THURSDAY, AUGUST 3

Committee/Business Meetings & Other Activities

6:00 pm–7:00 pm — S-Douglas Room
The ASA Management Review Committee (closed)
Chair(s): Sallie Keller-McNulty, Rice University

7:00 pm–9:00 pm — S-Douglas Room
The ASA Board of Directors Executive Committee Working Dinner (closed)
Chair(s): Sallie Keller-McNulty, Rice University

FRIDAY, AUGUST 4

Committee/Business Meetings & Other Activities

8:30 am–10:00 am — S-Douglas Room
The ASA Planning Committee (closed)
Chair(s): Sallie Keller-McNulty, Rice University

10:45 am–5:00 pm — S-Aspen Room
The ASA Board of Directors Meeting (closed)
Chair(s): Sallie Keller-McNulty, Rice University

12:00 pm–1:30 pm — S-Cedar Room
The ASA Board of Directors Lunch (closed)
Chair(s): Sallie Keller-McNulty, Rice University

6:00 pm–7:00 pm — S-Governors Suite
JSM Staff and ASA Board of Directors Reception (closed)
Chair(s): William Smith, American Statistical Association; Sallie Keller-McNulty, Rice University

SATURDAY, AUGUST 5

Committee/Business Meetings & Other Activities

7:00 am–6:00 pm — CC-Level 4 South Lobby
ASA Membership/Special Assistance Desk

7:00 am–6:00 pm — CC-Level 4 South Lobby
JSM Main Registration

7:00 am–6:00 pm — CC-507
Speaker Work Room

7:00 am–6:00 pm — CC-Level 4 South Lobby
Cyber Center

7:00 am–6:00 pm — CC-508
Speaker Work Room

8:00 am–5:00 pm — CC-Exhibit Hall 4A
Exhibitor Move In and Lounge

8:30 am–5:30 pm — S-Aspen Room
The ASA Board of Directors Meeting (closed)
Chair(s): Sallie Keller-McNulty, Rice University

9:00 am–10:30 am — S-Spruce Room
ASA BOD-2006 Strategic Activities Review Subcommittee (closed)
Chair(s): Nathaniel Schenker, National Center for Health Statistics

9:00 am–10:30 am — S-Admiral
ASA BOD-2006 Dues Subcommittee (closed)
Chair(s): Daniel Kasprzyk, Mathematica Policy Research, Inc.

9:00 am–5:00 pm — CC-Level 1
Citywide Concierge Center

9:00 am–5:00 pm — CC-Exhibit Hall 4B
Career Placement Service (Electronic Registration Only)

11:30 am–12:30 pm — S-Willow A
Association of GCRC Statisticians Lunch (closed)
Organizer(s): Robert Oster, University of Alabama at Birmingham

12:00 pm–5:00 pm   CC-Level 4 South Lobby
ASA Marketplace

12:00 pm–1:30 pm   S-Cedar Room
The ASA Board of Directors Lunch (closed)

12:30 pm–5:30 pm   S-Willow B
Association of GCRC Statisticians Meeting (closed)
Organizer(s): Robert Oster, University of Alabama at Birmingham

3:00 pm–6:00 pm   S-Spruce Room
ICES III Program Committee Meeting (closed)
Chair(s): Eva Elvers, Statistics Sweden

7:00 pm–8:30 pm   S-Cedar Room
National Numeracy Network Board Meeting
Organizer(s): Bernard Madison, University of Arkansas

Continuing Education (Fee Events)

CE_01C   CC-310
8:30 am–5:00 pm
Categorical Data Analysis (two-day course)
The ASA

Instructor(s): Gary Koch, The University of North Carolina at Chapel Hill, Todd Schwartz, The University of North Carolina at Chapel Hill, Rebekkah Dann, The University of North Carolina at Chapel Hill

CE_02C   CC-308
8:30 am–5:00 pm
Small-Area Estimation
The ASA, Section on Survey Research Methods
Instructor(s): Partha Lahiri, University of Maryland

CE_03C   CC-307
8:30 am–5:00 pm
Modern Approaches to Nonstationary Models of Spatial and Space-Time Processes with Air Quality Applications
The ASA
Instructor(s): Peter Guttorp, University of Washington; Paul D. Sampson, University of Washington

CE_04C   CC-306
8:30 am–5:00 pm
Bayesian Inference
The ASA, Section on Bayesian Statistical Science

Instructor(s): Bruno Sanso, University of California, Santa Cruz

CE_05C   CC-304
8:30 am–5:00 pm
Practical Data Mining
The ASA
Instructor(s): Richard De Veaux, Williams College

CE_06C   CC-303
8:30 am–5:00 pm
Applied Longitudinal Analysis
The ASA, Biometrics Section
Instructor(s): Garrett Fitzmaurice, Harvard University

SUNDAY, AUGUST 6

Tours

9:30 am–1:30 pm   CC-Convention Plaza
TR01 - Northwest Winery Tour

1:00 pm–4:00 pm   CC-Convention Plaza
TR02 - Seattle City Highlights Tour

Committee/Business Meetings & Other Activities

7:00 am–8:00 am   S-Willow A
Association of GCRC Statisticians Breakfast (closed)
Organizer(s): Robert Oster, University of Alabama at Birmingham

7:00 am–10:00 pm   CC-Level 4 South Lobby
Cyber Center

7:00 am–6:00 pm   CC-508
Speaker Work Room

7:00 am–6:00 pm   CC-507
Speaker Work Room

7:00 am–8:30 pm   CC-Level 4 South Lobby
JSM Main Registration

7:00 am–8:30 pm   CC-Level 4 South Lobby
ASA Membership/Special Assistance Desk

Sunday

7:30 am–10:30 am — S-Douglas Room
Committee on Women in Statistics (closed)
Chair(s): Teri Peterson, Idaho State University

7:30 am–12:30 pm — H-Blewett Suite
Committee on Publications Meeting (closed)
Chair(s): William Q. Meeker, Jr., Iowa State University

8:00 am–12:00 pm — CC-302
ICES III Organizing Committee Meeting (closed)
Chair(s): Howard Hogan, U.S. Census Bureau

8:00 am–12:00 pm — S-Willow B
Association of GCRC Statisticians Meeting (closed)
Organizer(s): Robert Oster, University of Alabama at Birmingham

8:00 am–10:00 am — S-Juniper
Business Statistics Focus Group (closed)
Organizer(s): Dona Kenly, Addison Wesley

8:00 am–6:00 pm — CC-Exhibit Hall 4A
Exhibitor Lounge

8:00 am–11:00 am — CC-Exhibit Hall 4A
Exhibitor Move In

9:00 am–5:00 pm — CC-Level 4 South Lobby
ASA Marketplace

9:00 am–5:00 pm — CC-Level 1
Citywide Concierge Center

9:00 am–1:00 pm — CC-301
Advisory Committee on Teacher Enhancement Annual Meeting (closed)
Chair(s): Robert Gould, University of California, Los Angeles

9:00 am–12:00 pm — S-Cedar Room
Council of Sections Governing Board Meeting (closed)
Chair(s): John E. Boyer, Kansas State University

11:00 am–2:00 pm — CC-4C-1
NISS/SAMSI Affiliates Meeting (closed)
Organizer(s): Alan Karr, National Institute of Statistical Sciences

11:30 am–1:00 pm — S-Douglas Room
Committee on Committees Meeting (closed)
Chair(s): Darryl Downing, GlaxoSmithKline

12:00 pm–2:00 pm — S-Juniper

Journal of Statistics Education Editorial Board (closed)
Chair(s): W. Robert Stephenson, Iowa State University

12:00 pm–1:00 pm — S-Willow A
Association of GCRC Statisticians Lunch (closed)
Organizer(s): Robert Oster, University of Alabama at Birmingham

12:00 pm–1:30 pm — H-Portland
Amgen, Inc.(closed)
Organizer(s): Chander Varma, Amgen Inc.

12:00 pm–2:00 pm — S-Aspen Room
Statistica Sinica Board Meeting (closed)
Organizer(s): Michelle Liou, Academia Sinica; Xiao-Li Meng, Harvard University

12:00 pm–1:30 pm — CC-601
Friends of the Indian Statistical Institute Business Meeting
Organizer(s): Nitis Mukhopadhyay, University of Connecticut

1:00 pm–6:00 pm — CC-Exhibit Hall 4A
EXPO 2006

1:00 pm–6:00 pm — CC-Exhibit Hall 4A
ASA Communities Booth #101

1:00 pm–6:00 pm — CC-Exhibit Hall 4B
Career Placement Service (Full Placement Service Open)

2:00 pm–4:30 pm — S-Metropolitan Ballroom A
Council of Sections Annual Business Meeting (closed)
Chair(s): John E. Boyer, Kansas State University

4:00 pm–5:30 pm — S-Douglas Room
2006/2007 Committee Chairs Meeting (closed)
Chair(s): Darryl Downing, GlaxoSmithKline

4:30 pm–8:00 pm — H-Chatham
ENAR Executive Committee Meeting (by invitation only)
Organizer(s): Kathy Hoskins, ENAR

5:00 pm–6:30 pm — S-Cedar Room
Council of Section New Officer Orientation Meeting (closed)
Chair(s): S. Lynne Stokes, Southern Methodist University

5:00 pm–6:30 pm   CC-305
Cancer Center Biostatistics Directors Annual Meeting
Organizer(s): Terry Hyslop, Thomas Jefferson University

5:00 pm–7:30 pm   H-Blewett Suite
**International Chinese Statistical Association (ICSA)
Board Meeting**
Organizer(s): Ivan Chan, Merck & Co., Inc.

5:30 pm–7:00 pm   CC-302
**Committee on Scientific Freedom and Human Rights
Business Meeting**
Chair(s): Susan Hinkins, NORC

6:00 pm–7:30 pm   CC-4C-2
JSM First-time Attendee Orientation and Reception
Chair(s): Mary W. Gray, American University

6:00 pm–7:30 pm   CC-612
ASA Open Meeting (all welcome)
Chair(s): Sallie Keller-McNulty, Rice University

6:00 pm–7:30 pm   S-Aspen Room
Christian Statisticians' Informal Discussion
Organizer(s): Robert W. Mee, University of Tennessee

6:30 pm–9:30 pm   H-Douglas Boardroom & Foyer
**Biometrics Section Executive Committee Meeting
(closed)**
*Chair(s): Karen Bandeen-Roche, Johns Hopkins Bloomberg School of
Public Health*

6:30 pm–8:30 pm   S-Juniper
**Section on Statistical Consulting Executive
Committee Meeting (closed)**
Chair(s): Philip Dixon, Iowa State University

6:30 pm–8:00 pm   CC-4C-3
Purdue University Alumni and Friends Reception
Organizer(s): Dana Neary, Director of Alumni Relations

7:00 pm–9:00 pm   CC-615
Isolated Statisticians Meeting
Organizer(s): Ann Cannon, Cornell College

7:00 pm–8:00 pm   CC-4C-1

ACCE Presenters' Social (closed)
Chair(s): Charles Tan, Merck & Co., Inc.

8:00 pm–10:30 pm   CC-Ballroom 6ABC
JSM Opening Mixer (included in registration fee)

Continuing Education (Fee Events)

CE_01C   CC-310
8:30 am–5:00 pm
Categorical Data Analysis (continuation of two-day course)
The ASA
*Instructor(s): Gary Koch, The University of North Carolina at Chapel
Hill, Todd Schwartz, The University of North Carolina at Chapel Hill,
Rebekkah Dann, The University of North Carolina at Chapel Hill*

CE_07C   CC-309
8:30 am–5:00 pm
Text Mining
The ASA, Section on Statistical Computing
*Instructor(s): David Madigan, Rutgers University; David D. Lewis, David
D. Lewis Consulting LLC*

CE_08C   CC-308
8:30 am–5:00 am
The Psychology of Survey Response
The ASA, Section on Survey Research Methods
Instructor(s): Roger Tourangeau, University of Maryland

CE_09C   CC-307
8:30 am–5:00 pm
**Statistical Methods for the Confirmatory Analysis of
Equivalence/Noninferiority Studies**
The ASA
Instructor(s): Stefan Wellek, University of Heidelberg

CE_10C   CC-306
8:30 am–5:00 pm
**Computational Statistics: Methods for Monte Carlo
Integration and Optimization**
The ASA, Section on Statistical Computing
*Instructor(s): Jennifer A. Hoeting, Colorado State University; Geof H.
Givens, Colorado State University*

CE_11C   CC-305
8:30 am–5:00 pm
Regression Modeling Strategies

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

The ASA

Instructor(s): Frank E. Harrell, Jr, Vanderbilt University School of Medicine

CE_12C   CC-304
8:30 am–5:00 pm
Hierarchical Bayes Methods and Software for Data Analysis
The ASA, Section on Bayesian Statistical Science

Instructor(s): Bradley P. Carlin, University of Minnesota; Thomas A. Louis, The Johns Hopkins University

CE_13C   CC-303
8:30 am–5:00 pm
Generalized Linear Mixed Models: Theory and Applications
The ASA

Instructor(s): Oliver Schabenberger, SAS Institute, Inc.

Special Presentation 2:00 pm–3:50 pm

1   CC-4C-4
Introductory Overview Lectures: Genomics—Other
The ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Jianwen Cai, The University of North Carolina at Chapel Hill

Chair(s): Barry I. Graubard, National Cancer Institute

2:05 pm	**Association Mapping of Human Disease Genes—** ❖ Bruce S. Weir, University of Washington
2:55 pm	**Statistical Analysis of Haplotype-Disease Association—** ❖ Danyu Lin, The University of North Carolina at Chapel Hill
3:45 pm	**Floor Discussion**

Invited Sessions 2:00 pm–3:50 pm

2   CC-206
Seasonal Time Series—Invited
Business and Economics Statistics Section

Organizer(s): Stuart Scott, Bureau of Labor Statistics

Chair(s): Brian C. Monsell, U.S. Census Bureau

2:05 pm	**Comparing MSEs for Finite X-11 and Model-Based Seasonal Adjustment Filters—** ❖ William R. Bell,

U.S. Census Bureau; Yea-Jane Chu, SPSS Inc.; George C. Tiao, The University of Chicago

2:30 pm	**A Spectral Approach for Locally Assessing Model Misspecification—** Tucker S. McElroy, U.S. Census Bureau; ❖ Scott Holan, University of Missouri-Columbia
2:55 pm	**Nonlinear Seasonal Adjustment in Unobserved Components Models—** ❖ Siem Jan Koopman, Vrije Universiteit Amsterdam; Kai Ming Lee, Vrije Universiteit Amsterdam
3:20 pm	Disc: Xichuan Zhang, Australian Bureau of Statistics
3:40 pm	**Floor Discussion**

3   CC-615
● ✪ Recent Advances in the Design and Analysis of Clinical Trials—Invited
WNAR, Biometrics Section, ENAR

Organizer(s): Lurdes Y. T. Inoue, University of Washington

Chair(s): Kenneth Rice, University of Washington

2:05 pm	**A Bayesian Seamless Design—** ❖ Lurdes Y. T. Inoue, University of Washington
2:30 pm	**A Geometric Approach to Comparing Treatments for Rapidly Fatal Diseases—** ❖ Peter F. Thall, M. D. Anderson Cancer Center; Leiko H. Wooten, M. D. Anderson Cancer Center; Elizabeth J. Shpall, M. D. Anderson Cancer Center
2:55 pm	**Advances in Simple Phase I Trials: Three Examples—** ❖ Rick Chappell, University of Wisconsin-Madison
3:20 pm	**Decision Analysis and Clinical Trial Design—** ❖ Donald Berry, The University of Texas
3:45 pm	**Floor Discussion**

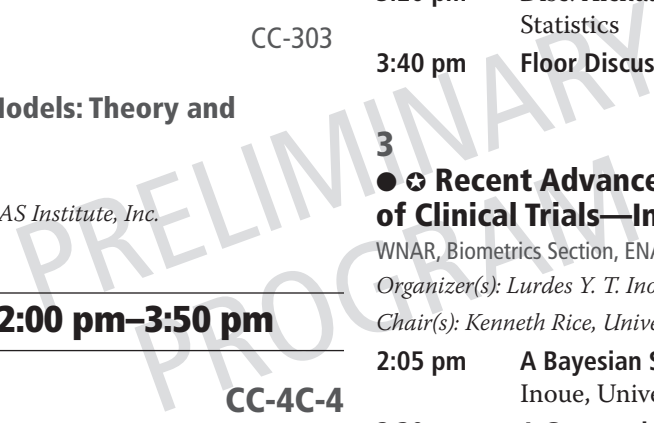**4**   CC-609
Rapid Production of Small-Area Estimates Using the Behavioral Risk Factor Surveillance System—Invited
Section on Survey Research Methods, Section on Health Policy Statistics

Organizer(s): Paul S. Levy, RTI International

Chair(s): Babubhai V. Shah, SAFAL Institute Inc.

2:05 pm	**Rapid Response Health Surveillance and the Utility of Small-Area Estimates: Responding to the 2004–05 Influenza Vaccine Shortage—** ❖ Michael W. Link, Centers for Disease Control and Prevention; Ali H. Mokdad, Centers for Disease

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Sunday

Control and Prevention

2:30 pm **Development of Methodology for Production of Rapidly Available, County-Level, Small-Area Estimates To Monitor the Course of Influenza Vaccine Coverage**—❖ Haomiao Jia, Mercer University School of Medicine; Michael W. Link, Centers for Disease Control and Prevention; Ali H. Mokdad, Centers for Disease Control and Prevention; James Holt, Centers for Disease Control and Prevention; Lei Li, RTI International; Paul S. Levy, RTI International

2:55 pm **Evaluating the Small-Area Estimates of the 2004–05 County-Level Influenza Vaccination Rates**—❖ Lei Li, RTI International; Paul S. Levy, RTI International; Akhil Vaish, RTI International; Michael W. Link, Centers for Disease Control and Prevention; Ali H. Mokdad, Centers for Disease Control and Prevention; Lina Balluz, Centers for Disease Control and Prevention; Haomiao Jia, Mercer University School of Medicine

3:20 pm Disc: Tapabrata Maiti, Iowa State University

3:40 pm **Floor Discussion**

5   CC-3A

✪ Pipeline Issues in Recruiting Federal Statisticians—Invited

Committee on Membership Retention and Recruitment, Section on Statistical Education, Committee on Career Development

Organizer(s): David Banks, Duke University

Chair(s): Dayanand Naik, Old Dominion University

2:05 pm **JPSM: 14 Years of Training Federal Statisticians**—❖ Richard Valliant, University of Michigan; Roger Tourangeau, University of Maryland

2:30 pm **Gulliver Tied down by Red Tape? The Federal Government's Challenges as an Employer of Statisticians**—❖ Janice Lent, Research and Innovative Technology Administration

2:55 pm **Federal Statisticians in the Physical and Engineering Sciences**—❖ William Guthrie, National Institute of Standards and Technology

3:20 pm Disc: David Marker, Westat

3:40 pm **Floor Discussion**

6   CC-3B

✪ Surveillance Geoinformatics and Hotspot Dynamics for Prediction, Policy, and

Management—Invited

Environmental and Ecological Statistics, Section on Statistics and the Environment

Organizer(s): Ganapati P. Patil, Penn State

Chair(s): Ganapati P. Patil, Penn State

2:05 pm **Spatiotemporal Geoinformatic Disease Surveillance**—❖ Stephen L. Rathbun, University of Georgia; Ganapati P. Patil, Penn State

2:30 pm **Crime Mapping and Hotspot Detection**—❖ Reza Modarres, The George Washington University; Ganapati P. Patil, Penn State

2:55 pm **Applications of Hotspot Detection Analysis to Large-Scale Plant Disease Forecasting: Case Study of Fusarium Head Blight**—❖ Murali Haran, Penn State

3:20 pm Disc: Bo Ranneby, Swedish University of Agricultural Sciences

3:40 pm **Floor Discussion**

7   CC-400

● Density-Based Clustering—Invited

Section on Statistical Computing, Section on Statistical Graphics, Section on Nonparametric Statistics

Organizer(s): David W. Scott, Rice University

Chair(s): Michael W. Trosset, The College of William & Mary

2:05 pm **Variable Bandwidth Mode Testing**—❖ Michael C. Minnotte, Utah State University

2:30 pm **Generalized Single-Linkage Clustering**—❖ Werner Stuetzle, University of Washington; Rebecca Nugent, University of Washington

2:55 pm **Mixture Model Building for High-Dimensional and Functional Data**—❖ Catherine Loader, The University of Auckland; Ramani S. Pilla, Case Western Reserve University

3:20 pm Disc: David W. Scott, Rice University

3:40 pm **Floor Discussion**

8   CC-614

● Statistical Methods for Oral Health Research—Invited

ENAR, Biometrics Section, WNAR

Organizer(s): Jason Roy, University of Rochester

Chair(s): Julie Stoner, University of Nebraska Medical Center

2:05 pm **Analysis of Correlated Dental Data: Challenges and Recent Developments**—❖ Brian G. Leroux,

—— GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

University of Washington

2:30 pm	**Finding the Right Pair of Genes: Adding a Genetic Component to Existing Oral Health Studies—❖** Deborah V. Dawson, The University of Iowa
2:55 pm	**A Flexible Model for Recurrent Event Outcomes in Oral Health—❖** Elizabeth H. Slate, Medical University of South Carolina; Edsel A. Pena, University of South Carolina
3:20 pm	**Statistical Approaches for Dealing with Missing Tooth- and Surface-Level Data in Caries Research—❖** Jason Roy, University of Rochester
3:45 pm	**Floor Discussion**

9   CC-620
● Empirical Likelihood-Based Semiparametric Inference—Invited

Biometrics Section, Section on Nonparametric Statistics

Organizer(s): Hua Liang, University of Rochester Medical Center

Chair(s): Xiaogang (Steven) Wang, York University

2:05 pm	**Empirical Likelihood-Based Inference for Comparison of Two Populations with Censored Data—❖** Hua Liang, University of Rochester Medical Center
2:30 pm	**Empirical Likelihood-Based Inferences for Receiver Operating Characteristic Curves in the Presence of Verification Bias—❖** Jing Qin, National Institute of Allergy and Infectious Diseases
2:55 pm	**Empirical Likelihood for Accelerated Failure Time Model—❖** Mai Zhou, University of Kentucky
3:20 pm	**Nonparametric Imputation of Missing Values for Estimating Equation-Based Empirical Likelihood Inference—**Song X. Chen, Iowa State University; ❖ Dong Wang, University of Nebraska
3:45 pm	**Floor Discussion**

10   CC-203
● New Directions in Bayesian Joint Modeling of Longitudinal and Survival Data—Invited

Section on Bayesian Statistical Science, Biometrics Section, WNAR, ENAR

Organizer(s): Timothy Hanson, University of Minnesota

Chair(s): Timothy Hanson, University of Minnesota

2:05 pm	**A Flexible B-Spline Model for Multiple Longitudinal Biomarkers and Survival—❖** Elizabeth Brown, University of Washington
2:35 pm	**Extensions of the Standard Joint Model—❖**

