting*Chair(s): Michael P. Cohen, Statistical Consultant*

7:00 a.m.–8:30 a.m.

Off Property

Friends and Alumni of Brigham Young University Open House/Breakfast*Organizer(s): Del Scott, Brigham Young University*

7:00 a.m.–8:30 a.m.

GA-Milano

Caucus for Women in Statistics Breakfast Roundtable Discussions*Organizer(s): Tena Katsaounis, The Ohio State University*

7:00 a.m.–8:30 a.m.

GA-Ambassador

Committee on Career Development Meeting (closed)*Chair(s): Janice Lent, Energy Information Administration*

7:00 a.m.–8:30 a.m.

GA-Bagatelle

Committee on Privacy and Confidentiality Meeting*Chair(s): Alvan Zarate, National Center for Health Statistics*

7:00 a.m.–8:30 a.m.

GA-Embassy

Committee on Archives and Historic Materials Meeting (closed)*Chair(s): Carol J. Lancaster, Medical University of South Carolina*

7:00 a.m.–6:00 p.m.

CC-252 A, CC-252 B

Speaker Work Rooms

7:00 a.m.–9:00 p.m.

CC-South Foyer

Cyber Center

7:30 a.m.–4:30 p.m.

CC-South Foyer

JSM Main Registration and ASA Membership/Special Assistance Desk

8:00 a.m.–9:00 a.m.

GA-Sussex

Noether Award Committee Business Meeting (closed)*Chair(s): James Higgins, Kansas State University*

8:00 a.m.–10:00 a.m.

GA-Fontainebleau

Section on Statistical Education Executive Committee Meeting (closed)*Chair(s): Jessica Utts, University of California, Davis*

8:00 a.m.–2:00 p.m.

CC-Exhibit Hall D

Exhibitor Lounge

8:00 a.m.–4:30 p.m.

CC-Exhibit Hall C

Career Placement Service

8:00 a.m.–6:00 p.m.

CC-Main Lobby, Level 2

Salt Lake City Visitors Information Center

8:30 a.m.–10:30 a.m.

CC-Kenneth Knight Board Room

Committee on Outreach Education Meeting (closed)*Chair(s): Wendy Martinez, Office of Naval Research*

9:00 a.m.–11:00 a.m.

GA-Audubon

Council of Sections Publication and Newsletter Editors Meeting (closed)

9:00 a.m.–2:00 p.m.

CC-Exhibit Hall D

ASA Booth #101

9:00 a.m.–2:00 p.m.

CC-Exhibit Hall D

EXPO 2007