Jeremy M. G. Taylor, University of Michigan

3:05 pm	**Bayesian Semiparametric Methods for Joint Modeling of Longitudinal and Survival Data—❖** Adam Branscum, University of Kentucky; Timothy Hanson, University of Minnesota; Wesley O. Johnson, University of California, Irvine
3:35 pm	**Floor Discussion**

11   CC-604
Modern Monte Carlo Methods for Statistical Inference—Invited

IMS, Section on Bayesian Statistical Science, Section on Nonparametric Statistics

Organizer(s): Anthony Brockwell, Carnegie Mellon University

Chair(s): Arnaud Doucet, The University of British Columbia

2:05 pm	**An Overview of SMC and Adaptive MCMC—❖** Anthony Brockwell, Carnegie Mellon University
2:35 pm	**Simulated Tempering Made Easy—❖** Yves Atchade, University of Ottawa
3:05 pm	**Adaptive Monte Carlo Computing Methods—❖** Christophe Andrieu, University of Bristol
3:35 pm	**Floor Discussion**

Topic-Contributed Sessions
2:00 pm–3:50 pm

12   CC-606
Advances in Item Response Theory—Topic-Contributed

Social Statistics Section

Organizer(s): Sandip Sinharay, Educational Testing Service

Chair(s): Guowen Sun, sanofi-aventis

2:05 pm	**Limited Information Goodness-of-Fit Testing in Multidimensional Contingency Tables—❖** Harry Joe, The University of British Columbia
2:25 pm	**Sensitivity of Latent Trait Analysis to Highly Skewed Ability Distributions—❖** David Dailey, Woodcock-Munoz Foundation; Elena Erosheva, University of Washington
2:45 pm	**Checking the Appropriateness of the Statistical Model Used in National Assessment of Educational Progress—❖** Sandip Sinharay, Educational Testing Service

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

3:05 pm   **Improve Variance Estimation for the Assessments Based on the Plausible Values Approach**—❖ Jiahe Qian, Educational Testing Service; Shelby Haberman, Educational Testing Service

3:25 pm   **Estimation of Measurement Errors at Observed and Scaled Scores**—❖ Michelle Liou, Academia Sinica; Philip E. Cheng, Academia Sinica

3:45 pm   **Floor Discussion**

13   CC-619
● Bayesian Modeling of Biomedical Data—Topic-Contributed

Biometrics Section, Section on Bayesian Statistical Science, WNAR, ENAR

Organizer(s): W. John Boscardin, University of California, Los Angeles

Chair(s): Joseph W. Hogan, Brown University

2:05 pm   **Analysis of Longitudinal Clinical Trial Data with Informative Dropout**—❖ Xiaohong Yan, University of California, Los Angeles; W. John Boscardin, University of California, Los Angeles

2:25 pm   **Bayesian Approach to Multiple Changepoint with Application to HIV Immunologic Responses**—❖ Pulak Ghosh, Georgia State University; Kaushik Ghosh, New Jersey Institute of Technology; Ram Tiwari, National Institutes of Health

2:45 pm   **Bayesian Model Checking for a Longitudinal Binary Variable**—❖ Catherine Crespi, University of California, Los Angeles; W. John Boscardin, University of California, Los Angeles; William G. Cumberland, University of California, Los Angeles

3:05 pm   **Modeling Multivariate Biomedical Data with Polynomial Smoothing Splines**—❖ Hector Lemus, University of California, Los Angeles; W. John Boscardin, University of California, Los Angeles

3:25 pm   **Real-Time Learning for Heterogeneous Multivariate Longitudinal Data**—❖ W. John Boscardin, University of California, Los Angeles; Hector Lemus, University of California, Los Angeles

3:45 pm   **Floor Discussion**

14   CC-401
● Planning Medical Device Studies—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Philip Lavin, Averion Inc.; Greg Campbell, U.S. Food and Drug Administration

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

2:05 pm   **Statistical Myths in the Design and Analysis of Clinical Trials**—❖ Victor Hasselblad, Duke University

2:45 pm   **New Medical Device? When Clinical Data Are Needed for a New Medical Device**—❖ Jeng Mah, American Medical Systems Inc.

3:05 pm   **Statistical Review Quality Assessment for Therapeutic PMA Submissions**—❖ Lilly Yue, U.S. Food and Drug Administration

3:35 pm   **What Device Pivotal Studies Have in Common: Recurring Themes in Study Planning**—❖ Philip Lavin, Averion Inc.

3:55 pm   **Floor Discussion**

15   CC-204
Bayesian Student Paper Competition II—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Steven N. MacEachern, The Ohio State University

Chair(s): Steven L. Scott, University of Southern California

2:05 pm   **Statistical Inference for Nonlinear Models Involving Ordinary Differential Equations**—❖ Lovely Goyal; Sujit Ghosh, North Carolina State University

2:25 pm   **Weighted Model-Based Clustering for Remote Sensing Image Analysis**—❖ Joseph Richards, Carnegie Mellon University; Johanna Hardin, Pomona College

2:45 pm   **On Bayesian Analysis of Generalized Linear Models Using Jacobian Technique**—❖ Sourish Das, University of Connecticut; Dipak Dey, University of Connecticut

3:05 pm   **Using Incompatibility To Build Fast Gibbs Samplers**—❖ Taeyoung Park, Harvard University; David A. van Dyk, University of California, Irvine

3:25 pm   **Improving Classification When a Class Hierarchy Is Available Using a Hierarchy-Based Prior**—❖ Babak Shahbaba, University of Toronto; Radford Neal, University of Toronto

3:45 pm   **Floor Discussion**

16   CC-602
● ✪ IT Process Monitoring and Planning—Topic-Contributed

Section on Physical and Engineering Sciences

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Organizer(s): Yasuo Amemiya, IBM T. J. Watson Research Center

Chair(s): Yasuo Amemiya, IBM T. J. Watson Research Center

2:05 pm	**Fourier Domain Estimation for Network Tomography**—❖ Jin Cao, Bell Labs, Lucent Technologies; Aiyou Chen, Bell Labs, Lucent Technologies; Tian Bu, Bell Labs, Lucent Technologies
2:25 pm	**Robust Estimation for Zero-Inflated Longitudinal Data with Application to IT System Monitoring**—❖ Jing Shen, University of Georgia/IBM; Daniel Hall, University of Georgia
2:45 pm	**Some Statistical Problems in Capacity Management and Planning for On-Demand Computing Services**—❖ Ta-Hsin Li, IBM T. J. Watson Research Center
3:05 pm	**Modeling Multivariate Time Series with Application to Software Defects Data**—❖ Mihaela Serban, Carnegie Mellon University; Wanli Min, IBM T. J. Watson Research Center
3:25 pm	**Improving Service Delivery Process**—❖ Wen-Hua Ju, Avaya Labs Research; Lorraine Denby, Avaya Labs Research; James M. Landwehr, Avaya Labs Research
3:45 pm	**Floor Discussion**

17   CC-201

● Statistical and Quantitative Literacy 2006—Topic-Contributed

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

Organizer(s): Milo Schield, Augsburg College

Chair(s): Jerry Moreno, John Carroll University

2:05 pm	**Increasing Quantitative Literacy through the Mathematics Across the Community College Curriculum Project**—❖ Rebecca Hartzler, Seattle Central Community College; Kim Rheinlander, Dartmouth College
2:25 pm	**Quirks of Rhetoric: a Quantitative Analysis of Quantitative Reasoning in Student Writing**—❖ Neil Lutsky, Carleton College; Scott Bierman, Carleton College
2:45 pm	**Common Misconceptions in Statistical Literacy**—❖ Marc Isaacson, Augsburg College
3:05 pm	**Statistical Literacy: Graphs, Studies, and Related Confounders**—❖ Milo Schield, Augsburg College
3:25 pm	**Pedagogical Challenges of Quantitative Literacy**—❖ Bernard Madison, University of

Arkansas

3:45 pm	**Floor Discussion**

18   CC-205

✪ SAMSI Program on National Defense and Homeland Security: 2005–2006—Topic-Contributed

Section on Statisticians in Defense and National Security

Organizer(s): Michael Last, National Institute of Statistical Sciences

Chair(s): Michael Last, National Institute of Statistical Sciences

2:05 pm	**A Study of Data Swapping for Categorical Variables**—❖ Lisa R. Denogean, SAMSI
2:25 pm	**Anomaly Detection**—❖ Francisco Vera, National Institute of Statistical Sciences
2:45 pm	**New Measures of Data Utility**—❖ Mi-Ja Woo, National Institute of Statistical Sciences
3:05 pm	**Agent-Based Methods for Dynamic Social Networks**—❖ Eric Vance, Duke University; David Banks, Duke University
3:25 pm	Disc: Alan Karr, National Institute of Statistical Sciences
3:45 pm	**Floor Discussion**

19   CC-613

● ✪ Estimation Techniques for Diagnostics Devices—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section, Section on Physical and Engineering Sciences

Organizer(s): Roseann White, Guidant Corporation

Chair(s): David Snead, CORDIS

2:05 pm	**Evaluation of a Noninvasive Diagnostic Device Using Weighted Least Squares Approach**—❖ Zhen Huang, Duke Clinical Research Institute; Huiman Barnhart, Duke University
2:25 pm	**System Accuracy Requirements for Blood Glucose Monitors**—❖ Nancy Schatz, Home Diagnostics, Inc.
2:45 pm	**Bayesian Predictive Probability as a Diagnostic Assessment of the Likelihood of Coronary Artery Disease in Collateral Arteries**—❖ Laura Thompson, U.S. Food and Drug Administration
3:05 pm	**Disease Diagnosis Maximizing Effectiveness and Minimizing Cost of Health Care**—❖ Jeffrey Vaks, Beckman Coulter, Inc.
3:25 pm	**Use of Frequency Domain Measures Instead**

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Sunday

of Traditional Summary Statistics for Use in Diagnostic Devices—❖ Roseann White, Guidant Corporation

3:45 pm   **Floor Discussion**

Regular Contributed Sessions 2:00 pm–3:50 pm

20   CC-607
Types of Modes and Effects on Response Rates and Performance—Contributed

Social Statistics Section

Chair(s): Kristin Stettler, U.S. Census Bureau

2:05 pm   **A Comparison of in-Class and Online Student Evaluations**—❖ David Swanson, University of Mississippi

2:20 pm   **A Repeated Measures Design To Investigate Mode Effects in the Center for Epidemiologic Studies Depression Scale**—❖ Richard Swartz, M. D. Anderson Cancer Center; Carl de Moor, Harvard Medical School; Karon Cook, University of Washington; Rachel T. Fouladi, Simon Fraser University; Karen Basen-Engquist, M. D. Anderson Cancer Center; Cathy Eng, M. D. Anderson Cancer Center

2:35 pm   **Mode of Data Collection and the Foreign Born in the American Community Survey**—❖ Alexa Kennedy-Puthoff, U.S. Census Bureau

2:50 pm   **Making Item Selection More Efficient in Computerized Adaptive Testing**—❖ Hua-Hua Chang, University of Illinois; Zhiliang Ying, Columbia University

3:05 pm   **Infant Malnutrition in the Cape Coast District: a Ghanaian Case**—❖ Amakye Agyekum, University of Cape Coast

3:20 pm   **Floor Discussion**

21   CC-618
Functional Data Analysis, Supervised Learning, and Dimension Reduction—Contributed

Biometrics Section, Section on Nonparametric Statistics, ENAR

Chair(s): Carsten Botts, Williams College

2:05 pm   **Functional Regression Analysis for Longitudinal Data with a Large Number of Repeated Measures**—❖ Xiaowei Yang, University of

California, Davis; Hongquan Xu, University of California, Los Angeles; Qing Shen, Edmunds. com

2:20 pm   **Self-Modeling Regression with Application to Arterial Pulse Pressure Waveforms**—❖ Lyndia Brumback, University of Washington; Doug Tommet, University of Washington; Richard Kronmal, University of Washington

2:35 pm   **Classification and Gene selection of Cancer Micro-arrays by nu-Ridge Regression**—❖ Jun Luo, Michigan State University

2:50 pm   **Boosting with Missing Predictors**—❖ Ching-Yun Wang, Fred Hutchinson Cancer Research Center; Ziding Feng, Fred Hutchinson Cancer Research Center

3:05 pm   **Prediction Based on Two-Stage Modeling**—Amita K. Manatunga, Emory University; ❖ Jose N. G. Binongo, Emory University; Ming Yuan, Georgia Institute of Technology

3:20 pm   **Steps Toward Individualized Treatment: a Double Supervised Machine-Leaning Method**—❖ Steven Y. Cen, University of Southern California; Catherine Sugar, University of Southern California; Bryan Langholz, Keck School of Medicine of USC; David Conti, University of Southern California; Doug Stahl, City of Hope National Medical Center; Stanley P. Azen, University of Southern California

3:35 pm   **On Reducing Multiple Outcomes into a Single Score**—❖ Hui Xie, Boston University

22   CC-617
● Regression for Censored Data—Contributed

Biometrics Section, ENAR

Chair(s): Debajyoti Sinha, Medical University of South Carolina

2:05 pm   **Regression Analysis for Long Term Survival Rate**—❖ Yichuan Zhao, Georgia State University

2:20 pm   **Accelerated Failure Time Model with Random Effects**—❖ Yaqin Wang, Iowa State University; Kenneth Koehler, Iowa State University

2:35 pm   **Penalized Weighted Least Squares Method for Accelerated Failure Time Models with Gene Expression Data**—❖ Simin Hu, Case Western Reserve University; J. S. Rao, Case Western Reserve University

2:50 pm   **On Linear Regression under the Partial Koziol-Green Model of Random Censorship**—❖ Ke Wu,

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

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California State University, Fresno

3:05 pm **Inference for Interval-Censored Data with Different Censoring Patterns among Treatment Groups**—❖ Guozhi Gao, Amgen Inc.; Xiang Zhang, Amgen Inc.; Steven Snapinn, Amgen Inc.; Qi Jiang, Amgen Inc.

3:20 pm **Additive Hazards Model for Case-2 Interval-Censored Failure Time Data**—❖ Lianming Wang, University of Missouri-Columbia; Jianguo Sun, University of Missouri-Columbia; Xingwei Tong, University of Missouri-Columbia

3:35 pm **Statistical Analysis of Multivariate Failure Time Data with Auxiliary Covariates**—❖ Zhaozhi Fan, Memorial University of Newfoundland

23 CC-616

● Normalization and Analysis of Microarrays—Contributed

Biometrics Section, ENAR

Chair(s): Dean Billheimer, Vanderbilt University

2:05 pm **Two Extensions of the TW-SLM for Systematically Incorporating Control Genes and Spot Quality Information To Improve Normalization of cDNA Microarray Data**—❖ Deli Wang, The University of Alabama at Birmingham; Cun-Hui Zhang, Rutgers University; Marcelo B. Soares, Northwestern University; Jian Huang, The University of Iowa

2:20 pm **Using Cytogenetics Data To Guide the Normalization of SNP Microarray Signals**—❖ Stanley Pounds, St. Jude Children's Research Hospital; Cheng Cheng, St. Jude Children's Research Hospital; Charles Mullighan, St. Jude Children's Research Hospital; Salil Goorha, St. Jude Children's Research Hospital; Sheila Shurtleff, St. Jude Children's Research Hospital; Susana C. Raimondi, St. Jude Children's Research Hospital; James R. Downing, St. Jude Children's Research Hospital

2:35 pm **Category Analysis for Microarray Data**—❖ Zhen Jiang, Fred Hutchinson Cancer Research Center; Robert Gentleman, Fred Hutchinson Cancer Research Center

2:50 pm **Probe-Level Modeling and Multiple Testing of Microarray Gene Expression**—❖ Tao Wang, University of South Florida; Magali Mouy, deCODE genetics; Jason Hsu, The Ohio State University; Hakon Hakonarson, deCODE genetics; Kari Stefansson, deCODE genetics

3:05 pm **Application of Temporal Association Rules to a cDNA Microarray Experiment**—❖ Bruce Southey, University of Illinois; Sandra Rodriguez-Zas, University of Illinois; Younhee Ko, University of Illinois; Chengxiang Zhai, University of Illinois

3:20 pm **Quantitative Association Rules Applied to the Analysis of cDNA Microarray Experiments**—❖ Younhee Ko, University of Illinois; Bruce Southey, University of Illinois; Chengxiang Zhai, University of Illinois; Sandra Rodriguez-Zas, University of Illinois

3:35 pm **Strategies for Genome-Wide Family-Based Association Analysis for the Study of Integrative Genomics**—❖ James Degnan, Harvard University; Jessica Su, Harvard University; Cliona Molony, Rosetta Inpharmatics LLC; Eric Schadt, Rosetta Inpharmatics LLC/Merck Research Laboratories; Benjamin Raby, Harvard University; Christoph Lange, Harvard School of Public Health

24 CC-2A

● Pharmacokinetics and Crossover Trials—Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Chair(s): Jie Chen, Merck Research Laboratories

2:05 pm **Assessing PK-AE Relationships Using Nonlinear Models**—❖ Haiyuan Zhu, Merck Research Laboratories

2:20 pm **Applications of Adapted Crossover Designs To Reduce Study Cost and Length in Phase I Clinical Trials**—❖ Fang Liu, Merck Research Laboratories

2:35 pm **Analysis of Replicated Crossover Designs for Average Bioequivalence**—❖ Donna Kowalski, Astellas Pharma Inc.; Devan V. Mehrotra, Merck Research Laboratories

2:50 pm **Assessing Treatment Differences Adjusted by Possible Carryover Effects in Crossover Clinical Trials**—❖ Ling Chen, U.S. Food and Drug Administration

3:05 pm **Factorial Crossover Designs with Fewer Periods and Fewer Subjects**—❖ Sourav Santra, Northern Illinois University

3:20 pm **Locally D-Optimal Designs for Pharmacokinetics Compartmental Models**—❖ Xin Fang, University of Illinois at Chicago

3:35 pm **The Hypothesis Testing behind Steady State Determination in Clinical Pharmacology Trials**—❖

Bingming Yi, Merck & Co., Inc.; Xun Chen, sanofi-aventis; Patrick Larson, Merck & Co., Inc.

25 CC-2B

● Multiple Trials and Multiple Endpoints—Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Chair(s): Shuguang Huang, Eli Lilly and Company

2:05 pm **Analysis of a Composite Endpoint with Missing Data in Components**—❖ Hui Quan, sanofi-aventis; Daowen Zhang, sanofi-aventis; Ji Zhang, sanofi-aventis; Laure Devlamynck, sanofi-aventis

2:20 pm **A Multivariate Median-Based Robust Procedure To Analyze Multiple Endpoints**—❖ Kao-Tai Tsai, Organon; Harji Patel, Georgia Southern University

2:35 pm **On O'Brien's OLS and GLS Tests for Multiple Endpoints**—❖ Sergei Leonov, GlaxoSmithKline; James Roger, GlaxoSmithKline; Nigel Dallow, GlaxoSmithKline

2:50 pm **Tree-Structured Gatekeeping Procedures in Clinical Trials with Multiple Objectives**—❖ Alex Dmitrienko, Eli Lilly and Company; Brian L. Wiens, Myogen, Inc.; Ajit C. Tamhane, Northwestern University; Xin Wang, Northwestern University

3:05 pm **Control of Overall Type I Error in Clinical Trials with Both Surrogate and Final Endpoints**—❖ Chung-Kuei Chang, Cephalon, Inc.

3:20 pm **Monitoring Futility in Two-by-Two Factorial Studies**—❖ Leslie A. McClure, The University of Alabama at Birmingham; Christopher S. Coffey, The University of Alabama at Birmingham; George Howard, The University of Alabama at Birmingham

3:35 pm **Floor Discussion**

26 CC-210

● Mortgages and Auctions—Contributed

Business and Economics Statistics Section

Chair(s): J. Keith Ord, Georgetown University

2:05 pm **Loss and Prepayment Modeling in the Context of Subprime Mortgage Loans**—Deniz Senturk, GE Global Research; ❖ Huaiyu Ma, GE Global Research; Greg Ratkovsky, WMC

2:20 pm **Credit Rating Transition of U.S. Corporate**

Bonds—❖ Weijian Liang, New York University; Halina Frydman, New York University; Stephen Figlewski, New York University

2:35 pm **Credit Risk Ananlysis for Taiwan Electronic Industrial**—❖ Yi-Kuan Jong, St. John's University

2:50 pm **Statistical Validation of a Credit Risk Model**—❖ Lydian Medema, University of Groningen

3:05 pm **A Semiparametric Investigation of the Effect of Reserve Prices on Selling Prices Using Identical Auctioned Items from eBay**—❖ Dawit Zerom, University of Alberta; Peter Popkowski Leszczyc, University of Alberta

3:20 pm **A Statistical Approach to Controlling Sniping in Electronic Auctions**—❖ Dawn Porter, Georgetown University; J. Keith Ord, Georgetown University

3:35 pm **A New Model for Forecasting Credit Spread Changes: Model Estimation, Prediction, and Inference Procedures**—❖ Yang Wang, Penn State

27 CC-213

Software—Contributed

Section on Statistical Computing

Chair(s): Morteza Marzjarani, Saginaw Valley State University

2:05 pm **The Carapace Environment**—❖ Gary Oehlert, University of Minnesota

2:20 pm **Enterprise Automatons with R**—❖ Zubin Dowlaty, InterContinental Hotels Group; Dean Mao, InterContinental Hotels Group; Simon Urbanek, AT&T Labs-Research

2:35 pm **Estimation and Inference in Parametric Stochastic Frontier Models: a SAS/IML Procedure for a Maximum Likelihood Bootstrap Method**—❖ Sylvie Tchumtchoua, University of Connecticut

2:50 pm **A New Program for Computing Percentage Points for Pearson Distributions**—❖ Wei Pan, University of Cincinnati; Haiyan Bai, University of Cincinnati

3:05 pm **Statistical Inference Package (SIP)**—❖ Esa Uusipaikka, University of Turku

3:20 pm **Comparison of Two CAD (Computer-Aided Detection) Algorithms for Decreased False Positives per Image (FP/I) While Having an Equivalent Sensitivity**—❖ Sandra Senneke, BioStat Solutions Inc.; Christina Bromley, BioStat Solutions Inc.; Matthew Freedman, Georgetown University Medical Center; Benedict S. Lo, Georgetown University Medical Center; Jesse Lin, Riverain Medical Group; Xin-Wei Xu, Riverain

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Sunday

Medical Group; Fleming Lure, Riverain Medical Group

3:35 pm   **Floor Discussion**

28   CC-214
Testing—Contributed
Section on Statistical Computing

Chair(s): Faming Liang, Texas A&M University

2:05 pm   **Testing the Equality of Two Normally Distributed Populations—**❖ Charles Dunn, Miami University

2:20 pm   **Generation of the Distribution of the Test for a Latin Square Design with Heterogeneous Variances—**❖ Miin-Jye Wen, National Cheng Kung University; Hubert Chen, National Cheng Kung University

2:35 pm   **On Testing the Bioequivalence of Several Treatments Using the Measure of Distance—**❖ Hubert Chen, National Cheng Kung University; Miin-Jye Wen, National Cheng Kung University

2:50 pm   **An Exact Test for Testing the Equality of Parameter Matrices in Two Multivariate Linear Models—**❖ Jinadasa K. Gamage, Illinois State University; Malwane M. A. Ananda, University of Nevada, Las Vegas

3:05 pm   **Performance of Robust and Nonrobust Roy-Bargmann Stepdown Follow up to a Significant MANOVA under a Variety of Conditions: a Simulation Study—**❖ Holmes Finch, Ball State University

3:20 pm   **Comparisons of Sets of Multivariate Time Series—**❖ Jaydip Mukhopadhyay, University of Connecticut; Nalini Ravishanker, University of Connecticut; Jonathan Hosking, IBM Research

3:35 pm   **Iterated BH Procedure—**❖ Nasrine Bendjilali, Lehigh University; Wei-Min Huang, Lehigh University

29   CC-603
Likelihood-Based Inference—Contributed
IMS

Chair(s): Siobhan Everson-Stewart, University of Washington

2:05 pm   **Testing of Rate Ratio under Inverse Sampling—**❖ Hon Keung T. Ng, Southern Methodist University; Man Lai Tang, Hong Kong Baptist University; Yijie Liao, Hong Kong Baptist University; Ping Shing Chan, The Chinese University of Hong Kong

2:20 pm   **A Bivariate Interval Censorship Model for Partnership Formation—**❖ Qiqing Yu, Binghamton University; Linda Wong, Binghamton University

2:35 pm   **The Likelihood Ratio Test of Mixture Hypotheses and the Tube Volume Problem—**❖ Yong Lin, University of Medicine & Dentistry of New Jersey; Bruce G. Lindsay, Penn State

2:50 pm   **On Hinkley's Estimator: Inference about the Change-Point—**❖ Stergios B. Fotopoulos, Washington State University; Venkata Jandhyala, Washington State University

3:05 pm   **Conditional Properties of a Parametric Bootstrap—**❖ Russell Zaretzki, University of Tennessee

3:20 pm   **Summarizing and Interpreting Likelihood Functions as Functions—**❖ Michael Brimacombe, University of Medicine & Dentistry of New Jersey; Bo Peng, University of Medicine & Dentistry of New Jersey

3:35 pm   **Testing for and against a Set of Linear Inequality Constraints in the Product Multinomial Setting—**❖ Hammou Elbarmi, Baruch College

30   CC-211
Bayesian Biomedical Modeling—Contributed
Section on Bayesian Statistical Science, Biometrics Section, WNAR, ENAR

Chair(s): Edwin S. Iversen, Jr., Duke University

2:05 pm   **Monitoring Event Times in Early-Phase Clinical Trials: Practical Issues—**❖ Leiko H. Wooten, M. D. Anderson Cancer Center; Peter F. Thall, M. D. Anderson Cancer Center; Nizar M. Tannir, M. D. Anderson Cancer Center

2:20 pm   **Modeling Long-Term HIV Dynamics: a Bayesian Approach—**❖ Dacheng Liu, Boehringer Ingelheim; Hulin Wu, University of Rochester; Yangxin Huang Huang, University of South Florida

2:35 pm   **Prior Structures for Surrogate Endpoint Validation Using PTE—**❖ Chunyao Feng, Baylor University; John W. Seaman, Baylor University; Stacy Lindborg, Eli Lilly and Company

2:50 pm   **A Bayesian Multivariate PK/PD Model for Analyzing Cortisol Circadian Rhythm in a Depression Study—**❖ Niko Kaciroti, University of Michigan; Trivellore E. Raghunathan, University

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

of Michigan; Delia Vazquez, University of Michigan

3:05 pm **Bayesian Modeling of Correlated Binary Data from the Cryotherapy for Retinopathy of Prematurity (CRYO-ROP) Study**—❖ Claudia Pedroza, The University of Texas School of Public Health; Betty Tung, The University of Texas School of Public Health

3:20 pm **Bayesian Analysis of Age-Adjusted Cancer Rates Using Joinpoint Regression Model**—❖ Ram Tiwari, National Institutes of Health; Pulak Ghosh, Georgia State University

3:35 pm **Bayesian Modeling of Noncompliance in Folic Acid Dosing Studies**—❖ Owen Devine, Centers for Disease Control and Prevention

31   CC-605
Consumer Prices and Expenditures—Contributed
Section on Government Statistics

Chair(s): Alan R. Tupek, U.S. Census Bureau

2:05 pm **A Micro-Level Latent Class Analysis of Underreporting on the Consumer Expenditure Survey**—❖ Brian Meekins, Bureau of Labor Statistics; Clyde Tucker, Bureau of Labor Statistics; Paul Biemer, RTI International

2:20 pm **The Use of Geocoding to Locate Outlets Outside of Sample Area Boundaries to Determine Significant Areas of Commerce**—❖ John Schilp, Bureau of Labor Statistics; Fred Marsh, III, Bureau of Labor Statistics

2:35 pm **Internet Portals and Outlet Selection Issues in the Consumer Price Index**—❖ Charles Mason, Bureau of Labor Statistics; Roberta Sangster, Bureau of Labor Statistics; Madeleine Saxton, Bureau of Labor Statistics

2:50 pm **A Spatial Analysis of Price Change in CPI Housing Index**—❖ William Larson, Bureau of Labor Statistics

3:05 pm **Comparison of Chained CPI-U and Regular CPI-U All-U.S. Indexes in the Housing Sector (2000–2004)**—❖ Owen Shoemaker, Bureau of Labor Statistics

3:20 pm **Comparison between Newly Proposed Response Rates and Current Response Rates for the TPOP Survey**—❖ Fred Marsh, III, Bureau of Labor Statistics

3:35 pm **Effect of Computer-Assisted Personal Interviews**

in the U.S. Consumer Expenditure Interview Survey—❖ Moon Jung Cho, Bureau of Labor Statistics; Carolyn Pickering, Bureau of Labor Statistics

32   CC-612
● Applications for Modeling Health Survey Data—Contributed
Section on Health Policy Statistics

Chair(s): David Blough, University of Washington

2:05 pm **Mental Distress of Canadian National Population Health Surveys Participants Who Reported Nonmalignant Respiratory Diseases**—❖ Punam Pahwa, University of Saskatchewan; Chandima Karunanayake, University of Saskatchewan; Helen H. McDuffie, University of Saskatchewan

2:20 pm **Statistical Modeling of Longitudinal Mental Distress among the National Population Health Survey Participants: Missing Data Analysis**—❖ Chandima Karunanayake, University of Saskatchewan; Punam Pahwa, University of Saskatchewan; Helen H. McDuffie, University of Saskatchewan

2:35 pm **A Two-Phase Model To Study the Health Care–Seeking Behaviors for Common Cold of Ppeople in Taiwan**—❖ Hsing-Yi Chang, CHPRD, NHRI; Yu-Wen Wen, CHPRD, NHRI

2:50 pm **Alcohol Disorders and Employment Stability: a Longitudinal Study**—❖ Richard Bryant, University of Missouri-Rolla; V. A. R. Samaranayake, University of Missouri-Rolla

3:05 pm **Significance Analysis of Physician Photo Identification Cards Trial**—❖ Ye-Ying Cen, Hennepin County Medical Center; Jennings Ryan Staley, United States Air Force; Baolin Wu, University of Minnesota; Scott F. Davies, Hennepin County Medical Center

3:20 pm **Development, Scaling, and Implementation of a Patient Satisfaction Inventory for Organ Transplant Candidates and Recipients**—❖ Irene Feurer, Vanderbilt University Medical Center; Hongxia Liu, Vanderbilt University School of Nursing; Panarut Wisawatapnimit, Vanderbilt University School of Nursing; C. Wright Pinson, Vanderbilt University Medical Center

3:35 pm **Factor Analysis with Categorical Data: a Methodological Illustration with the GAZA Child Health Survey Data**—❖ Dongguang Li, National

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Cancer Institute of Canada; John D. Pringle, Queen's University; Julio Arboleda-Florez, Queen's University; Heather Stuart, Queen's University

33   CC-212
● Nonparametric Approaches to Regression and Spatial Modeling—Contributed
Section on Nonparametric Statistics

Chair(s): Huiping Jiang, Columbia University

2:05 pm   **Regression Model-Fitting with Long Memory**—❖ Hongwen Guo, Michigan State University; Hira L. Koul, Michigan State University

2:20 pm   **Multivariate Theil-Sen Estimators**—❖ Xin Dang, University of Mississippi; Hanxiang Peng, University of Mississippi; Xueqin Wang, Yale University School of Medicine

2:35 pm   **A Goodness-of-Fit Test for Parametric Regression Models When Some Covariates are Missing**—❖ Lei Jin, Texas A&M University; Suojin Wang, Texas A&M University

2:50 pm   **Estimating Prediction Error in Linear Regression by Cross-Validation**—❖ Hui Shen, The University of British Columbia; William J. Welch, The University of British Columbia

3:05 pm   **On Nonparametric Smoothing Methods for Assessing Climate Change**—❖ Patricia Menendez Galvan, Swiss Federal Research Institute WSL/ETHZ; Sucharita Ghosh, Swiss Federal Research Institute WSL

3:20 pm   **Evaluation of Spatial Normalization Parameters for SPM: Application to Type 2 Diabetes Data**—❖ Bedda Rosario, University of Pittsburgh; Scott Ziolko, University of Pittsburgh; Lisa Weissfeld, University of Pittsburgh; Julie Price, University of Pittsburgh

3:35 pm   **Statistical Methods for Proportional Hazards Regression with Missing Covariates**—❖ Lihong Qi, University of California, Davis; Ching-Yun Wang, Fred Hutchinson Cancer Research Center; Ross Prentice, Fred Hutchinson Cancer Research Center

34   CC-601
Optimal Experimental Design—Contributed
Section on Physical and Engineering Sciences

Chair(s): Cheryl Dingus, Battelle Memorial Institute

2:05 pm   **A Catalog of Nonisomorphic Indicator Functions**—❖ Shao-Wei Cheng, Academia Sinica; Chien-Yu Peng, Academia Sinica

2:20 pm   **Certain Orthogonal Arrays with Generalized Minimum Aberration**—❖ Aijun Zhang, University of Michigan

2:35 pm   **Optimal Fold-Over Designs for Three-Level Fractional Factorial Designs**—❖ Hong Zhou, University of Memphis; Manohar L. Aggarwal, University of Memphis; Lih Yuan Deng, University of Memphis; Dennis K. J. Lin, Penn State

2:50 pm   **(M,S)-Optimality in Selecting Factorial Designs**—❖ Xianggui Qu, Oakland University; Robert Kushler, Oakland University; Theophilus Ogunyemi, Oakland University

3:05 pm   **Algorithms for Generating Experimental Designs for Irregularly-Shaped Regions**—❖ Greg Piepel, Battelle-PNNL; Nam-Ky Nguyen, University of New England

3:20 pm   **Orthogonal-Maximin Latin Hypercube Designs**—❖ Ying Hung, Georgia Institute of Technology; Roshan J. Vengazhiyil, Georgia Institute of Technology

3:35 pm   **Optimal Design of an Ion Trapping Experiment**—❖ Kevin Coakley, National Institute of Standards and Technology

35   CC-611
● ✪ Causal Models and Causal Effects—Contributed
Section on Statistics in Epidemiology, Biometrics Section, ENAR

Chair(s): Abdus Wahed, University of Pittsburgh

2:05 pm   **On Informative Detection Bias in Screening Studies**—❖ Arvid Sjˆlander, Karolinska Institutet; Juni Palmgren, Karolinska Institutet

2:20 pm   **Estimating a Class of Causal Treatment Effect for Survival Data**—❖ Jing Ning, The Johns Hopkins University; Mei-Cheng Wang, The Johns Hopkins University; Zhiqiang Tan, The Johns Hopkins University

2:35 pm   **Path Analysis for Ordinal Variables**—❖ Haihong Li, University of Florida; P. V. Rao, University of Florida

2:50 pm   **Approaches to Obtaining Standard Errors for Parameter Estimates in Latent Class Analysis**—❖ David M. Thompson, The University of Oklahoma

3:05 pm   **An Application of Multivariate Path Models and**

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Sunday

the Calculus of Coefficients to Describe Effects of Health Behaviors on the Metabolic Syndrome. —❖ Youngju Pak, University at Buffalo; Randy L. Carter, University at Buffalo

3:20 pm   **Signed Directed Acyclic Graphs for Causal Inference**—❖ Tyler J. VanderWeele, Harvard School of Public Health; James Robins, Harvard School of Public Health

3:35 pm   **Floor Discussion**

36   CC-608
● Unit Nonresponse in Surveys I—Contributed
Section on Survey Research Methods

Chair(s): Karol Krotki, RTI International

2:05 pm   **Nonresponse to a Computer-Assisted Self-Interviewing (CASI) Module**—❖ Mick Couper, University of Michigan; Eleanor Singer, University of Michigan; John Van Hoewyk, University of Michigan

2:20 pm   **Assessing the Effectiveness of Weighting Cell Adjustments for Longitudinal Nonresponse**—❖ Leroy Bailey, U.S. Census Bureau

2:35 pm   **Sample Reweighting To Reflect an Initial Population**—❖ Julia Bienias, Rush University Medical Center; Phillip S. Kott, National Agricultural Statistics Service; Todd L. Beck, Rush University Medical Center; Denis A. Evans, Rush University Medical Center

2:50 pm   **Approaches to Nonresponse Bias Analysis in an Adult Literacy Survey**—❖ Wendy Van de Kerckhove, Westat; Thomas Krenzke, Westat; Leyla Mohadjer, Westat

3:05 pm   **An Application of Propensity Modeling To Adjust Weights for Nonresponse: Effectiveness of Restricting Variables and Propensity Values**—❖ Frank Potter, Mathematica Policy Research, Inc.; Nuria Diaz-Tena, Mathematica Policy Research, Inc.; Stephen R. Williams, Mathematica Policy Research, Inc.

3:20 pm   **Adjusting for Nonignorable Missing Data with Nonignorable Sampling Design in Longitudinal Sample Survey**—❖ Moh Yin Chang, University of Nebraska-Lincoln

3:35 pm   **Estimated Response Propensities as a Means To Evaluate Error Effects Due to Nonresponse**—❖ Leela Aertker, The University of North Carolina at Chapel Hill; William D. Kalsbeek, The University

of North Carolina at Chapel Hill

37   CC-610
● Estimation and Confidentiality—Contributed
Section on Survey Research Methods, Section on Health Policy Statistics

Chair(s): Andrew A. White, Institute of Education Sciences

2:05 pm   **Disclosure Avoidance for the 2007 ACS PUMS: a Model-Based Approach for Group-Quarters Data**—❖ Rolando Rodriguez, U.S. Census Bureau

2:20 pm   **Confidentiality in Survey Data: the Lack of Consistent Standards**—❖ M. Leeann Habte, University of California, Los Angeles; Hongjian Yu, University of California, Los Angeles; Jenny Chia, University of California, Los Angeles; Brandon Traudt, University of California, Los Angeles

2:35 pm   **Reporting to Payers, Regulators, and Managers: Issues and Experiences with Confidentiality and Compliance**—❖ Richard Carlson, Medica

2:50 pm   **A Bridge between the Greg and the Linear Regression Estimators**—❖ Sarjinder Singh, St. Cloud State University; Raghunath Arnab, University of Botswana

3:05 pm   **A Generalized Forced Quantitative Randomized Response Model**—❖ Oluseun Odumade, St. Cloud State University; Sarjinder Singh, St. Cloud State University

3:20 pm   **Global and Hierarchical Linear Regression in Two-Stage Sampling**—❖ Dhirendra Ghosh, Synectics for Management Decisions, Inc.; Andrew Vogt, Georgetown University

3:35 pm   **The Change-of-Variance Function in Generalized Linear Mixed-Effect Models with Applications to Poisson-Gamma and Beta-Binomial Models**—❖ Gabriela Cohen-Freue, The University of British Columbia

Special Presentation 4:00 pm–5:50 pm

38   CC-4C-4
Introductory Overview Lectures: Adaptive Designs/Interim Pilots and Regression Trees—Other
The ASA, ENAR, IMS, SPAIG Committee, WNAR

Organizer(s): Lisa M. LaVange, The University of North Carolina at

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Chapel Hill

Chair(s): Lisa M. LaVange, The University of North Carolina at Chapel Hill

4:05 pm	**Regression Trees**—❖ Wei-Yin Loh, University of Wisconsin-Madison
4:55 pm	**Adaptive and Internal Pilot Designs**—❖ Christopher S. Coffey, The University of Alabama at Birmingham
5:45 pm	**Floor Discussion**

Invited Sessions 4:00 pm–5:50 pm

39   CC-401
Statistics in Biotechnology around the Puget Sound—Invited

ASA, Puget Sound Chapter, Section on Statistical Graphics

Organizer(s): Bruce Peterson, Terastat

Chair(s): Tim C. Hesterberg, Insightful Corporation

4:05 pm	**Reference Samples and Other Low-Level Choices for the Design and Analysis of Two-Color Microarray Experiments**—❖ Kathleen Kerr, University of Washington
4:35 pm	**Graphs and Networks in Computational Biology**—❖ Robert Gentleman, Fred Hutchinson Cancer Research Center
5:05 pm	**Statistical Methods for Integrating High-Dimensional Genotype, Molecular Profiling, and Clinical Data To Elucidate Human Disease**—❖ Eric Schadt, Rosetta Inpharmatics LLC/Merck Research Laboratories
5:35 pm	**Floor Discussion**

40   CC-400
Statistical Issues in Genetic Association Studies—Invited

General Methodology, Biometrics Section, ENAR

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

Chair(s): Daniel Schaid, Mayo Clinic College of Medicine

4:05 pm	**Family Studies in the Age of Association**—❖ Nan M. Laird, Harvard School of Public Health
4:30 pm	**Hybrid Vigor: Family-Based and Population-Based Designs Can Work Together**—❖ Clarice R. Weinberg, National Institute of Environmental Health Sciences; David M. Umbach, National

Institute of Environmental Health Sciences

4:55 pm	**Analysis of Complex Pathways in Molecular Epidemiology**—❖ Duncan C. Thomas, University of Southern California
5:20 pm	Disc: David Clayton, University of Cambridge
5:40 pm	**Floor Discussion**

41   CC-203
● ✪ Statistical Effect Assessment of Environmental Exposure—Invited

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

Organizer(s): Li-Shan Huang, University of Rochester

Chair(s): Christopher Cox, The Johns Hopkins University

4:05 pm	**Bayesian Models for Multiple Outcomes Nested within Domains**—❖ Sally W. Thurston, University of Rochester Medical Center; David Ruppert, Cornell University
4:30 pm	**Analysis of Multivariate Longitudinal Data Using Structural Equation Models**—❖ Esben Budtz-Jorgensen, University of Copenhagen; Philippe Grandjean, Harvard University; Frodi Debes, University of Southern Denmark; Pal Weihe, Faroese Hospital System
4:55 pm	**Double-Smoothing Local Linear Estimation in Partial Linear Models with Application to Environmental Health Data**—❖ Li-Shan Huang, University of Rochester; Christopher Cox, The Johns Hopkins University
5:20 pm	**Synthesizing Data from Multiple Sources for Environmental Risk Assessment**—❖ Louise Ryan, Harvard School of Public Health
5:45 pm	**Floor Discussion**

42   CC-610
Graphical Models and Variational Methods—Invited

IMS, Section on Bayesian Statistical Science

Organizer(s): Martin Wainwright, University of California, Berkeley

Chair(s): Martin Wainwright, University of California, Berkeley

4:05 pm	**Variational Methods for Dirichlet Process Mixtures**—❖ David M. Blei, Princeton University; Michael I. Jordan, University of California, Berkeley
4:30 pm	**Structured Prediction, Dual Extragradient, and Bregman Projections**—❖ Ben Taskar, University of California, Berkeley

Sunday

4:55 pm **A Variational Inference Procedure Allowing Internal Structure for Overlapping Clusters and Deterministic Constraints**—❖ Christopher Meek, Microsoft Research; Dan Geiger, Technion-Israel Institute of Technology

5:45 pm **Floor Discussion**

43 CC-213
● Statistical Methods in HIV/AIDS Research—Invited

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Organizer(s): Michael G. Hudgens, The University of North Carolina at Chapel Hill

Chair(s): Michael G. Hudgens, The University of North Carolina at Chapel Hill

4:05 pm **Methods for Determining the Accuracy of Quantitative PCR for Low Levels of HIV-1**—❖ Barbra Richardson, University of Washington

4:25 pm **A Bernoulli/Left-Censored Lognormal Mixture Model for Activity of the Protease of HIV-1 as a Function of Amino Acid Characteristics**—❖ Paul W. Stewart, The University of North Carolina at Chapel Hill

4:45 pm **Evaluating Linked Substitutions in HIV Genomic Sequences**—❖ Francoise Seillier-Moiseiwitsch, Georgetown University Medical Center; Huwaida Rabie, Georgetown University Medical Center; Rebecca Slack, Georgetown University Medical Center; JaeHyung Ahn, The University of North Carolina at Chapel Hill; Gary Koch, The University of North Carolina at Chapel Hill

5:05 pm **A Comprehensive Mathematical Model of HIV/STD Spread in Communities**—❖ Georgiy V. Bobashev, RTI International; Michael Goedecke, RTI International; Elizabeth Costenbader, RTI International; Wiliam Zule, RTI International

5:25 pm Disc: Sarah Holte, Fred Hutchinson Cancer Research Center

5:45 pm **Floor Discussion**

44 CC-201
● Global Views on the Role of Statistics in Medical Device Regulation—Invited

Biopharmaceutical Section, ENAR

Organizer(s): Gene Pennello, U.S. Food and Drug Administration

Chair(s): Gene Pennello, U.S. Food and Drug Administration

4:05 pm **Statistical Regulations in the EU: Do They Exist for Medical Devices?**—❖ Bart Gerritse, Medtronic, Inc.

4:30 pm **Statistics in the Chinese Regulatory Environment of Medical Devices**—❖ Li Wei, Cardiovascular Institute and Fu Wai Hospital; Yao Chen, Peking University First Hospital

4:55 pm **The Global Harmonization Task Force**—❖ Larry G. Kessler, U.S. Food and Drug Administration

5:20 pm Disc: Greg Campbell, U.S. Food and Drug Administration

5:40 pm **Floor Discussion**

45 CC-3A
Statistical Learning and Data Mining—Invited

International Chinese Statistical Association, Section on Nonparametric Statistics

Organizer(s): Xiaotong Shen, University of Minnesota

Chair(s): Xiao-Li Meng, Harvard University

4:05 pm **Image Denoising via Solution Paths**—❖ Ji Zhu, University of Michigan; Li Wang, University of Michigan; Hui Zou, University of Minnesota

4:35 pm **Using Input-Dependent Weights for Model Combination and Model Selection with Multiple Sources of Data**—❖ Wei Pan, University of Minnesota; Guanghua Xiao, University of Minnesota; Xiaohong Huang, University of Minnesota

5:05 pm **Binning in Gaussian Kernel Regularization**—❖ Bin Yu, University of California, Berkeley; Tao Shi, University of California, Berkeley

5:35 pm **Floor Discussion**

46 CC-614
Statistical Graphics: from Playfair to Bertin and Beyond—Invited

Section on Statistical Graphics, Section on Statistical Education

Organizer(s): Michael Friendly, York University

Chair(s): Antony Unwin, Universit%ot Augsburg

4:05 pm **Graphics in French Statistical Journals during the 19th Century**—❖ Antoine de Falguerolles, University Paul Sabatier (Toulouse III)

4:35 pm **Andre-Michel Guerry and the Rise of Moral Statistics**—❖ Michael Friendly, York University

5:05 pm **William Playfair and the Psychology of Graphs**—❖ Ian Spence, University of Toronto

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Sunday

5:35 pm   **Floor Discussion**

47   CC-210
● Statistical Methods in Oral Health Research—Invited

Biometrics Section, WNAR

Organizer(s): Elizabeth G. Hill, Medical University of South Carolina

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

4:05 pm   **A Semiparametric Bayesian Model for Inter-Rater Agreement of Probing Pocket Depth**—❖ Elizabeth G. Hill, Medical University of South Carolina; Elizabeth H. Slate, Medical University of South Carolina

4:30 pm   **Ensemble Models for Risk Prediction with Survey and Multilevel Data**—❖ Stuart A. Gansky, University of California, San Francisco; Nancy F. Cheng, University of California, San Francisco

4:55 pm   **Spatial Analyses of Periodontal Data Using Conditionally Autoregressive Priors Having Two Classes of Neighbor Relations**—❖ Brian Reich, North Carolina State University; James Hodges, University of Minnesota; Bradley P. Carlin, University of Minnesota

5:20 pm   Disc: Julie Stoner, University of Nebraska Medical Center

5:40 pm   **Floor Discussion**

Invited Panels 4:00 pm–5:50 pm

48   CC-617
● ✪ Minorities, Environment, and Statistics—Invited

Committee on Minorities in Statistics, Section on Statistical Education

Organizer(s): Nagambal Shah, Spelman College

Chair(s): Calvin L. Williams, Clemson University

Panelists: ❖ Nagambal Shah, Spelman College

❖ William Hunt, North Carolina State University

❖ Julia Bader, The University of Texas at El Paso

❖ Kishi Animashaun Ducre, Syracuse University

5:45 pm   **Floor Discussion**

49   CC-3B
● ✪ 'Bad' Statistical Methods: What Are the Costs?—Invited

The American Statistician, Section on Statistical Education, Section on Statistical Consulting, Section on Teaching Statistics in the Health Sciences

Organizer(s): Peter Westfall, Texas Tech University

Chair(s): Peter Westfall, Texas Tech University

Panelists: ❖ David Freedman, University of California, Berkeley

❖ S. StanleyYoung, National Institute of Statistical Sciences

❖ Mary Foulkes, U.S. Food and Drug Administration

❖ Juliet Shaffer, University of California, Berkeley

5:45 pm   **Floor Discussion**

Topic-Contributed Sessions 4:00 pm–5:50 pm

50   CC-204
● Strengths and Weaknesses of a Megatrial—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Vipin Arora, Novartis Pharmaceuticals Corporation; Tsushung A. Hua, Novartis Pharmaceuticals Corporation

Chair(s): John E. Connett, University of Minnesota

4:05 pm   **Megatrials: Not Necessarily Either/Or**—❖ Lloyd Fisher, University of Washington

4:25 pm   **Issues in the Use of a Composite Endpoint in Megatrials**—❖ Steven Snapinn, Amgen Inc.

4:45 pm   **Are Megatrials Worth It?**—❖ Barry Davis, The University of Texas School of Public Health

5:05 pm   **Strengths and Weaknesses of a Megatrial: Complexity of Designing, Handling, and Implementing Megatrials**—❖ Timothy Church, University of Minnesota

5:25 pm   Disc: Patrick O'Meara, Pat O'Meara Associates, Inc.

5:45 pm   **Floor Discussion**

51   CC-613
● ✪ Issues with Open Source Statistical Software in Industry: Validation, Legal Issues, and Regulatory Requirements—Topic-Contributed

Section on Statistical Computing, Biopharmaceutical Section, Section on Statistical Consulting, Section on Statistical Graphics

Organizer(s): Nicholas J. I. Lewin-Koh, Eli Lilly and Company

Chair(s): Stacy Lindborg, Eli Lilly and Company

4:05 pm	**Open-Source Software and Pharma Development: Computer Systems Validation and Value**—❖ Anthony Rossini, Novartis Pharma AG
4:25 pm	**Open-Source Software in Pharmaceutical Discovery**—❖ Gregory Warnes, Pfizer Inc.; A. Max Kuhn, Pfizer Global Research & Development; James Rogers, Pfizer Global Research & Development
4:45 pm	**Use of Open-Source Software by an Academic Center in a Regulatory Environment**—❖ Thomas D. Cook, University of Wisconsin-Madison
5:05 pm	**Times R A'changin': FDA Perspectives on Use of Open Source**—❖ B. Sue Bell, U.S. Food and Drug Administration; Kathleen Morrish, U.S. Food and Drug Administration; Ferrin Harrison, U.S. Food and Drug Administration; David Petullo, U.S. Food and Drug Administration; Laura Thompson, U.S. Food and Drug Administration; Gerry W. Gray, U.S. Food and Drug Administration
5:25 pm	**Software and Code Evaluation: Risk-Based Approaches to Software Integration**—❖ Nicholas J. I. Lewin-Koh, Eli Lilly and Company; Robert A. Myers, Eli Lilly and Company
5:45 pm	**Floor Discussion**

52   CC-602
Model-Based Seasonal Adjustment: Algorithms and Applications—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Brian C. Monsell, U.S. Census Bureau

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

4:05 pm	**Numerical Implementation of Kalman Filter/Smoother for State Space Models with Partially Diffuse Initial Conditions**—❖ Rajesh Selukar, SAS Institute, Inc.
4:25 pm	**Evaluation of Finite-Sample Diagnostics for Model-Based Seasonal Adjustments and Trends**—❖ David Findley, U.S. Census Bureau; Richard Gagnon, U.S. Census Bureau; Tucker S. McElroy, U.S. Census Bureau
4:45 pm	**Aspects of Model Averaging for Seasonal Adjustment**—❖ John Aston, Academia Sinica
5:05 pm	**Assessing Spectral Peaks in Economic Time Series**—❖ Thomas D. Evans, Bureau of Labor Statistics; Stuart Scott, Bureau of Labor Statistics; Scott Holan, University of Missouri-Columbia;

Tucker S. McElroy, U.S. Census Bureau

5:25 pm	**Floor Discussion**

53   CC-615
● From Sharks to Salmon: Quantitative Tools in Marine Demography and Management for Puget Sound and Alaska Fisheries—Topic-Contributed

Section on Statistics and the Environment

Organizer(s): Loveday Conquest, University of Washington

Chair(s): Loveday Conquest, University of Washington

4:05 pm	**The Management Strategy Evaluation Approach and the Gulf of Alaska Walleye Pollock Fishery**—❖ Teresa A'mar, University of Washington; Andre E. Punt, University of Washington; Martin W. Dorn, NOAA
4:25 pm	**Using Mixture Models To Estimate Abundance of Patchy Species**—❖ Elizabeth Conners, NOAA
4:45 pm	**Forecasts of Salmon Returns**—❖ Saang-Yoon Hyun, Columbia River Inter-Tribal Fish Commission; David H. Salinger, University of Washington
5:05 pm	**Using Multivariate Statistics To Resolve Issues of Scale with Salmon Survival and Ocean Environmental Data**—❖ Rishi Sharma, University of Washington
5:25 pm	**Reconciling Biological Realities with Statistical Requirements in Fitting Growth Curves with Emphasis on Growth Models for Sharks**—❖ Nicole Vega, University of Washington; Vincent Gallucci, University of Washington
5:45 pm	**Floor Discussion**

54   CC-620
● ✪ Overview and Results from the 2005 National Census Test—Topic-Contributed

Section on Survey Research Methods

Organizer(s): Jennifer Tancreto, U.S. Census Bureau

Chair(s): James Treat, U.S. Census Bureau

4:05 pm	**An Overview of the 2005 National Census Test**—❖ Jennifer Tancreto, U.S. Census Bureau
4:25 pm	**Effect of Internet Response Mode Designs on Data Quality and Ease of Use**—❖ Kelly Allmang, U.S. Census Bureau; Kevin Zajac, U.S. Census Bureau
4:45 pm	**Experimental Treatment Results of the Bilingual Census Form from the 2005 National Census**

Test—❖ Julie Bouffard, U.S. Census Bureau; Jennifer Tancreto, U.S. Census Bureau

5:05 pm   **Analysis of Self-Response Options and Respondent-Friendly Design from the 2005 National Census Test**—❖ Michael Bentley, U.S. Census Bureau

5:25 pm   **Experimental Treatment Results for the Age, Relationship, and Tenure Items from the 2005 National Census Test**—❖ Joan Hill, U.S. Census Bureau; Jennifer Tancreto, U.S. Census Bureau; Cynthia A. Rothhaas, U.S. Census Bureau

5:45 pm   **Floor Discussion**

55   CC-611
● Statistical Issues in Veterans' Administration (VA) Health Services Research—Topic-Contributed

Section on Health Policy Statistics

Organizer(s): Roslyn A. Stone, Veteran's Affairs Pittsburgh Healthcare System

Chair(s): Xiao-Hua Andrew Zhou, University of Washington

4:05 pm   **Statistical Issues in Racial/Ethnic Disparities Research**—❖ Roslyn A. Stone, Veteran's Affairs Pittsburgh Healthcare System; Huanyu Chen, VA Pittsburgh Healthcare System; Xiangyan Xu, Veteran's Affairs Pittsburgh Healthcare System

4:25 pm   **The Use of Hierarchical Linear Models To Evaluate Methods for the Delivery of Primary Care**—❖ Martin Lee, University of California, Los Angeles

4:45 pm   **Understanding Variation in Patient Safety Measures in the VA: How Bayesian Methods Can Help**—❖ Cindy Christiansen, Boston University

5:05 pm   **A Decision-Theoretic Approach to Identifying Future High-Cost Patients**—❖ Kenneth Pietz, U.S. Department of Veterans Affairs; Margaret M. Byrne, University of Miami; Laura A. Petersen, U.S. Department of Veterans Affairs

5:25 pm   Disc: Stephan Fihn, University of Washington Harborview Medical Center

5:45 pm   **Floor Discussion**

56   CC-604
● ✪ Bayesian Student Paper Competition I—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Steven N. MacEachern, The Ohio State University

Chair(s): Merlise Clyde, Duke University

4:05 pm   **Bayesian Synthesis**—❖ Qingzhao Yu, The Ohio State University; Steven N. MacEachern, The Ohio State University; Mario Peruggia, The Ohio State University

4:25 pm   **A Bayesian Framework To Combine Multivariate Spatial Data and Physical Models for Hurricane Surface Wind Prediction**—❖ Kristen M. Foley, North Carolina State University; Montserrat Fuentes, North Carolina State University

4:45 pm   **A Bayesian Pooled Analysis of Doubly Censored HIV Data Using the Hierarchical Cox Model**—❖ Wei Zhang, Boehringer Ingelheim; Kathryn Chaloner, The University of Iowa; Ying Zhang, The University of Iowa; Mary K. Cowles, The University of Iowa

5:05 pm   **An Adaptive Bayesian Approach to Jointly Modeling Response and Toxicity in Phase I Dose-Finding Trials**—❖ Meihua Wang, University of Pittsburgh; Roger Day, University of Pittsburgh

5:25 pm   **Hierarchical State-Space Model for Microarray Short Time Course Experiments**—❖ Haiyan Wu, Emory University; Ming Yuan, Georgia Institute of Technology; Susan Kaech, Yale University; M. Elizabeth Halloran, Fred Hutchinson Cancer Research Center

5:45 pm   **Floor Discussion**

57   CC-612
● Student Paper Competition Award Presentations—Topic-Contributed

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

Organizer(s): Michael P. Cohen, Bureau of Transportation Statistics

Chair(s): Michael P. Cohen, Bureau of Transportation Statistics

4:05 pm   **Robust Model-Based Predictor of Finite Population Total**—❖ Yan Li, University of Maryland; Partha Lahiri, University of Maryland

4:25 pm   **Causal Inference Based on Directed Acyclic Graphical Models and the Randomization Distribution: a Probability-Sampling Approach**—❖ Joel E. Hanson, University of California, Berkeley

4:45 pm   **Small-Area Estimation for Business Surveys**—❖ Hukum Chandra, University of Southampton

5:05 pm   **An Application of Parametric Bootstrap Method in Small-Area Estimation Problem**—❖ Huilin Li, University of Maryland

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

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5:25 pm **Local Polynomial Regression for Small-Area Estimation**—❖ Pushpal Mukhopadhyay, Iowa State University; Tapabrata Maiti, Iowa State University

5:45 pm **Floor Discussion**

Topic-Contributed Panels
4:00 pm–5:50 pm

58 CC-608
● ✪ Going beyond the Law: Ethical Aspects of Privacy in Surveys—Topic-Contributed
Social Statistics Section

Organizer(s): Gerald Gates, U.S. Census Bureau

Chair(s): Barbara Bailar, Consultant

Panelists: ❖ Gerald Gates, U.S. Census Bureau
❖ Pamela White, Statistics Canada
❖ Jeffery Rodamar, U.S. Department of Education

5:45 pm **Floor Discussion**

59 CC-609
● How Is the TI-83 Calculator Changing How We Teach the Introductory Course in Statistics? Or Is It?—Topic-Contributed
Section on Statistical Education

Organizer(s): Marjorie Bond, Monmouth College

Chair(s): Marjorie Bond, Monmouth College

Panelists: ❖ Dexter Whittinghill, Rowan University
❖ Christopher Mecklin, Murray State University
❖ Carolyn P. Dobler, Gustavus Adolphus College
❖ James Davis, Radford University
❖ Madhuri Mulekar, University of South Alabama

5:45 pm **Floor Discussion**

60 CC-607
The Nontechnical Side of Statistical Consulting: Reflections on Careers as Working Statisticians and Suggestions and Guidance for Those on the Way—Topic-Contributed
Section on Statistical Consulting, Section on Statistical Education

Organizer(s): John Bartko, Retired

Chair(s): John Bartko, Retired

Panelists: ❖ Barbara Bailar, Consultant
❖ John Bailar, Consultant
❖ Thomas Boardman, Colorado State University
❖ Gerald van Belle, University of Washington

5:45 pm **Floor Discussion**

61 CC-211
Statistical Aspects of Pharmaceutical Industry Proof-of-Concept Studies—Topic-Contributed
Biopharmaceutical Section

Organizer(s): Alfred Balch, Novartis Pharmaceuticals Corporation

Chair(s): Joga Gobburu, U.S. Food and Drug Administration

Panelists: ❖ Surya Mohanty, Johnson & Johnson Pharmaceutical R&D
❖ Glen Laird, Novartis Pharmaceuticals Corporation
❖ Alfred Balch, Novartis Pharmaceuticals Corporation
❖ Jens Praestgaard, Novartis Pharmaceuticals Corporation

5:45 pm **Floor Discussion**

Regular Contributed Sessions
4:00 pm–5:50 pm

62 CC-205
● Measuring Gene Expression—Contributed
Biometrics Section, WNAR, ENAR

Chair(s): Saonli Basu, University of Minnesota

4:05 pm **Clustering of Time-Course Gene Expression Data Using Functional Data Analysis**—❖ Joon Jin Song, University of Arkansas; Ho-Jin Lee, Schering-Plough Corporation; Jeffrey S. Morris, M. D. Anderson Cancer Center; Sanghoon Kang, Oak Ridge National Laboratory

4:20 pm **Dynamic Network Analysis of Time-Course Gene Expression Data**—❖ Donatello Telesca, University of Washington; Lurdes Y. T. Inoue, University of Washington

4:35 pm **A Bayes Approach to Virus Gene Time Course Expression Data**—❖ I-Shou Chang, National Health Research Institutes

4:50 pm **Comparing Distance Measures for Clustering Time-Course Microarray Data**—❖ Theresa Scharl,

GENERAL PROGRAM SCHEDULE

♻ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

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Vienna University of Technology; Friedrich Leisch, University of Munich

5:05 pm   **Bayesian Markov Chain Monte Carlo and Restricted Maximum Likelihood Study of Gene Expression Patterns across Time**—❖ Feng Hong, University of Illinois; Sandra Rodriguez-Zas, University of Illinois

5:20 pm   **Semiparametric Analysis of Gene Expression Patterns across Ages**—❖ Sandra Rodriguez-Zas, University of Illinois; Bruce Southey, University of Illinois; Gene Robinson, University of Illinois

5:35 pm   **Connectivity, Module-Conformity, and Significance: Understanding Gene Coexpression Network Methods**—❖ Jun Dong, University of California, Los Angeles; Steve Horvath, University of California, Los Angeles; Andy Yip, National University of Singapore

63   CC-206
● Advances in Analyzing fMRI Studies—Contributed

Biometrics Section, ENAR

Chair(s): Brian Caffo, The Johns Hopkins University

4:05 pm   **Intrinsic Voxel Correlation in fMRI**—❖ Daniel Rowe, Medical College of Wisconsin; Raymond G. Hoffmann, Medical College of Wisconsin

4:20 pm   **Robust Independent Component Analysis in fMRI**—❖ Ping Bai, The University of North Carolina at Chapel Hill; Young Truong, The University of North Carolina at Chapel Hill

4:35 pm   **A Semiparametric Approach To Estimate the Family-Wise Error Rate in fMRI Using Resting-State Data**—❖ Rajesh Nandy, University of California, Los Angeles

4:50 pm   **Spatio-Temporal Modeling of Functional Magnetic Resonance Imaging Data**—❖ Qihua Lin, Southern Methodist University; Patrick S. Carmack, The University of Texas Southwestern Medical Center at Dallas; Richard F. Gunst, Southern Methodist University; William R. Schucany, Southern Methodist University; Jeffrey S. Spence, The University of Texas Southwestern Medical Center at Dallas

5:05 pm   **Interpreting Experience-Based Cognition from fMRI**—❖ Rajan Patel; F. DuBois Bowman, Emory University; Ying Guo, Emory University; Gordana Derado, Emory University; Lance Waller,

Emory University; Amita K. Manatunga, Emory University

5:20 pm   **Detecting Cerebral Activation from Functional Magnetic Resonance Imaging Data**—❖ William Baumann, Iowa State University; Ranjan Maitra, Iowa State University

5:35 pm   **Floor Discussion**

64   CC-214
● ♻ Methodological Issues in Genetics Studies—Contributed

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Chair(s): Bryan Langholz, Keck School of Medicine of USC

4:05 pm   **An Importance Sampling Procedure for Obtaining Confidence Intervals of Disease Loci with General Pedigree Data**—❖ Shuyan Wan, The Ohio State University; Shili Lin, The Ohio State University

4:20 pm   **Correcting for Measurement Errors in Structured Association Tests**—❖ Jasmin Divers, The University of Alabama at Birmingham; Laura K. Vaughan, The University of Alabama at Birmingham; David Redden, The University of Alabama at Birmingham; Jose R. Fernandez, The University of Alabama at Birmingham; David B. Allison, The University of Alabama at Birmingham

4:35 pm   **Genomic Control for Association Studies When the Genetic Model Is Unknown**—❖ Gang Zheng, National Heart, Lung, and Blood Institute; Boris Freidlin, National Cancer Institute; Joseph Gastwirth, The George Washington University

4:50 pm   **Pedigree Disequilibrium Test for X-Chromosome Markers**—❖ Jie Ding, The Ohio State University; Shili Lin, The Ohio State University

5:05 pm   **Incorporating Endophenotypes into Allelic Association Studies**—❖ Chao Hsiung

5:20 pm   **Allowing for Etiologic Heterogeneity by Disease Subtype Increases the Power of Tests for Genetic Association**—❖ Peter Kraft, Harvard University; Sholom Wacholder, National Cancer Institute; Nilanjan Chatterjee, National Cancer Institute

5:35 pm   **A Multiple Test Procedure Controling Type I Error for Genome Scan Association Studies using HapMap Data**—❖ Renfang Jiang, Michigan Technological University; Jianping Dong, Michigan Technological University; Shuanglin Zhang, Michigan Technological University;

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Qiuying Sha, Michigan Technological University

65   CC-619

● Sample Survey Design I—Contributed

Section on Survey Research Methods

Chair(s): Soma Roy, The Ohio State University

4:05 pm **Model-Based Sampling Designs for Optimum Estimation—**❖ Sun Woong Kim, Dongguk University; Steven G. Heeringa, University of Michigan; Peter W. Solenberger, University of Michigan

4:20 pm **Optimum Allocation in Two-Stage and Stratified Two-Stage Sampling for Multivariate Surveys—**❖ M. G. M. Khan, The University of the South Pacific; Munish A. Chand, The University of the South Pacific

4:35 pm **An Application of Genetic Algorithms to Multivariate Optimal Allocation in Stratified Sample Designs—**❖ Charles Day

4:50 pm **The Effect of the Number Eligible and Number Selected within Households on Reported Income and Other Socioeconomic Characteristics in the 2004 NSDUH—**❖ Tania Robbins, RTI International

5:05 pm **NASS/USDA Area Frame Sample Allocation for Estimation of Number of Farms Not on the Ag Census Mailing List—**❖ Floyd Spears, Harding University; Raj S. Chhikara, University of Houston-Clear Lake; Charles R. Perry, National Agricultural Statistics Service; Phillip S. Kott, National Agricultural Statistics Service

5:20 pm **Simple Power Calculations: How Do We Know We Are Doing It the Right Way?—**❖ Michael Vorburger, RTI International

5:35 pm **Estimation in Network Populations—**❖ Mike Kwanisai, NORC

66   CC-618

● Sample Survey Quality I—Contributed

Section on Survey Research Methods

Chair(s): Michael P. Battaglia, Abt Associates Inc.

4:05 pm **Nonresponse Bias Studies: 2003–2004 School and Staffing Survey—**❖ Robyn Sirkis, U.S. Census Bureau; Bac Tran, U.S. Census Bureau; Phyllis Singer, U.S. Census Bureau

4:20 pm **Call Efforts and Relational Estimates: Preliminary**

Findings—❖ Chung-tung Lin, U.S. Food and Drug Administration

4:35 pm **Estimation of Low Incidence Rates under Selection Bias—**❖ Bin Wang, University of South Alabama; Jiayang Sun, Case Western Reserve University

4:50 pm **Assessment of Diagnostic Tests in the Presence of Verification Bias Using Multiple Imputation and Resampling Methods—**❖ Michael P. McDermott, University of Rochester Medical Center; Hua He, University of Rochester Medical Center

5:05 pm **Treatment of Spatial Autocorrelation in Geocoded Crime Data—**❖ Krista Collins, Statistics Canada; Colin Babyak, Statistics Canada

5:20 pm **Assessing Population Coverage in a Health Survey—**❖ Karen Davis, National Center for Health Statistics; Chris Moriarity, National Center for Health Statistics

5:35 pm **A Study of IRS Administrative Payroll as a Substitute for Missing Payroll—**❖ Melvin McCullough, U.S. Census Bureau

67   CC-606

● ✪ Industrial Applications—Contributed

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

Chair(s): Angela Patterson, GE Global Research

4:05 pm **Hierarchcial Modeling Using GLMs To Improve Yield—**❖ Christina Mastrangelo, University of Washington; Naveen Kumar, University of Washington

4:20 pm **Sequential Analysis on Misspecified Distributions—**❖ Theresa Utlaut, Intel Corporation; Kevin Anderson, Intel Corporation

4:35 pm **On Robust Statistics—**❖ Kevin Anderson, Intel Corporation

4:50 pm **Robust Analysis of Variance: Process Design and Quality Improvement—**❖ Avi Giloni, Yeshiva University; Sridhar Seshadri, New York University; Jeffrey Simonoff, New York University

5:05 pm **Statistical Quality Control of Loadboards for Electronic Package Testers—**❖ Meihui Guo, National Sun Yat-sen University; Yu-Jung Huang, I-Shou University; Ming-Kun Chen, I-Shou University

5:20 pm **Statistical Monitoring of Multistage Processes—**❖ Fugee Tsung, HKUST

Sunday

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

5:35 pm   **Stochastic Models for Predicting Product Failure Rate of Parenterals Due to Particulate Matter**—❖ Chi-Hse Teng, Pfizer Inc.

68   CC-616

● ✪ Risk Assessment in Business and Finance—Contributed

Section on Risk Analysis

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

4:05 pm   **On the Application of the Latent-Variable Model To Predict Business Default**—❖ K. Paul Chin, Dun & Bradstreet, Inc.; Edgar Ortiz, Dun & Bradstreet, Inc.; Jianjing Ling, Dun & Bradstreet, Inc.

4:20 pm   **Mixture Models Applied to Reject Inference**—❖ Billie Anderson, The University of Alabama; J. Michael Hardin, The University of Alabama; Ana Landeros, The University of Alabama; Michael Conerly, The University of Alabama

4:35 pm   **How To Address Click Fraud in Pay-per-Click Programs**—❖ Vincent Granville, Authenticlick

4:50 pm   **Application of Kernel Methods to Fraud Detection**—❖ Ravi Mallela, Equbits

5:05 pm   **Partial Hedging Using Malliavin Calculus**—❖ Lan Nygren, Rider University; Lakner Peter, New York University

5:20 pm   **An Econometric Model for Insurance Underwriting Using Bivariate Zero-Inflated Count Models**—K. Paul Chin, Dun & Bradstreet, Inc.; ❖ Edgar Ortiz, Dun & Bradstreet, Inc.

5:35 pm   **Investigating the Determinants of Financial Harm and Predatory Lending through RDD and Victim Population Surveys**—❖ Danna Moore, Washington State University

69   CC-601

Modeling—Contributed

Section on Statistical Computing

Chair(s): Wei Pan, University of Cincinnati

4:05 pm   **Finite Elements Methods for Density Estimation**—❖ George Terrell, Virginia Polytechnic Institute and State University

4:20 pm   **On the Mixture of Multivariate Skew Normal Distributions**—❖ Jack C. Lee, National Chiao Tung University; Tsung-I Lin, National Chung Hsing University

4:35 pm   **Latent Regression**—❖ Thaddeus Tarpey, Wright State University; Eva Petkova, Columbia University

4:50 pm   **Estimation for Finite Mixture Multinomial Models**—❖ Nagaraj Neerchal, University of Maryland Baltimore County; Minglei Liu, Medtronic, Inc.; Jorge Morel, Procter & Gamble

5:05 pm   **Predictive Discrepancy Using Full Cross-Validation for Regression Models**—❖ Mark Greenwood, Montana State University

5:20 pm   **On the Nonnegative Garrote Estimator**—❖ Ming Yuan, Georgia Institute of Technology; Yi Lin, University of Wisconsin-Madison

5:35 pm   **Latent Transition Analysis: Inference and Estimation**—❖ Hwan Chung, Michigan State University

70   CC-603

● ✪ Bayesian Spatial and Spatio-Temporal Models—Contributed

Section on Bayesian Statistical Science

Chair(s): Peter F. Craigmile, The Ohio State University

4:05 pm   **Bayesian Change Point Analysis for Local Linear Regression: a New Approach to Prior Selection**—❖ Rajib Paul, The Ohio State University; L. Mark Berliner, The Ohio State University

4:20 pm   **A Bayesian Dynamic Spatio-Temporal Interaction Model**—❖ Jacob Oleson, The University of Iowa; Hoon Kim, California State Polytechnic University, Pomona

4:35 pm   **Dimension Reduction in Spatio-Temporal Models via Dynamic Support Points**—❖ Todd DeWees, University of Missouri-Columbia; Christopher K. Wikle, University of Missouri-Columbia

4:50 pm   **Multiresolution Hierarchical Dynamical Models for Spatio-Temporal Processes**—❖ Ali Arab, University of Missouri-Columbia; Christopher K. Wikle, University of Missouri-Columbia

5:05 pm   **Spatial Bayesian Modeling of fMRI Data: a Multiple-Subject Analysis**—❖ Lei Xu, University of Michigan; Timothy D. Johnson, University of Michigan; Thomas Nichols, University of Michigan

5:20 pm   **Bayesian Hierarchical Spatially Correlated Functional Data Analysis with Application to Colon Carcinogenesis**—❖ Veera Baladandayuthapani, M. D. Anderson Cancer Center; Raymond J. Carroll, Texas A&M

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

University; Bani K. Mallick, Texas A&M
University; Mee Young Hong, Texas A&M
University

5:35 pm   **Floor Discussion**

71   CC-605
Designs for Clinical Trials and Other Studies—Contributed

IMS, Biometrics Section, ENAR

Chair(s): Rebecca Nugent, University of Washington

4:05 pm   **Identifiably Of Placebo Responders via Potential Outcomes**—❖ Eva Petkova, Columbia University; Thaddeus Tarpey, Wright State University; Yimeng Lu, Columbia University; Donald Klein, Columbia University

4:20 pm   **Efficient Adaptive Designs for Clinical Trials**—❖ Jay Bartroff, Stanford University; Tze Leung Lai, Stanford University

4:35 pm   **Remodified Continual Reassessment Method and the PBTC Experience**—❖ Arzu Onar, St. Jude Children's Research Hospital; Mehmet Kocak, St. Jude Children's Research Hospital; James Boyett, St. Jude Children's Research Hospital

4:50 pm   **D-optimal designs for compartmental models**—❖ Gang Li, GlaxoSmithKline; Dibyen Majumdar, University of Illinois at Chicago

5:05 pm   **Robust Designs for Binomial Data**—❖ Adeniyi Adewale, University of Alberta; Douglas P. Wiens, University of Alberta

5:20 pm   **Exact D-Optimal Designs for Second-Order Response Surface Model on a Sphere and with Qualitative Factors**—❖ Chuan-Pin Lee, National Sun Yat-sen University; Mong-Na Lo Huang, National Sun Yat-sen University; Ray-Bing Chen, National University of Kaohsiung

5:35 pm   **D-Optimal Designs for Combined Polynomial and Trigonometric Regression on a Partial Circle**—❖ Fu-Chuen Chang, National Sun Yat-sen University

72   CC-2A
● Clinical Trial Design and Analysis—Contributed

Biopharmaceutical Section, Biometrics Section, WNAR, ENAR

Chair(s): Sheng Feng, Duke University

4:05 pm   **Note on Randomization-Based Inferences for Randomized Clinical Trials**—❖ Guohua Pan, Johnson & Johnson Pharmaceutical R&D; Yibin

Wang, Novartis Pharmaceuticals Corporation

4:20 pm   **Four Types of Sums of Squares and Estimates of Treatment Differences in Multicenter Clinical Trials**—❖ Daozhi Zhang, DOV Pharmaceutical, Inc.

4:35 pm   **Optimal Allocation of Units When Comparing k Treatments to Two Controls of Unequal Importance**—❖ Nairanjana Dasgupta, Washington State University

4:50 pm   **A Method for Testing a Prespecified Subgroup in Clinical Trials**—❖ Yang Song, Johnson & Johnson Pharmaceutical R&D; George Chi, Johnson & Johnson Pharmaceutical R&D

5:05 pm   **Some Issues in Fitting Clinical Count Data with Poisson Regression Model**—❖ Abdul Sankoh, sanofi-aventis

5:20 pm   **Interval Estimation of Risk Ratio in the Simple Compliance Randomized Trial**—❖ Kung-Jong Lui, San Diego State University

5:35 pm   **Floor Discussion**

73   CC-2B
● Phase II Trials—Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Chair(s): Dennis Cosmatos, Wyeth Research

4:05 pm   **A Parallel Phase I/II Clinical Trial Design for Combination Therapies**—❖ Xuelin Huang, M. D. Anderson Cancer Center; Swati Biswas, University of North Texas Health Science Center; Yasuhiro Oki, M. D. Anderson Cancer Center; Jean-Pierre Issa, M. D. Anderson Cancer Center; Donald Berry, The University of Texas

4:20 pm   **Three-Outcome Design for Randomized Comparative Phase II Clinical Trials**—❖ Shengyan Hong, Eli Lilly and Company; Yanping Wang, Eli Lilly and Company

4:35 pm   **Two-Stage Accrual Designs for Phase II Clinical Trials with a Trinomial Endpoint**—❖ Paul Elson, The Cleveland Clinic

4:50 pm   **Optimal Trial Designs for Screening Cancer Therapeutic Agents**—❖ Vandana Mukhi, New York University School of Medicine; Yongzhao Shao, New York University; Judith D. Goldberg, New York University School of Medicine

5:05 pm   **Optimal Adaptive Designs in Phase II Trials**—❖ Anindita Banerjee, North Carolina State University; Anastasios A. Tsiatis, North Carolina

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

State University

5:20 pm **Optimal Two-Stage Designs for Phase II Clinical Trials for Continuous Endpoints—**❖ Chinfu Hsiao, National Health Research Institutes; Hsiao-Hui Tsou, National Health Research Institutes; Jen-pei Liu, National Taiwan University; Shein-Chung Chow, Duke University

5:35 pm **Critical Statistical Issues in the Design and Analysis of Proof-of-Concept Clinical Trials in Multiple Sclerosis—**❖ Chris Assaid, Merck & Co., Inc.

74   CC-212
● Methods for Incomplete Data—Contributed
Biometrics Section

Chair(s): Yichuan Zhao, Georgia State University

4:05 pm **Semiparametric Models and Sensitivity Analysis of Longitudinal Data with Nonrandom Dropouts—**❖ David Todem, Michigan State University; KyungMann Kim, University of Wisconsin-Madison; Jason P. Fine, University of Wisconsin-Madison

4:20 pm **Methods on Longitudinal Data with Drop-Outs and Mismeasured Covariates—**❖ Grace Y. Yi, University of Waterloo

4:35 pm **Semiparametric Analysis of Longitudinal Data with Potential Right Censoring—**❖ Mengling Liu, New York University School of Medicine; Zhiliang Ying, Columbia University

4:50 pm **A Multiple Imputation Approach for Responders Analysis in Longitudinal Studies—**❖ Liqiu Jiang, North Carolina State University; Kaifeng Lu, Merck & Co., Inc.; Anastasios A. Tsiatis, North Carolina State University

5:05 pm **Estimation of Transition Probabilities in a Discrete-Time Markov Chain with Missing Observations—**❖ Hung-Wen Yeh, The University of Texas School of Public Health; Wenyaw Chan, The University of Texas School of Public Health

5:20 pm **Nonparametric Comparison of Two Survival Functions with Dependent Censoring via Nonparametric Multiple Imputation—**❖ Chiu-Hsieh Hsu, University of Arizona; Jeremy M. G. Taylor, University of Michigan

5:35 pm **Multivariate One-Sided Hypotheses Testing with Complete or Incomplete Data—**❖ Tao Wang, The University of British Columbia; Lang Wu, The

University of British Columbia

Regular Contributed Posters
4:00 pm–5:50 pm

75   CC-Level 6 East Lobby
Contributed Posters—Contributed
Biometrics Section, Biopharmaceutical Section, General Methodology, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Survey Research Methods

Organizer(s): Maura E. Stokes, SAS Institute, Inc.

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Biometrics, biostatistics, epidemiology
01 Examining the Effect of Biomarkers in Terms of Pathological Compartmentalization and a Continuous Variable—❖ Irene Helenowski, Northwestern University; Edward F. Vonesh, Baxter Healthcare Corporation; Ryan J. Deaton, University of Illinois at Chicago; Borko Jovanovic, Northwestern University; Alfred W. Rademaker, Northwestern University; Sally A. Freels, University of Illinois; Vijayalakshmi Ananthanarayanan, University of Illinois at Chicago; Peter H. Gann, University of Illinois at Chicago

Clinical trials, drug discovery
02 Minimum Sample Size in Control Group When Comparing Efficacy Rate with Several Treatment Groups—❖ Alan Davis, Pharmanet; Inder J. Sharma, Sharma Associates, Inc.

03 Exploring the Relationship between Extended Oral Anticoagulant Therapy after a First Episode of Venous Thrombosis and Mortality Using Meta-analysis—❖ Brianna Miller, The University of Oklahoma

04 Interval Estimation of Binomial Proportion in Clinical Trials with a Two-Stage Design—❖ Chen Chia Min, National Cheng Kung University

05 GLUMIP 2. 0: Free SAS/IMLÆ Software for Planning Internal Pilots—❖ John Kairalla, The University of North Carolina at Chapel Hill; Christopher S. Coffey, The University of Alabama at Birmingham; Keith E. Muller, The University of North Carolina at Chapel Hill

06 Stroke Clinical Trials and Response-Adaptive Randomization: an Ideal Match—❖ Yuko Palesch, Medical University of South Carolina; Amy Bardeen, Medical University of South Carolina; Renee Martin, Medical University of South Carolina

07 Multivariate Applications in Systems Biology—❖ Amber Anderson, GlaxoSmithKline; Zhu Lei, GlaxoSmithKline;

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Edit Kurali, GlaxoSmithKline; Amit Bhattacharyya, GlaxoSmithKIine; Kwan Lee, GlaxoSmithKline; Michael Durante, GlaxoSmithKline

08 Comparing the Performance of Three Asymptotic Methods in Estimating the Sample Size for a Therapeutic Equivalence Study Based on Difference of Proportions— ❖ Xiaoning Li, The University of Oklahoma Health Sciences Center; Sara K. Vesely, The University of Oklahoma Health Sciences Center

09 Recent Development in Exact Inference for Parallel Group Design with Repeated Binary Measurements—❖ Dar-Shong Hwang, B. R. S. I. ; James Lee, Sankyo Pharma Development

10 Issues of Covariate Adjustments in Clinical Trials—❖ Moh-Jee Ng, U.S. Food and Drug Administration; Tie-Hua Ng, U.S. Food and Drug Administration

11 Can We Recruit Additional Subjects for a Failed Study?—❖ Paul Hshieh, U.S. Food and Drug Administration; Tie-Hua Ng, U.S. Food and Drug Administration

Incomplete data analysis, imputation methods

12 Multiple imputation by chained equations: predictive mean matching—❖ Gerald Kolm, Emory University; Deborah Ehrenthal, Christiana Care Health System; Edward Ewen, Christiana Care Health System

13 Weighted Logrank-Type Tests Based on Doubly Truncated Data—❖ Su Pei Fang, National Cheng Kung University

14 Kernel-Assisted EM Algorithm—❖ Suzanne Dubnicka, Kansas State University

Pharmacokinetics and pharmacodynamics

15 The analysis of mixed-effects compartmental systems using Bayesian and non-Bayesian methods—❖ Yi Wang, University of Nebraska-Lincoln; Kent M. Eskridge, University of Nebraska-Lincoln; Shunpu Zhang, University of Nebraska-Lincoln

Reliability and survival modeling

16 An Application of Accelerated Lifetime Design/Analysis for Estimating the Lifetime of CDs and DVDs—❖ James J. Filliben, National Institute of Standards and Technology; Adriana Hornikova, National Institute of Standards and Technology; Frederick R. Byers, National Institute of Standards and Technology

17 Parametric Distance Estimators versus Maximum Likelihood Estimators in Estimating Quantiles with Misclassified Data—❖ Elliott Nebenzahl, California State University, East Bay; Dean Fearn, California State University, East Bay

18 A Hyperbolastic Model for Survival Data—❖ Zoran Bursac, University of Arkansas for Medical Sciences; Mohammad Tabatabai, Cameron University; David K. Williams, University of Arkansas for Medical Sciences; Karan P. Singh, University of North Texas Health Science Center

19 Survival Analysis on Recurrent Event Data: an Application to Alcoholism Study—❖ Jian Han, Bristol-Myers Squibb Company

Semiparametric and nonparametric methods

21 Locally Efficient Estimators for Semiparametric Models with Measurement Error—❖ Yanyuan Ma, Texas A&M University; Raymond J. Carroll, Texas A&M University

22 A Graphical Method for Testing the Equality of Regression Curves—❖ Kee-Hoon Kang, Hankuk University of Foreign Studies; Cheolwoo Park, University of Georgia

23 A Permutation Test for Compound Symmetry—❖ Tracy Morris, Oklahoma State University; Mark Payton, Oklahoma State University

Regular Contributed Posters
8:00 pm–9:50 pm

76   **CC-Level 6 East Lobby**
Contributed Poster Session with Opening Mixer: a Look at the Richness of Statistical Interests—Contributed

ENAR, Section on Statistical Computing, Section on Statistics in Epidemiology, Biometrics Section, Biopharmaceutical Section, Business and Economics Statistics Section, General Methodology, Section on Government Statistics, Section on Physical and Engineering Sciences, Social Statistics Section, Section on Survey Research Methods, Section on Statistical Education, Section on Statistics and the Environment

Organizer(s): Maura E. Stokes, SAS Institute, Inc.

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Bayesian statistics, hierarchical models

01 A Bayesian Approach to Semicontinuous Longitudinal Data— ❖ Bing Han, Penn State; Wei Huang, Temple University

Biometrics, biostatistics, epidemiology

02 Survival Instantaneous Log-Odds Ratio from Empirical Functions—❖ JungAh Jung, Novartis Pharmaceuticals Corporation; J. Wanzer Drane, University of South Carolina

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Sunday

03   LTAS. NET: a NIOSH Life Table Analysis System for the Windows Environment—❖ Mary Schubauer-Berigan, National Institute for Occupational Safety and Health; William R. Raudabaugh, Constella, Inc.; Avima Ruder, National Institute for Occupational Safety and Health; Misty Hein, National Institute for Occupational Safety and Health; Sharon R. Silver, National Institute for Occupational Safety and Health; Patricia Laber, National Institute for Occupational Safety and Health; Kathleen Waters, National Institute for Occupational Safety and Health; Jinghui Liu, Westat; Steven Spaeth; Kyle Steenland, Emory University

04   Estimating Lifetime Prevalence Using Data from Disease Registries—❖ Limin X. Clegg, National Cancer Institute

05   Epidemiology of Herpes Zoster (Shingles)—❖ Peter Wollan, Olmsted Medical Center; Patricia Saddier, Merck Research Laboratories; Lina Sy, Merck Research Laboratories; Barbara P. Yawn, Olmsted Medical Center

Business, financial, and marketing statistics

06   What We Know about Unsuccessful and Successful High-Risk R&D Projects and What We Can Learn from Them—❖ Stephanie Shipp, National Institute of Standards and Technology

Clinical trials and drug discovery

07   Data Simulation Methodologies for Determining Sample Size Requirements To Test Gene-Drug Interactions in Genetically Pre-Screened Populations—❖ Kimberly Lowe, University of Arizona College of Public Health; James Ranger-Moore, University of Arizona College of Public Health; Patricia Thompson, Arizona Cancer Center

Computational statistics and numerical methods

08   Wavelet-Based Functional Mixed Model Data Analysis: Computational Considerations—❖ Richard Herrick, M. D. Anderson Cancer Center; Jeffrey S. Morris, M. D. Anderson Cancer Center

Engineering and physical sciences, chemometrics

09   Hierarchical Bayesian Calibration of Untested Devices—❖ Reid Landes, University of Arkansas for Medical Sciences

Environmetrics, ecology, agriculture, wildlife management

10   Strip Transect Sampling To Estimate Object Abundance in Homogeneous and Nonhomogeneous Poisson Fields: a Simulation Study of the Effects of Transect Width and Number—❖ Timothy C. Coburn, Abilene Christian University; Sean A. McKenna, Sandia National Laboratories; Hirotaka Saito, University of California, Riverside; Orlando T. Garcia, Sandia National Laboratories

General

11   The Impact of Computer Programming Languages on Statistics—❖ Morteza Marzjarani, Saginaw Valley State University

Genetics, bioinformatics, computational biology

12   Analyzing a Metabolomics Dataset—❖ Teresa Norris,

13   Inferring Quantitative Trait Loci Using a Bayesian Variable Selection Model and Markov Chain Monte Carlo Convergence Diagnostics—❖ Daniel Shriner, The University of Alabama at Birmingham; Nengjun Yi, The University of Alabama at Birmingham

14   Estimating p-Values in Small Microarray Experiments—❖ Hyuna Yang, The Jackson Lab; Gary Churchill, The Jackson Lab

15   Multivariate Simulation of Gene Expression Data—❖ Rudolph Parrish, University of Louisville; Horace J. Spencer, University of Arkansas for Medical Sciences

Government statistics

16   Treating Breaks in Time Series in the Current Employment Statistics State and Area Program—❖ James White, Bureau of Labor Statistics; Kenneth Shipp, Bureau of Labor Statistics

Linear models, GLMs, parametric methods

17   On the Likelihood Ratio Test for the Numbers of Factors in Exploratory Factor Analysis—❖ Kentaro Hayashi, University of Hawaii at Manoa; Peter M. Bentler, University of California, Los Angeles; Ke-Hai Yuan, University of Notre Dame

Logitudinal data, repeated measurements, cluster data

18   GEE Models for Longitudinal Analysis of Long-Term Occupational Radiation Exposures in Russian Nuclear Workers—❖ Adina Soaita, University of Pittsburgh; Ada O. Youk, University of Pittsburgh; Richard Day, University of Pittsburgh; Tamara Azizova, Southern Ural Biophysics Institute; Niel Wald, University of Pittsburgh; Mike Kuniak, University of Pittsburgh; David M. Slaughter, University of Utah; Carol K. Redmond, University of Pittsburgh

19   Antioxidant Use Predicts Transitions to Amnestic MCI and Dementia—❖ Marta Mendiondo, University of Kentucky; Richard J. Kryscio, University of Kentucky; Fred A. Schmitt, University of Kentucky

20   Structural Nested Mean Models for Assessing Time-Varying Effect Moderation: a Comparison of Two

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Estimation Methods—❖ Daniel Almirall, University of Michigan

Neuroscience, brain imaging

21　Methods for Assessing Changes in the FMRI Visual Field Map after Surgery—❖ Raymond G. Hoffmann, Medical College of Wisconsin; Paul Savarapian, Marquette University; Mary Jo Maciejewski, Medical College of Wisconsin; Edward A. DeYoe, Medical College of Wisconsin; Daniel Rowe, Medical College of Wisconsin

Sampling and survey methodology

22　Design-Based versus Model-Based Methods: a Comparative Study Using Longitudinal Survey Data—❖ Sunita Ghosh, University of Saskatchewan; Punam Pahwa, University of Saskatchewan; Geert Molenberghs, Limburgs Universitair Centrum

23　Hierarchical Generalized Linear Models for Data from Complex Sampling Designs—❖ Prabhu Bhagavatheeswaran, Southern Methodist University; Ian Harris, Southern Methodist University

Social and behavioral science

24　Mediation Analysis with Multilevel Data—❖ Jungwha Lee, Institute for Health Research and Policy; Eisuke Segawa, Institute for Health Research and Policy; Sue Curry, University of Illinois at Chicago

Spatial statistics, time series, spatio-temporal modeling

25　The Application of the Kalman Filter to Nonstationary Time Series through Time Deformation—❖ Zhu Wang, Fred Hutchinson Cancer Research Center; Henry L. Gray, Southern Methodist University; Wayne A. Woodward, Southern Methodist University

Teaching, training, consulting

26　Is It Normal? A Simulation Study of Properties of Some Normality Tests—❖ Daniel M. Sultana, California State University, East Bay; Charlyn J. Suarez, California State University, East Bay; Bruce E. Trumbo, California State University, East Bay; Eric A. Suess, California State University, East Bay

27　Classroom Simulation: False Indications of Ouliers in Boxplots of Normal Data—❖ Bruce E. Trumbo, California State University, East Bay; Eric A. Suess, California State University, East Bay; Jacob Colvin, California State University, East Bay

MONDAY, AUGUST 7

Tours

9:00 am–12:00 pm　　　　　CC-Convention Plaza
TR03 - Seattle City Highlights Tour

9:00 am–11:00 am　　　　　CC-Convention Plaza
TR04 - Walking Tour of the Pike Place Market

12:30 pm–4:00 pm　　　　　CC-Convention Plaza
TR05 - Cruise the Locks

Committee/Business Meetings & Other Activities

7:00 am–8:30 am　　　　　S-Douglas Room
Committee on Archives and Historic Materials Annual Business Meeting
Chair(s): Rich Allen, ASA Committee on Archives and History

7:00 am–9:00 am　　　　　CC-302
Committee on Membership Retention and Recruitment Meeting (closed)
Chair(s): Dayanand Naik, Old Dominion University

7:00 am–8:30 am　　　　　H-Douglas Boardroom & Foyer
Social Statistics Section Executive Board Meeting (closed)
Chair(s): Susan Schechter, Office of Management and Budget

7:00 am–8:30 am　　　　　H-Excelsior
Technometrics Management Committee (closed)
Chair(s): Roger W. Hoerl, GE Global Research

7:00 am–11:00 am　　　　　CC-4C-3
JSM 2007 Program Committee Meeting (closed)
Chair(s): Allan Rossman, California Polytechnic State University, San Luis Obispo

7:00 am–8:30 am　　　　　H-Cayuse
ASA-SIAM Series Editorial Board (closed)
Chair(s): Martin T. Wells, Cornell University

7:00 am–8:30 am　　　　　H-Sherman
Survey Review Committee Annual Meeting
Chair(s): Virginia M. Lesser, Oregon State University

7:00 am–8:30 am　　　　　S-Cedar Room
SPAIG Committee Meeting (closed)

Monday

Chair(s): George Williams, Amgen Inc.

7:00 am–8:30 am   H-Portland
JABES Management Committee (closed)
Chair(s): Timothy Gregoire, Yale University

7:00 am–8:30 am   S-Juniper
Section on Statistical Graphics Executive Committee (closed)
Chair(s): Paul Murrell, The University of Auckland

7:00 am–8:30 am   H-Chatham
Section on Government Statistics Executive Committee Meeting
Chair(s): Stephanie Shipp, National Institute of Standards and Technology

7:00 am–8:30 am   H-Blewett Suite
Science Policy Task Force Business Meeting
Chair(s): Virginia A. de Wolf, Consultant

7:00 am–8:30 am   H-Stevens Boardroom & Foyer
ASA-MAA Joint Committee on Undergraduate Statistics Meeting
Chair(s): Madhuri Mulekar, University of South Alabama

7:00 am–8:30 am   H-Discovery
Section on Statistics and the Environment Executive Meeting (closed)
Chair(s): Jay Ver Hoef, National Marine Mammal Lab

7:00 am–8:30 am   S-Everett
Section on Teaching Statistics in the Health Sciences Executive Committee Meeting (closed)
Chair(s): Cynthia Long, Palmer Center for Chiropractic Research

7:00 am–6:00 pm   CC-508
Speaker Work Room

7:00 am–6:00 pm   CC-507
Speaker Work Room

7:00 am–10:00 pm   CC-Level 4 South Lobby
Cyber Center

7:30 am–8:30 am   H-Chinook
Deming Lectureship Committee Business Meeting
Chair(s): Lorraine Denby, Avaya Labs Research

7:30 am–6:00 pm   CC-Level 4 South Lobby
ASA Membership/Special Assistance Desk

7:30 am–6:00 pm   CC-Level 4 South Lobby
JSM Main Registration

7:30 am–9:00 am   S-Admiral
Committee on Minorities in Statistics Business Meeting (closed)
Chair(s): Nagambal Shah, Spelman College

7:30 am–8:30 am   S-Ballard
Council of Chapters International Science and Engineering Fair (ISEF) Breakfast Meeting (closed)
Chair(s): John E. Boyer, Kansas State University

7:30 am–8:30 am   S-Spruce Room
Committee on Professional Ethics
Chair(s): Barbara Bailar, Consultant

7:30 am–9:00 am   S-Aspen Room
Carnegie Mellon Alumni and Faculty Breakfast (closed)
Organizer(s): Margaret Smykla, Carnegie Mellon University

8:00 am–6:00 pm   CC-Exhibit Hall 4B
Career Placement Service

8:00 am–9:30 am   S-Willow A
Communications in Statistics Editorial Meeting (closed)
Organizer(s): Narayanaswamy Balakrishnan, McMaster University

8:00 am–6:00 pm   CC-Exhibit Hall 4A
Exhibitor Lounge

8:30 am–10:00 am   S-Ballard
Council of Chapters Governing Board Planning Meeting (closed)
Chair(s): Ronald Wasserstein, Washburn University

9:00 am–10:00 am   S-Willow B
Transportation Statistics Interest Group Annual Meeting
Organizer(s): Promod Chandhok, Bureau of Transportation Statistics

9:00 am–10:30 am   S-Metropolitan Ballroom B
Academic Program Representatives Meeting (closed)
Chair(s): John Stufken, University of Georgia

Monday

9:00 am–5:00 pm   CC-Level 1
Citywide Concierge Center

9:00 am–6:00 pm   CC-Exhibit Hall 4A
EXPO 2006

9:00 am–5:00 pm   CC-Level 4 South Lobby
ASA Marketplace

9:00 am–10:30 am   H-Excelsior
JASA Editors Meeting (closed)
Chair(s): Mark S. Kaiser, Iowa State University

9:00 am–6:00 pm   CC-Exhibit Hall 4A
ASA Communities Booth #101

10:00 am–12:00 pm   S-Spruce Room
Council of Chapter Governing Board Status Committee Meeting (closed)
Chair(s): Joan Chmiel, Northwestern University

10:00 am–12:00 pm   S-Ballard
Council of Chapters Governing Board Executive Committee Meeting (closed)
Chair(s): Ronald Wasserstein, Washburn University

12:00 pm–5:30 pm   S-Admiral
Council of Chapters Governing Board Meeting (closed)
Chair(s): Ronald Wasserstein, Washburn University

12:30 pm–2:00 pm   H-Discovery
Committee on Gay and Lesbian Concerns in Statistics Meeting
Chair(s): Barry Johnson, Internal Revenue Service

12:30 pm–2:00 pm   S-Aspen Room
Journal of Statistics in Medicine Editorial Board (closed)
Organizer(s): Ralph B. D'Agostino, Boston University

12:30 pm–2:00 pm   CC-302
Section on Statistical Computing Executive Committee (closed)
Chair(s): Stephan Sain, University of Colorado at Denver and Health Sciences Center

12:30 pm–2:00 pm   H-Portland
Section on Bayesian Statistical Science Executive

Committee Meeting (closed)
Chair(s): Dalene Stangl, Duke University

12:30 pm–2:00 pm   H-Princessa II Ballroom
JASA Editorial Board Meeting (closed)
Chair(s): Mark S. Kaiser, Iowa State University

2:00 pm–4:00 pm   H-Excelsior
Finance Committee Meeting (closed)
Chair(s): Sastry Pantula, North Carolina State University

2:00 pm–3:30 pm   S-Cedar Room
Careers in Statistics Panel
Chair(s): Janice Lent, Research and Innovative Technology Administration

4:00 pm–6:00 pm   CC-613
Consortium for the Advancement of Undergraduate Statistics Education Meeting (closed)
Organizer(s): Dennis K. Pearl, The Ohio State University

4:00 pm–5:00 pm   S-Juniper
International Indian Statistical Association Executive Board Meeting
Organizer(s): Hira L. Koul, Michigan State University

5:00 pm–7:00 pm   H-Leonesa Balltoom II
Iowa State University Statistics Alumni Reception (closed)
Organizer(s): Kenneth Koehler, Iowa State University

5:00 pm–7:00 pm   H-Princessa II Ballroom
SSC Reception (all are welcome)
Organizer(s): Charmaine Dean, SSC

5:00 pm–6:30 pm   S-Douglas Room
Journal of Quality Technology Editorial Review Board (closed)
Organizer(s): Enrique del Castillo, Penn State

5:00 pm–6:30 pm   H-Discovery
Section on Quality and Productivity Tactical Planning (closed)
Chair(s): Christine M. Anderson-Cook, Los Alamos National Laboratory

5:00 pm–6:00 pm   H-Blewett Suite
JASA T&M Associate Editors Mixer (closed)
Chair(s): Stephen L. Portnoy, University of Illinois at Urbana-Champaign

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Monday

5:00 pm–7:00 pm   S-Cirrus Ballroom
NISS/SAMSI Reception
Organizer(s): Alan Karr, National Institute of Statistical Sciences

5:00 pm–7:00 pm   S-Willow A
Texas A&M University Reunion (closed)
Organizer(s): Simon Sheather, Texas A&M University

5:00 pm–6:00 pm   CC-604
Medical Devices Special Interest Group Meeting
Chair(s): Estelle Russek-Cohen, U.S. Food and Drug Administration

5:30 pm–7:00 pm   S-Juniper
Section on Statistics in Sports Business Meeting
Chair(s): Phil Everson, Swarthmore College

5:30 pm–7:00 pm   CC-4C-1
Section on Statistics and the Environment Business Meeting and Reception
Chair(s): Jay Ver Hoef, National Marine Mammal Lab

5:30 pm–7:00 pm   S-Aspen Room
IMS Member Reception
Organizer(s): Elyse Gustafson, IMS

5:30 pm–7:00 pm   H-Douglas Boardroom & Foyer
Section on Risk Analysis Business Meeting
Chair(s): Susan Sereika, University of Pittsburgh

5:30 pm–7:00 pm   S-Everett
Social Statistics Section Business Meeting
Chair(s): Susan Schechter, Office of Management and Budget

5:30 pm–7:00 pm   S-Ballard
Section on Statistics in Epidemiology Executive Committee Meeting (closed)
Chair(s): Sander Greenland, University of California, Los Angeles

5:30 pm–7:30 pm   CC-307 & 308
Service-oriented Consulting: What Can Students Do in the Community?
Organizer(s): Gayla R. Olbricht, Purdue University

5:30 pm–7:00 pm   CC-602
Biometrics Section Annual Business Meeting
Chair(s): Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health

5:30 pm–7:00 pm   S-Cedar Room

Section on Teaching Statistics in the Health Sciences Business Meeting and Mixer
Chair(s): Cynthia Long, Palmer Center for Chiropractic Research

5:30 pm–7:00 pm   H-Stevens Boardroom & Foyer
Caucus for Women in Statistics Reception
Organizer(s): Mary W. Gray, American University

5:30 pm–7:00 pm   H-Leonesa Ballroom I
The University of North Carolina at Chapel Hill Department of Biostatistics Alumni Reception
Organizer(s): Michael Kosorok, The University of North Carolina at Chapel Hill

5:30 pm–7:00 pm   S-Governors Suite
ASA/NSF Research Fellowship Reception (closed)
Organizer(s): Carolyn Kesner, American Statistical Association

6:00 pm–9:00 pm   CC-605
Amgen, Inc.(by invitation only)
Organizer(s): Chander Varma, Amgen Inc.

6:00 pm–7:00 pm   CC-4C-3
President's Invited Speaker Reception (by invitation only)
Chair(s): Sallie Keller-McNulty, Rice University

6:00 pm–8:00 pm   H-Cayuse
Section on Survey Research Methods Executive Committee Meeting (closed)
Chair(s): Roger Tourangeau, University of Maryland

6:00 pm–8:00 pm   CC-303
Korean Statisticians Annual Meeting
Organizer(s): Sin-Ho Jung, Duke University

6:00 pm–7:30 pm   S-Metropolitan Ballroom B
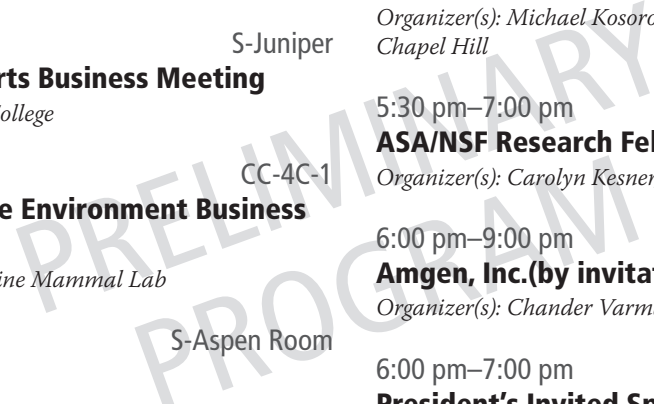**JSM Student Mixer (students only, included in registration fee)**
Chair(s): Dayanand Naik, Old Dominion University

6:00 pm–8:00 pm   S-Willow B
Eli Lilly and Company Faculty Reception (closed)
Organizer(s): Todd Sanger, Eli Lilly and Company

6:00 pm–7:30 pm   CC-601
CDC/ATSDR Statistical Advisory Group Open Meeting
Organizer(s): Timothy Green, Centers for Disease Control and Prevention

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Monday

6:00 pm–7:30 pm   CC-302

Committee on Minorities in Statistics Reception

Chair(s): Nagambal Shah, Spelman College

6:00 pm–7:30 pm   H-Sherman

Committee on Gay and Lesbian Concerns in Statistics Social Meeting (with guest speaker)

Chair(s): Barry Johnson, Internal Revenue Service

6:00 pm–7:00 pm   CC-305

Russian and Former Soviet Union Statisticians Mixer

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

6:30 pm–7:30 pm   S-Metropolitan Ballroom A

ASA Long Time Member Reception (closed)

Chair(s): Dayanand Naik, Old Dominion University

7:00 pm–9:00 pm   CC-607

Merck Research Laboratories Reception (closed)

Organizer(s): Beverly Jacobsen, Merck Research Laboratories

7:30 pm–10:00 pm   S-Douglas Room

Southern Methodist University Alumni Social

Organizer(s): Richard Gunst, Southern Methodist University

7:30 pm–10:00 pm   CC-4C-2

Joint Section on Statistical Graphics and Section on Statistical Computing Business Meeting

Chair(s): Paul Murrell, The University of Auckland; Stephan Sain, University of Colorado at Denver and Health Sciences Center

Continuing Education (Fee Events)

CE_14C   CC-305
8:00 am–12:00 pm

Spatial Survey Design with a Focus on Natural Resources

The ASA, Section on Statistics and the Environment

Instructor(s): Anthony R. Olsen, U.S. Environmental Protection Agency; Donald L. Stevens, Jr., Oregon State University

CE_15C   CC-304
8:00 am–12:00 pm

Analysis of Multivariate Failure Time Data

The ASA, Section on Nonparametric Statistics

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

CE_16C   CC-310
8:30 am–5:00 pm

Multiple Comparisons and Multiple Tests

The ASA

Instructor(s): Peter Westfall, Texas Tech University

CE_17C   CC-309
8:30 am–5:00 pm

Statistical Demography with Applications

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

Instructor(s): Bruce D. Spencer, Northwestern University; Juha M. Alho, University of Joensuu

CE_18C   CC-307 & 308
8:30 am–5:00 pm

Analysis of Clinical Trials: Theory and Applications

The ASA

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

CE_19C   CC-306
8:30 am–5:00 pm

Applied Bayesian Nonparametric Modeling

The ASA, Section on Bayesian Statistical Science

Instructor(s): Alan E. Gelfand, Duke University; Athanasios Kottas, University of California, Santa Cruz

CE_20C   CC-303
8:30 am–5:00 pm

Generalized Linear and Latent Mixed Models

The ASA, Biometrics Section

Instructor(s): Sophia Rabe-Hesketh, University of California, Berkeley; Anders Skrondal, London School of Economics

CE_21C   CC-305
1:00 pm–5:00 pm

Creating More Effective Graphs

The ASA, Section on Statistical Graphics, Section on Statistical Education

Instructor(s): Naomi B. Robbins, NBR

CE_22C   CC-304
1:00 pm–5:00 pm

Optimal Categorization of a Continuous Predictor

The ASA, Biopharmaceutical Section

Instructor(s): Madhu Mazumdar, Weill Medical College of Cornell University; Heejung Bang, Cornell University

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Roundtables with Coffee
7:00 am–8:15 am

77   CC-4C-1
Section on Statistical Consulting Roundtable with Coffee (fee event)

Section on Statistical Consulting

Organizer(s): Wendy Tseng, Procter & Gamble

ML01 Effective Collaboration via Concise Statistical Graphics—❖ Thomas G. Filloon, Procter & Gamble

78   CC-4C-1
Section on Statistical Education Roundtable with Coffee (fee event)

Section on Statistical Education

Organizer(s): Patti Collings, Brigham Young University

ML02 Using Japanese Lesson Study in Teaching Statistics—❖ Robert DelMas, University of Minnesota; Joan Garfield, University of Minnesota

79   CC-4C-1
Section on Statistics and the Environment Roundtable with Coffee (fee event)

Section on Statistics and the Environment

Organizer(s): Peter Guttorp, University of Washington

ML03 Comparison of Laboratory Methods for the Same Chemical—❖ Estelle Russek-Cohen, U.S. Food and Drug Administration

80   CC-4C-1
Section on Statistical Graphics Roundtable with Coffee (fee event)

Section on Statistical Graphics

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

ML04 Graphics for Data Mining—❖ Martin Theus, University of Augsburg

81   CC-4C-1
Section on Physical and Engineering Sciences Roundtable with Coffee (fee event)

Section on Physical and Engineering Sciences

Organizer(s): Winson Taam, The Boeing Company

ML05 Data from Automotive Online Shoppers: Fact, Fiction, or Somewhere in Between?—❖ Lynn Truss, GM Research & Development

82   CC-4C-1
Section on Teaching Statistics in the Health Sciences Roundtable with Coffee (fee event)

Section on Teaching Statistics in the Health Sciences

Organizer(s): Patrick Tarwater, The University of Texas Health Science Center at Houston

ML06 Online-Based Approaches to Statistical Education—❖ John McGready, The Johns Hopkins University

Special Presentation 8:30 am–10:20 am

83   CC-400
● ✪ Introductory Overview Lectures: Statistical Consulting—Other

The ASA, ENAR, IMS, SSC, WNAR, Section on Statistical Consulting, Section on Statistical Education

Organizer(s): Todd Nick, Cincinnati Children's Hospital Medical Center

Chair(s): Todd Nick, Cincinnati Children's Hospital Medical Center

8:35 am   **The Business Side of Consulting**—❖ Susan J. Devlin, The Artemis Group LLC

9:25 am   **Creating Effective Encounters: The Heart of Meeting Global Challenges**—❖ Douglas Zahn, 5x3 Associates

10:15 am   **Floor Discussion**

Invited Sessions 8:30 am–10:20 am

84   CC-614
✪ Statistical Models for Networks—Invited

Chance, Section on Statisticians in Defense and National Security, Section on Physical and Engineering Sciences, Section on Statistical Graphics

Organizer(s): David Banks, Duke University

Chair(s): Michael Lavine, Duke University

8:35 am   **Information Processing in Cellular Networks**—❖ Ravi Iyengar, Mount Sinai School of Medicine; Avi Ma'ayan, Mount Sinai School of Medicine

9:00 am   **Bayesian Solutions to the Degeneracy of Network Models**—❖ Mark S. Handcock, University of Washington; Martina Morris, University of Washington

9:25 am   **Dynamical Analysis of Networks in Neural Systems**—❖ Emery N. Brown, Massachusetts Institute of Technology

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

9:50 am   Disc: Andrew Gelman, Columbia University

10:10 am   **Floor Discussion**

85   CC-213

● Measurement Error Models—Invited

ENAR, Biometrics Section, WNAR

Organizer(s): David Ruppert, Cornell University

Chair(s): Sally W. Thurston, University of Rochester Medical Center

8:35 am   **Semiparametric Methods and the Estimation of Nutrient Intakes—**❖ Raymond J. Carroll, Texas A&M University; Arnab Maity, Texas A&M University; Yanyuan Ma, Texas A&M University

9:00 am   **A Latent Variable Model for Measurement Error Correction Using Replicate Data—**❖ Sohee Park, National Cancer Center, Korea; Louise Ryan, Harvard School of Public Health; David Ruppert, Cornell University; John Meeker, University of Michigan; Russ Hauser, Harvard School of Public Health

9:25 am   **Measurement Error in Population Dynamics Models—**❖ John Staudenmayer, University of Massachusetts; John Buonaccorsi, University of Massachusetts

9:50 am   **Generalized Measurement Error Models and Bias Reduction—**❖ Leonard A. Stefanski, North Carolina State University

10:15 am   **Floor Discussion**

86   CC-608

● Directions for the Second Statistics Course—Invited

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

Organizer(s): Robert Dobrow, Carleton College

Chair(s): Rosemary Roberts, Bowdoin College

8:35 am   **What Should Be the Second Statistics Course?—**❖ Karla V. Ballman, Mayo Clinic College of Medicine

8:55 am   **Methods of Data Analysis: a Second Course in Statistics at Oregon State University—**❖ Fred Ramsey, Oregon State University

9:15 am   **Second Statistics Course at a Liberal Arts College—**❖ Michael Kahn, Wheaton College

9:35 am   **Risky Business: a Second Statistics Course at Business Schools—**❖ Norean R. Sharpe, Babson College; Richard Cleary, Bentley College

9:55 am   **Spanning the Parametric/Nonparametric Divide—**❖ John Holcomb, Jr., Cleveland State University

10:15 am   **Floor Discussion**

87   CC-610

● ✪ Forest Fires and Fish Stocks: Statistics on Long-Term Trends from Lake Sediments and Tree Rings—Invited

SSC, Section on Statistics and the Environment

Organizer(s): Rick Routledge, Simon Fraser University

Chair(s): Rick Routledge, Simon Fraser University

8:35 am   **Patterns of Biological Productivity in Saanich Inlet—**❖ Frank Whitney, Institute of Ocean Sciences; Ann Gargett, Institute of Ocean Sciences; Melissa McQuoid, Institute of Ocean Sciences

9:05 am   **Inference of Past Environmental Changes from Fossil Midges—**❖ Ian Walker, The University of British Columbia

9:35 am   **Forest Fires in Space and Time: Comparing Long Records of Forest Fires To Understand Their Climatic Controls—**❖ Dan Gavin, University of Vermont; Kenneth Lertzman, Simon Fraser University; Feng S. Hu, University of Illinois

10:05 am   **Floor Discussion**

88   CC-201

● ✪ Mining and Exploring Clinical Trials Data: Why, What, and How?—Invited

Biopharmaceutical Section, Committee on Applied Statisticians, Section on Statistical Consulting, ENAR, Section on Statistical Graphics

Organizer(s): Mani Lakshminarayanan, Pfizer Inc.

Chair(s): Mani Lakshminarayanan, Pfizer Inc.

8:35 am   **Secondary Analysis of Clinical Trials and Claims Data for Risk Minimization and Outcomes Evaluation—**❖ Michael O'Connell, Insightful Corporation

9:00 am   **Data Mining Trees: Mining Clinical Trials Data—**❖ Javier Cabrera, Rutgers University

9:25 am   **Logistic Regression on Autopilot—**❖ Trevor Hastie, Stanford University

9:50 am   Disc: Ana Szarfman, U.S. Food and Drug Administration

10:10 am   **Floor Discussion**

Monday

89   CC-602
● ✪ Statistics and the Millennium Development Goals—Invited

Section on Government Statistics

Organizer(s): Jana L. Asher, American Association for the Advancement of Science

Chair(s): Susan Hinkins, NORC

8:35 am	**The Role of Monitoring and Evaluation in Development Programs**—❖ Paul Wassenich, Inter-American Development Bank
9:00 am	**Statisticians and the Millennium Development Goals**—❖ Paul Fields, Brigham Young University
9:25 am	**A Role for Experimental Evaluation in Efforts To Achieve Millennium Development Goals**—❖ David J. Fitch, Universidad del Valle de Guatemala
9:50 am	Disc: Fritz J. Scheuren, NORC
10:10 am	**Floor Discussion**

90   CC-4C-4
Semisupervised Learning—Invited

IMS, Biometrics Section, Section on Nonparametric Statistics

Organizer(s): Yoonkyung Lee, The Ohio State University

Chair(s): Yoonkyung Lee, The Ohio State University

8:35 am	**Semisupervised Learning: an Overview**—❖ Xiaojin Zhu, University of Wisconsin-Madison
9:05 am	**Statistical and Geometric Principles of Semisupervised Learning**—❖ Mikhail Belkin, The Ohio State University
9:35 am	**Variable Selection for Semisupervised Learning**—❖ Elizaveta Levina, University of Michigan; Ji Zhu, University of Michigan
10:05 am	**Floor Discussion**

91   CC-615
● ✪ Some Current Issues in Industrial Statistics—Invited

Section on Physical and Engineering Sciences

Organizer(s): Luis A. Escobar, Louisiana State University

Chair(s): Luis A. Escobar, Louisiana State University

8:35 am	**Use of Computer Simulation To Plan Complicated Industrial Experiments**—❖ William Q. Meeker, Jr., Iowa State University
9:05 am	**Forecasting Warranty Claims**—Jerald F. Lawless, University of Waterloo; ❖ Marc Fredette, HEC Montréal

9:35 am	**Degradation-Based Models for Analyzing Repairable Systems**—❖ Vijay Nair, University of Michigan; Anupap Somboonsavatdee, University of Michigan; Ananda Sen, University of Michigan
10:05 am	**Floor Discussion**

92   CC-205
Recent Advances in Design and Analysis of Vaccine Studies—Invited

Biometrics Section, ENAR, WNAR

Organizer(s): M. Elizabeth Halloran, Fred Hutchinson Cancer Research Center

Chair(s): M. Elizabeth Halloran, Fred Hutchinson Cancer Research Center

8:35 am	**On Estimation of Vaccine Efficacy Using Validation Samples with Selection Bias**—❖ Michael Daniels, University of Florida; Daniel Scharfstein, Johns Hopkins Bloomberg School of Public Health; M. Elizabeth Halloran, Fred Hutchinson Cancer Research Center; Haitao Chu, Johns Hopkins Bloomberg School of Public Health
9:00 am	**Accounting for Variability in Sample Size Estimation with Application to a Malaria Vaccine Phase 2 Trial**—❖ Michael P. Fay, National Institute of Allergy and Infectious Diseases; M. Elizabeth Halloran, Fred Hutchinson Cancer Research Center; Dean A. Follmann, National Institute of Allergy and Infectious Diseases
9:25 am	**Statistical Methods for Assessing HIV Vaccine Efficacy in Repeated Low-Dose Challenge Experiments**—❖ Michael G. Hudgens, The University of North Carolina at Chapel Hill; Peter Gilbert, Fred Hutchinson Cancer Research Center/University of Washington
9:50 am	Disc: Thomas A. Louis, The Johns Hopkins University
10:10 am	**Floor Discussion**

93   CC-619
● ✪ Statistical and Computational Issues in Climate Research—Invited

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

Organizer(s): Donald B. Percival, University of Washington

Chair(s): Donald B. Percival, University of Washington

8:35 am	**Statistical Analysis of Spatial Patterns of Climate Variability**—❖ J. Michael Wallace, University of

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Washington

9:00 am   **Interpreting Recent Climate Change**—❖ Francis W. Zwiers, Canadian Centre for Climate Modelling and Analysis

9:25 am   **Statistical Problems in Climate Change and Geophysical Fluids**—❖ Carl Wunsch, Massachusetts Institute of Technology

9:50 am   Disc: Richard L. Smith, The University of North Carolina at Chapel Hill

10:10 am   **Floor Discussion**

94   CC-612
● ✪ SAMSI Session on Statistical Issues in Metabolomics—Invited

Statistical and Applied Mathematical Sciences Institute, Biometrics Section

Organizer(s): James Berger, SAMSI; David Banks, Duke University

Chair(s): James Berger, SAMSI

8:35 am   **Measurement Issues in Metabolomics Data**—❖ Xiaodong Lin, University of Cincinnati

9:00 am   **Exploring a Complex Metabolomics Dataset**—❖ Susan J. Simmons, The University of North Carolina at Wilmington; Xiaodong Lin, University of Cincinnati

9:25 am   **Pathway-Based Analysis of Metabolic Profiles**—❖ Jacqueline Hughes-Oliver, North Carolina State University

9:50 am   Disc: Clifford Spiegelman, Texas A&M University

10:10 am   **Floor Discussion**

Topic-Contributed Sessions
8:30 am–10:20 am

95   CC-203
● ✪ Design and Analysis in Medical Devices—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Zhen Huang, Duke Clinical Research Institute; Greg Campbell, U.S. Food and Drug Administration

Chair(s): Shein-Chung Chow, Duke University

8:35 am   **Hypothesis Testing in Clinical Study with Mixed Patient Population**—❖ Yonghong Gao, U.S. Food and Drug Administration; Chul H. Ahn, U.S. Food and Drug Administration

8:55 am   **Placebo Control Group in Medical Device Clinical**

Trials—❖ Sarah Kogut, W.L. Gore & Associates, Inc.

9:15 am   **To Pair or Not To Pair? Noninferiority Test for the Difference in Correlated Binary Outcomes**—❖ Dong Li, Guidant Corporation; David Breiter, Guidant Corporation; Shu Han, Guidant Corporation; Jia Wang, Guidant Corporation

9:35 am   **Covariate-Adjusted Noninferiority Tests with Binary Endpoints**—❖ Lei Peng, Guidant Corporation

9:55 am   **Noninferiority Testing with a Variable Margin**—❖ Zhiwei Zhang, U.S. Food and Drug Administration

10:15 am   **Floor Discussion**

96   CC-609
● ✪ Modeling and Testing of Economic Time Series—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Stuart Scott, Bureau of Labor Statistics

Chair(s): Stuart Scott, Bureau of Labor Statistics

8:35 am   **Cost-of-Living Index Based on an Estimated Variable Elasticity of Substitution Utility Function**—❖ Peter Zadrozny, Bureau of Labor Statistics

8:55 am   **Stochastic Volatility and Cointegration in Statistics Canada's Retail Trade Series**—❖ Thierno A. Balde, Statistics Canada; Ioana Schiopu-Kratina, Statistics Canada; Benoit Quenneville, Statistics Canada

9:15 am   **Model-Based Formulas for Growth Rates and Their Standard Errors**—❖ Tucker S. McElroy, U.S. Census Bureau

9:35 am   **Measuring Trend Growth Rates with an Application to Consumer Prices**—❖ Peter Kenny, PBK Research

9:55 am   **Adjustment of Data from Period Reporters in Estimates of Monthly Retail Trade**—❖ Donald Martin, U.S. Census Bureau; David Findley, U.S. Census Bureau

10:15 am   **Floor Discussion**

97   CC-214
● ✪ Statistical Approaches to Assess Ethnic Differences: Impact on Drug Development—Topic-Contributed

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

ENAR

Organizer(s): Yoko Tanaka, Eli Lilly and Company

Chair(s): Ji Zhang, sanofi-aventis

8:35 am   **Design and Analysis for Showing the Similarity of Drug Efficacy between Two Clinical Studies**—❖ Yoshiharu Horie, Nippon Boehringer Ingelheim Co., Ltd.; Hajime Uno, Kitasato University; Masahiro Takeuchi, Kitasato University

8:55 am   **Evaluation of Treatment-Country Interaction in Global Clinical Trials**—❖ Hajime Uno, Kitasato University; Yoshiharu Horie, Nippon Boehringer Ingelheim Co., Ltd.; Masahiro Takeuchi, Kitasato University

9:15 am   **Minority Differences in Cancer Survival on Cooperative Group Clinical Trials**—❖ Beow Yeap, Harvard Medical School/Massachusetts General Hospital; Marvin Zelen, Harvard School of Public Health

9:35 am   **Delivering Robust Outcomes from Multiregional Clinical Trials**—❖ Yoko Tanaka, Eli Lilly and Company

9:55 am   **Statistical and Related Issues of Global Drug Development: Experience in the PMDA Consultation Meetings**—❖ Yuki Ando, Pharmaceuticals and Medical Devices Agency

10:15 am   **Floor Discussion**

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98   CC-618

✪ Prediction and Detection in Defense and Homeland Security Applications—Topic-Contributed

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

Organizer(s): Michael Porter, University of Virginia

Chair(s): Michael Porter, University of Virginia

8:35 am   **Geospatial Modeling in an Information Theoretic Framework as Applied to Forecasting of Insurgent Activity**—❖ Jason Dalton, Spatial Data Analytics Corporation

8:55 am   **Signal Detection in Radiation Portal Monitoring Data**—❖ Tom Burr, Los Alamos National Laboratory; Jim Gattiker, Los Alamos National Laboratory; George Tompkins, Los Alamos National Laboratory

9:15 am   **Cokriging with Generalized Cross-Covariances for Detecting Radioactivity**—❖ Chunfeng Huang, The Ohio State University; Noel Cressie, The

Ohio State University; Yonggang Yao, The Ohio State University; Tailen Hsing, The Ohio State University

9:35 am   **Monitoring Safety of Food Supply by Analyzing Consumer Complaints**—❖ Artur Dubrawski, Carnegie Mellon University; Maheshkumar Sabhnani, Carnegie Mellon University; Andrew Moore, Carnegie Mellon University

9:55 am   **Logistic Joinpoint Models with Applications in Criminal Processes**—❖ Ryan Gill, University of Louisville

10:15 am   **Floor Discussion**

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99   CC-2A

● Competing Risk Events in Cancer Epidemiology—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Organizer(s): Mousumi Banerjee, University of Michigan

Chair(s): Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center

8:35 am   **Competing Risks Models in the Monogenic Cancer Susceptibility Syndromes**—❖ Philip S. Rosenberg, National Cancer Institute

8:55 am   **Analyzing Survival Data with Competing Risks**—❖ Leah Ben-Porat, Memorial Sloan-Kettering Cancer Center; Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center

9:15 am   **Bayesian Competing Risks Analysis of Cancer Survival Data from the SEER Program**—❖ Sanjib Basu, Northern Illinois University; Ram Tiwari, National Institutes of Health

9:35 am   **Competing Risks Analysis in Breast Cancer with Missing Cause of Death**—❖ Mousumi Banerjee, University of Michigan; Ananda Sen, University of Michigan

9:55 am   **Development of Cohort Life Tables for 'Other Causes' for Use in Simulation Modeling**—❖ Marjorie Rosenberg, University of Wisconsin-Madison

10:15 am   **Floor Discussion**

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100   CC-3B

● Bayesian Models in Finance—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Refik Soyer, The George Washington University

Chair(s): Alaattin Erkanli, Duke University Medical Center

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

8:35 am	**Bayesian Forecasting of Prepayment Rates for Individual Pools of Mortgages—**❖ Ivilina Popova, Seattle University; Elmira Popova, The University of Texas at Austin; Edward I. George, University of Pennsylvania
8:55 am	**Bayesian Inference for Derivative Prices—**❖ Jonathan Stroud, University of Pennsylvania; Nicholas Polson, The University of Chicago
9:15 am	**Reliability and Survival in Financial Risk—**❖ Nozer Singpurwalla, The George Washington University
9:35 am	**A Computational Approach to Bayesian Portfolio Selection—**❖ Refik Soyer, The George Washington University
9:55 am	**Floor Discussion**

101   CC-3A
Inference for Dynamic Graphical Models—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Makram Talih, City University of New York-Hunter College

Chair(s): Chris Volinsky, AT&T Labs-Research

8:35 am	**Stochastic ARMA Models—**❖ Bo Thiesson, Microsoft Research; Jesper Lind, Microsoft Research; David M. Chickering, Microsoft Research; David Heckerman, Microsoft Research; Christopher Meek, Microsoft Research
8:55 am	**Strategies for Online Inference with Dynamic Graphs—**❖ Makram Talih, City University of New York-Hunter College
9:15 am	**Network-Based Marketing—**❖ Shawndra Hill, New York University; Chris Volinsky, AT&T Labs-Research; Foster Provost, New York University
9:35 am	**Bayesian Analysis of Longitudinal Binary Data Using Markov Regression Models with Skewed Links—**Seongho Song, University of Cincinnati; ❖ Younshik Chung, Pusan National University; Dipak Dey, University of Connecticut; Alaattin Erkanli, Duke University Medical Center
9:55 am	Disc: Kevin Murphy, The University of British Columbia
10:15 am	**Floor Discussion**

Topic-Contributed Panels

8:30 am–10:20 am

102   CC-607
● Finite Population Correction Factors—Topic-Contributed

Section on Survey Research Methods

Organizer(s): Gary Shapiro, Westat

Chair(s): Gary Shapiro, Westat

Panelists:	❖ Wayne Fuller, Iowa State University
	❖ Keith Rust, Westat/University of Maryland
	❖ Phillip S. Kott, National Agricultural Statistics Service
	❖ Barry I. Graubard, National Cancer Institute
	❖ S. Lynne Stokes, Southern Methodist University
10:15 am	**Floor Discussion**

Regular Contributed Sessions
8:30 am–10:20 am

103   CC-206
● Advances in Variable Selection—Contributed

Biometrics Section

Chair(s): Qin Yu, University of Rochester

8:35 am	**Bayesian Variable Selection in Cox Models—**❖ Naijun Sha, The University of Texas at El Paso; Mahlet G. Tadesse, University of Pennsylvania; Marina Vannucci, Texas A&M University
8:50 am	**FSR Methods in the Cox Proportional Hazards Model—**❖ Yun Chen, North Carolina State University; Dennis A. Boos, North Carolina State University; Leonard A. Stefanski, North Carolina State University
9:05 am	**Variable Selection in Linear Mixed Models for Longitudinal Data—**❖ Lan Lan, North Carolina State University; Daowen Zhang, sanofi-aventis; Hao Zhang, North Carolina State University
9:20 am	**Variable Selection with Penalized GEE—**❖ John Dziak, Penn State
9:35 am	**Adaptive-LASSO for Cox's Proportional Hazards Model—**❖ Wenbin Lu, North Carolina State University; Hao Zhang, North Carolina State University
9:50 am	**The LASSO Method for Variable Selection for**

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Monday

Right-Censored Data—❖ Lili Yu, The Ohio State University; Dennis K. Pearl, The Ohio State University

10:05 am **Floor Discussion**

104 CC-211

● **Proteomics—Contributed**
Biometrics Section, ENAR

Chair(s): Jeanette E. Eckel-Passow, Mayo Clinic College of Medicine

8:35 am **Design and Analysis of Experiments in Proteomics—**❖ John Aleong, University of Vermont

8:50 am **Logistic and Probit Regression Modelling of Proteomic Mass Spectra in a Case Control Study on Diagnosis for Colon Cancer. —**❖ Bart Mertens, Leiden University Medical Center

9:05 am **Preprocessing Method and Nested Cross-Validation Classification of Lung Cancer Using Mass Spectrometry Proteomics—**❖ Jingjing Ye, University of California, Davis

9:20 am **Statistical Approaches to Discovery of Biomarkers for Early Detection of Cancer Using LC-MS/MS—**❖ Xiaochun Li, Dana-Farber Cancer Institute; Meredith A. Goldwasser, Dana-Farber Cancer Institute

9:35 am **Statistical Methods for Protein Interactions Predictions—**❖ Inyoung Kim, Yale University; Yin Liu, Yale University; Hongyu Zhao, Yale University

9:50 am **Multi-Dimensional NMR Spectra Identification for Protein Structure Determination—**❖ Nicoleta Serban, Georgia Institute of Technology

10:05 am **Inferring Protein Associations Using Protein Pull-Down Assays—**❖ Julia Sharp, Montana State University; Kevin K. Anderson, Pacific Northwest National Laboratory; Don S. Daly, Pacific Northwest National Laboratory; Deanna L. Auberry, Pacific Northwest National Laboratory; John Borkowski, Montana State University; William R. Cannon, Pacific Northwest National Laboratory

105 CC-603

Salient Variables for Select Research Populations—Contributed
Social Statistics Section

Chair(s): Jennifer Madans, National Center for Health Statistics

8:35 am **Is There Evidence of Racial Bias for the Federal Death Sentence?—**❖ Matthias Schonlau, RAND Corporation

8:50 am **A Measure of Intergroup Discrimination Other Than the Difference between Median Wage Incomes—**❖ John Angle, Economic Research Service

9:05 am **Missing Value Imputation and Weights Adjustment for Binary Variables—**❖ Mingue Park, University of Nebraska-Lincoln; David Johnson, University of Nebraska-Lincoln

9:20 am **The Analysis of Seasonal Variations in Vital Statistics in Croatia: Two Approaches—**❖ Ante Rozga, University of Split; Zeljko Banovic, T-Com Croatia

9:35 am **Mixtures of Regressions—**❖ Derek Young, Penn State

9:50 am **Joint Modeling of Quality of Life and Disease Progression—**❖ Rebecca Hubbard, University of Washington; Lurdes Y. T. Inoue, University of Washington

10:05 am **Detecting Bias in Jury Selection—**❖ Bruce Barrett, The University of Alabama

106 CC-604

● **Sample Survey Quality II—Contributed**
Section on Survey Research Methods

Chair(s): Rachel Harter, NORC

8:35 am **Analysis of Inconsistency in Coverage Estimates for Children in the 2000 Census—**❖ Andrew Keller, U.S. Census Bureau

8:50 am **Difficulties and Solutions for Surveying Refugees: Bosnian Refugees in St. Louis—**❖ Kevin McIntyre, Saint Louis University; Hisako Matsuo, Saint Louis University; Terry Tomazic, Saint Louis University

9:05 am **Residential Address Lists vs. Traditional Listing: Enumerating Households and Group Quarters—**❖ Sylvia Dohrmann, Westat; Daifeng Han, Westat; Leyla Mohadjer, Westat

9:20 am **Employment in Nonprofit Entities: Coverage, Bias, and Measurement Errors in QCEW and Public IRS Information, 1999–2003—**❖ Martin David, Urban Institute

9:35 am **Use of Administrative Data To Explore Effect of Establishment Nonresponse Adjustment on the National Compensation Survey Estimates—**❖

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Chester Ponikowski, Bureau of Labor Statistics; Erin E. McNulty, Bureau of Labor Statistics

9:50 am **Does a Final Coverage Check Reduce Census Coverage Errors?**—❖ Elizabeth Martin, U.S. Census Bureau; Don Dillman, Washington State University

10:05 am **Nonresponse Bias Analysis in the 2003 National Survey of Recent College Graduates**—❖ Aref Dajani, U.S. Census Bureau; Jerry J. Maples, U.S. Census Bureau ; Ronald S. Fecso, National Science Foundation

107 CC-606
● **Unit Nonresponse in Surveys II—Contributed**
Section on Survey Research Methods
Chair(s): Thanh Lí, Westat

8:35 am **Modeling the Relationship between Cell Phone Usage and RDD Contact Effort**—❖ Joseph Sakshaug, University of Michigan

8:50 am **Web versus Email Data Collection: Experience in the Current Employment Statistics Program**—❖ Richard Rosen, Bureau of Labor Statistics; Antonio Gomes, Bureau of Labor Statistics; Louis Harrell, Bureau of Labor Statistics; Jason Chute, Bureau of Labor Statistics; Hong Yu, Bureau of Labor Statistics

9:05 am **Effects of Incentives in the U.S. Consumer Expenditures Quarterly Survey**—❖ David McGrath, BAE Systems/BLS

9:20 am **Indirect Monetary Incentives with a Complex Agricultural Establishment Survey**—❖ Daniel Beckler, National Agricultural Statistics Service; Kathleen Ott, National Agricultural Statistics Service

9:35 am **A Study of Nonrespondents in the Canadian Vehicle Survey**—❖ Martin Beaulieu, Statistics Canada; Francois Gagnon, Statistics Canada

9:50 am **The Impact of Questionnaire Length on Economic Census Return Rates**—❖ Diane K. Willimack, U.S. Census Bureau

10:05 am **Respondents Reasons for Participation in Telephone Surveys**—❖ Nadra Garas, American University; Johnny Blair, Abt Associates Inc.

108 CC-2B
● ✪ **Genetic Interactions/Genetic Imprinting—**

Contributed
Section on Statistics in Epidemiology, Biometrics Section, ENAR
Chair(s): Sanjay Shete, M. D. Anderson Cancer Center

8:35 am **Case-Control Studies of Haplotype Environment Interactions with Genetic Misclassification**—❖ Christine Spinka, University of Missouri-Columbia; Raymond J. Carroll, Texas A&M University; Nilanjan Chatterjee, National Cancer Institute

8:50 am **Strategy for Analyzing Multifactorial Epidemiological Data Involving Host, Genetic, and Environmental Factors**—❖ John Molitor, University of Southern California

9:05 am **A Tree-Based Regression Model for Exploring Complex Gene-Gene and Gene-Environment Interactions**—❖ Jinbo Chen, University of Pennsylvania; Terry M. Therneau, Mayo Clinic College of Medicine

9:20 am **Genetic Interaction Networks in Association Studies of Complex Diseases**—❖ Momiao Xiong, The University of Texas Health Science Center at Houston

9:35 am **Estimation of Gene by Exposure Interactions in Case-Parent Triad Studies**—❖ Tracy Bergemann, University of Minnesota

9:50 am **Linkage Analysis of Affected Sib Pairs Allowing for Parent-of-Origin Effects: Multilocus Trait Models**—❖ Chih-Chieh Wu, M. D. Anderson Cancer Center; Sanjay Shete, M. D. Anderson Cancer Center

10:05 am **Testing for Genomic Imprinting Using Relative Pairs**—❖ Wei Guo, The University of Hong Kong; Wing K. Fung, The University of Hong Kong

109 CC-611
● **Nonstandard Regression and Correlation Problems with Environmental Data—Contributed**
Section on Statistics and the Environment, WNAR
Chair(s): Bahman Shafii, University of Idaho

8:35 am **Over-Estimation of Trend Caused by Negative Binomial Regression Fit to Zero-Inflated Count Data**—❖ Mihoko Minami, The Institute of Statistical Mathematics

8:50 am **Estimating Correlation with Multiply Censored Data**—❖ Elizabeth Newton, Silent Spring Institute; Ruthann Rudel, Silent Spring Institute

9:05 am **Bayesian Modeling for Ordinal Substrate Size**

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Monday

Using EPA Stream Data—❖ Megan Dailey Higgs, Colorado State University; Jennifer A. Hoeting, Colorado State University; Brian Bledsoe, Colorado State University

9:20 am **Empirical Evaluation of Sufficient Similarity in Dose-Responsiveness for Environmental Risk Assessment of Chemical Mixtures—**❖ LeAnna G. Stork, Monsanto Company; Chris Gennings, Virginia Commonwealth University; W. Hans Carter, Jr., Virginia Commonwealth University; Linda Teuschler, U.S. Environmental Protection Agency; Edward W. Carney, The Dow Chemical Company

9:35 am **Developing a Worldwide Botanical Database: Factors That Predict the Overlap of Collectors at Herbaria—**❖ Cathy Furlong, FCPS/American University

9:50 am **Semiparametric Composite Likelihood Inference in Spatial Generalized Linear Mixed Models—**❖ Tatiyana Apanasovich, Cornell University

10:05 am **Search for Multivariate Structure for EMAP Fish Data Using Partition Modeling Approach—**❖ Feng Gao, Virginia Tech; Eric P. Smith, Virginia Polytechnic Institute and State University; Samantha C. Prins, Virginia Tech

110 CC-613

● Statistical Applications in Hydrology and Geosciences—Contributed

Section on Statistics and the Environment, Section on Physical and Engineering Sciences, WNAR

Chair(s): Bruce A. Craig, Purdue University

8:35 am **Nonparametric Transfer Function Models for Hydrological Forecasting—**❖ Heung Wong, The Hong Kong Polytechnic University

8:50 am **Testing Outliers Using a Mixture Population when some data are missing and training data are unlabeled—**❖ Aruna Saram, Sam Houston State University; Ferry Butar Butar, Sam Houston State University

9:05 am **State-Space Models for Within-Stream Network Dependence—**❖ William Coar, Colorado State University; F. Jay Breidt, Colorado State University

9:20 am **Estimation of Space-Time Branching Process Models in Seismology Using an EM-Type Algorithm—**❖ Alejandro Veen, IBM T. J. Watson Research Center; Frederic P. Schoenberg,

University of California, Los Angeles

9:35 am **Robust Estimation for Periodic Autoregressive Time Series—**❖ Qin Shao, The University of Toledo

9:50 am **Functional Clustering of Water Pressure Data—**❖ Snehalata Huzurbazar, University of Wyoming

10:05 am **Circulant Embedded Extended CAR Models for Large Spatial Data—**❖ Ernst Linder, University of New Hampshire

111 CC-210

Prediction and Classification in Genetics and Analysis of Phylogenetic Trees—Contributed

Biometrics Section, ENAR

Chair(s): Song Wu, University of Florida

8:35 am **Boosting Nearest Shrunken Centroid Classifier for Microarray Data—**❖ Baolin Wu, University of Minnesota

8:50 am **Robust-Affected Sib Pair Linkage Analysis for a Stratified Sample—**❖ Guan Xing, Case Western Reserve University; Tao Wang, Case Western Reserve University; Robert C. Elston, Case Western Reserve University; J. S. Rao, Case Western Reserve University

9:05 am **Application of Bayesian Logistic Regression on Gene Expression Prediction—**❖ Yuan Yuan, Harvard University; Lei Guo, Harvard University; Lei Shen, GlaxoSmithKline; Jun Liu, Harvard University

9:20 am **Statistical Learning for Analyzing Functional Genomic Data—**❖ Axel Benner, German Cancer Research Center; Carina Ittrich, German Cancer Research Center

9:35 am **Nonnegative Matrix Factorization: a New Paradigm for Large-Scale Biological Data Analysis—**❖ Karthik Devarajan, Fox Chase Cancer Center

9:50 am **A Two-Stage Peeling Algorithm and Its Applications to Phylogeny—**❖ Arindam RoyChoudhury, University of Washington; Joseph Felsenstein, University of Washington; Elizabeth A. Thompson, University of Washington

10:05 am **Phylogeography of Modern Africa Gorillas Using MCMC—**❖ Joungyoun Kim, University of Wisconsin-Madison

Monday

112 — CC-204
● Bayesian Methods in Biopharmaceuticals—Contributed

Biopharmaceutical Section, Biometrics Section, Section on Bayesian Statistical Science, ENAR

Chair(s): Priya Kulkarni, Merck Research Laboratories

8:35 am **Bayesian Adaptive Noninferiority Assessment with Safety Measure**—❖ Melissa Spann, Eli Lilly and Company; Stacy Lindborg, Eli Lilly and Company; John W. Seaman, Baylor University

8:50 am **Bayesian Sequential Analysis for Survival Data**—❖ Lili Zhao, The University of Iowa; George G. Woodworth, The University of Iowa

9:05 am **Bayesian Approach for Predicting the Margin of Safety in Nonclinical Safety Assessment Studies: a Case Study**—❖ Gheorghe Doros, ; Viencent Reynolds, Eli Lilly and Company; Eyas Aby-Raddad, Eli Lilly and Company

9:20 am **Bayesian and Composite Designs for Drug Combination Studies**—❖ Yuehui Wu, GlaxoSmithKline; Vladimir Dragalin, GlaxoSmithKline; Vlareii Fedorov, GlaxoSmithKline

9:35 am **A Bayesian Simulation-Based Approach in Investigating Physiologically-Based Drug-Drug Interaction Prediction**—❖ Zhiping Wang, Indiana University Purdue University Indianapolis; Lang Li, Indiana University; Stephen Hall, Indiana University

9:50 am **Bayesian Adaptive Dose Selection**—Melissa Spann, Eli Lilly and Company; ❖ David Manner, Eli Lilly and Company; John W. Seaman, Baylor University

10:05 am **Predicting Phase III Trial**—❖ Madhuja Mallick, Merck Research Laboratories; Bret Musser, Merck Research Laboratories

113 — CC-212
● Diagnostic Tests and Cancer Screening—Contributed

Biometrics Section, Section on Health Policy Statistics, ENAR

Chair(s): John M. Williamson, Centers for Disease Control and Prevention

8:35 am **Bootstrap Confidence Intervals for the Area under the ROC Curve**—❖ Gengsheng Qin, Georgia State University; Lejla Hotilovac, Georgia State University

8:50 am **Analysis of Medical Diagnostic Test Data with a Test Ignorance Region**—❖ Andrzej Kosinski, Duke University

9:05 am **Skill Curves: a New Method for Evaluating Diagnostic Tests**—Russell Zaretzki, University of Tennessee; ❖ William M. Briggs, Weill Medical College of Cornell University

9:20 am **Incorporation of Metabolic Insight into Analysis of High-Dimensional Structural Lipid Datasets**—❖ Michelle Wiest, Lipomics Technologies, Inc.; UyenThao Nguyen, Lipomics Technologies, Inc.; Aldo Bernasconi, Lipomics Technologies, Inc.

9:35 am **Challenges for Statisticians in Cervical Cancer Screening Research**—❖ Jong Soo Lee, M. D. Anderson Cancer Center

9:50 am **Quantitative Impact of Length-Biased Sampling in Cancer Screening**—❖ Sonya Heltshe, University of Colorado at Denver and Health Sciences Center; Karen Kafadar, University of Colorado

10:05 am **Bayesian Inference for the Lead Time in Periodic Cancer Screening**—❖ Dongfeng Wu, Mississippi State University; Gary L. Rosner, M. D. Anderson Cancer Center; Lyle D. Broemeling, M. D. Anderson Cancer Center

114 — CC-620
Estimation—Contributed

Section on Statistical Computing

Chair(s): Andrzej Galecki, University of Michigan

8:35 am **The Gentle Side of Kalman Filtering**—❖ Yolanda Munoz Maldonado, The University of Texas School of Public Health

8:50 am **On Some Aspects of Estimation of a Common Mean of Two Independent Normal Populations**—❖ Pranab Mitra, University of Maryland Baltimore County

9:05 am **A Comparison Study of Procedures for Estimating the Tail Index of Heavy-Tailed Distributions**—❖ Bruno C. de Sousa, Universidade do Minho; George Michailidis, University of Michigan

9:20 am **Estimation of the Parameter of the Skewed Double Exponential Distributions**—❖ Keshav Jagannathan, Coastal Carolina University

9:35 am **A Note on the Estimation of Extreme Value Distributions Using Maximum Product of Spacings**—❖ Tony Siu Tung Wong, The University of Hong Kong; Wai K. Li, The

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University of Hong Kong

9:50 am   **Inference on the Mean Parameter of the Skewed Distribution**—❖ Toshinari Kamakura, Chuo University

10:05 am   **Comparing Ratio Estimators Based on Systematic Samples**—❖ Hasan Hamdan, James Madison University

115   CC-605
● **Statistical Methods and Applications—Contributed**

General Methodology

Chair(s): Lori Dodd, National Cancer Institute

8:35 am   **On the Stability of Statistical Tests**—❖ Daniele De Martini, Universit‡ del Piemonte Orientale

8:50 am   **A Test of Independence in Two-Way Contingency Tables Based on Maximal Correlation**—❖ Deniz Yenigun, Bowling Green State University; Gabor Szekely, Bowling Green State University

9:05 am   **Multiple Comparison Procedures**—❖ Yan Li, The Pennsylvania State University

9:20 am   **Using Permutation Tests To Study Infant Handling by Female Baboons**—❖ Thomas Moore, Grinnell College; Vicki Bentley-Condit, Grinnell College

9:35 am   **Selection Bias Due to Immigration in Pharmacoepidemiologic Studies**—❖ Henrik Stovring, University of Southern Denmark

9:50 am   **Playing Fast and Loose with Time and Space: Statistics in Forensic Science**—❖ Max Houck, West Virginia University

10:05 am   **Identifying and Interpreting Regional Convergence Clusters across Europe: Asymptotic versus Boostrapped Inference**—❖ Luisa Corrado, University of Cambridge; Melvyn Weeks, University of Cambridge

116   CC-401
Frontiers in Bioinformatics—Contributed

IMS, Biometrics Section, ENAR

Chair(s): Biao Xing, Genentech, Inc.

8:35 am   **Nonparametric Functional Mapping of Quantitative Trait Loci with Incomplete Genotypic Data**—❖ Jie Yang, University of Florida; George Casella, University of Florida

8:50 am   **Context-Dependent Models for Discovery of Transcription Factor Binding Sites**—❖ Chuancai

Wang, Penn State; Jun Xie, Purdue University; Bruce A. Craig, Purdue University

9:05 am   **Estimating the Variation in S Phase Duration Using Branching Processes**—❖ Sara Larsson,

9:20 am   **Determination of Differentially Expressed Features in a Combined LC-MS and LC-MS/MS Proteomics Work Flow**—❖ Olga Vitek, Institute for Systems Biology; Andrew Garbutt, Institute for Systems Biology; Ruedi Aebersold, Institute for Molecular Systems Biology

9:35 am   **Estimation of Variance in Two-Way Semilinear Models**—❖ Weihua Tang, Rutgers University; Jian Huang, The University of Iowa; Cun-Hui Zhang, Rutgers University

9:50 am   **Treating Expression Levels of Different Genes as a Sample: Does It Do a Good Job?**—❖ Andrei Yakovlev, University of Rochester; Lev Klebanov, Charles University

10:05 am   **Model-Based Analysis of Tiling-Arrays for ChIP-chip**—❖ William Evan Johnson, Harvard University; Wei Li, Dana Farber Cancer Institute; Clifford Meyer, Dana Farber Cancer Institute; X. Shirley Liu, Dana Farber Cancer Institute

117   CC-601
Frames—Contributed

Section on Government Statistics

Chair(s): Leonard Gaines, Empire State Development

8:35 am   **A Confidence Set for Estimates from Data Collected Using Double Sampling**—❖ Zhanyun Zhao, Mathematica Policy Research, Inc.; John Hall, Mathematica Policy Research, Inc.

8:50 am   **Using Sensitivity Analysis To Manage Uncertain Matching in Multiple Systems Estimation**—❖ Patrick Ball, Human Rights Data Analysis Group; Scott Weikart, Human Rights Data Analysis Group; Rapheal Kaplan, Human Rights Data Analysis Group; Romesh Silva, Human Rights Data Analysis Group; Jeff Klingner, Human Rights Data Analysis Group

9:05 am   **Measuring Employment and Wages in the Aftermath of Hurricanes Katrina and Rita**—❖ Linda Unger, Bureau of Labor Statistics; Richard Clayton, Bureau of Labor Statistics

9:20 am   **How Quickly Do New Construction Addresses Appear on the Delivery Sequence File?**—❖ Tina Flanagan, ; Clifford Loudermilk, U.S. Census

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Bureau

9:35 am **Evaluation of Two Subcategories of the Delivery Sequence File**—❖ Robert Colosi, U.S. Census Bureau; Aliza Kwiat, U.S. Census Bureau

9:50 am **Identifying and Accounting for Mergers and Acquisitions in Measuring Employment**—❖ Gordon Mikkelson, Bureau of Labor Statistics; Linda Unger, Bureau of Labor Statistics; Doreen LeBel, Connecticut Department of Labor

10:05 am **Floor Discussion**

118   CC-616
● Process Monitoring—Contributed

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

Chair(s): William H. Woodall, Virginia Polytechnic Institute and State University

8:35 am **Monitoring in the Presence of Dynamically Changing Observations**—❖ Emmanuel Yashchin, IBM Research

8:50 am **Statistical Monitoring of Heteroscedastic Dose-Response Profiles from High-Throughput Screening**—❖ James D. Williams, GE Global Research; Jeffrey B. Birch, Virginia Polytechnic Institute and State University; William H. Woodall, Virginia Polytechnic Institute and State University; Nancy Ferry, DuPont Crop Protection

9:05 am **Profile Monitoring via Linear Mixed Models**—❖ Willis Jensen, W. L. Gore & Associates, Inc.; Jeffrey B. Birch, Virginia Polytechnic Institute and State University; William H. Woodall, Virginia Polytechnic Institute and State University

9:20 am **Monitoring of the Process Mean with Double Sampling EWMA Control Charts**—❖ Keunpyo Kim, PRA International; Marion R. Reynolds, Jr., Virginia Polytechnic Institute and State University

9:35 am **Multivariate SPC for Batch Processes**—Benjamin M. Adams, The University of Alabama; ❖ Young Kim, The University of Alabama

9:50 am **Estimation of Process Parameters To Determine the Optimum Diagnosis Interval for Control of Defective Items**—❖ Abhyuday Mandal, University of Georgia; Tirthankar Dasgupta, Georgia Institute of Technology

10:05 am **An Extension of a Change Point Problem**—❖ Albert Vexler, National Institute of Child Health & Human Development; Chengqing Wu, National

Institute of Child Health & Human Development; Aiyi Liu, National Institute of Child Health & Human Development; Brian W. Whitcomb, National Institute of Child Health & Human Development; Enrique F. Schisterman, National Institute of Child Health & Human Development

119   CC-617
● Mixture Modeling—Contributed

Section on Nonparametric Statistics

Chair(s): Stanley Pounds, St. Jude Children's Research Hospital

8:35 am **Nonparametric Mixture Regression**—❖ Alex Rojas, Carnegie Mellon University; Christopher Genovese, Carnegie Mellon University; Larry Wasserman, Carnegie Mellon University

8:50 am **A New Approach to Modeling the PET Data and Input Function**—❖ Huiping Jiang, Columbia University

9:05 am **Local linear regression by mixture**—❖ Weixin Yao, Penn State

9:20 am **A Mixture Model with Dependent Observations for the Analysis of CFSE-Labeling Experiments**—❖ Ollivier Hyrien, University of Rochester; Martin S. Zand, University of Rochester

9:35 am **Prevalence Estimation from Multiple Incomplete Lists Using the Rasch Model**—❖ Changxuan Mao, University of California, Riverside

9:50 am **Semiparametric Mixture Approach for the Measurement Error Problem in the Presence of Additional Error-Free Covariate**—❖ Byungtae Seo, Penn State; Bruce G. Lindsay, Penn State

10:05 am **Nonparametric Mixture Model**—❖ Mian Huang, Penn State

Invited Sessions 10:30 am–12:20 pm

120   CC-3A
● ✿ Statistical Graphics: Applications in Drug Discovery and Clinical Development—Invited

Section on Statistical Graphics, Biometrics Section

Organizer(s): Stephen Kaluzny, Insightful Corporation

Chair(s): Stephen Kaluzny, Insightful Corporation

10:35 am **Graphical Analysis of Clinical Data: Exploratory and Production Environments**—❖ Matthew Austin, Amgen Inc.

Monday

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Monday

11:00 am **Statistical Graphics: Applications in Drug Discovery and Clinical Development**—❖ C. George Rochester, U.S. Food and Drug Administration; Charles K. Cooper, U.S. Food and Drug Administration; Mat Soukup, U.S. Food and Drug Administration; Ana Szarfman, U.S. Food and Drug Administration; Robert T. O'Neill, U.S. Food and Drug Administration

11:25 am **Statistical Graphics for Effective Scientific and Business Decisionmaking throughout Drug Discovery, Development, Postmarketing, and Portfolio Management**—❖ Thomas G. Filloon, Procter & Gamble

11:50 am Disc: Michael O'Connell, Insightful Corporation

12:10 pm **Floor Discussion**

121 CC-3B
Machine Learning and beyond: a Session in Memory of Leo Breiman—Invited

Memorial, Section on Statistical Computing, Section on Statistical Graphics, Section on Nonparametric Statistics

Organizer(s): Elizaveta Levina, University of Michigan; Vijay Nair, University of Michigan

Chair(s): Elizaveta Levina, University of Michigan

10:35 am **Leo's Many Lives: Probabilist, Statistician, Applied and Theoretical, Machine-Learning Guru and Gadfly**—❖ Peter J. Bickel, University of California, Berkeley

11:05 am **Predictive Learning via Rule Ensembles**—❖ Jerome H. Friedman, Stanford University

11:35 am **Random Forests: Variable Importance and Proximities**—❖ Adele Cutler, Utah State University

12:05 pm **Floor Discussion**

122 CC-616
● ✪ Balancing the Multiple Objectives of a Good Design of Experiments—Invited

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

Organizer(s): Christine M. Anderson-Cook, Los Alamos National Laboratory

Chair(s): Christine M. Anderson-Cook, Los Alamos National Laboratory

10:30 am **The Effect of Cost and Other Constraints on Optimal Split-Plot Designs**—❖ Alejandro Heredia-Langner, Pacific Northwest National Laboratory; Timothy Robinson, University

of Wyoming; Christine M. Anderson-Cook, Los Alamos National Laboratory; Douglas C. Montgomery, Arizona State University

11:05 am **Evaluation Criteria for Second-Order Split-Plot Designs**—❖ Peter A. Parker, NASA; Christine M. Anderson-Cook, Los Alamos National Laboratory; Timothy Robinson, University of Wyoming; Li Liang, Duke Clinical Research Institute

11:35 am **Criteria for Designing Experiments: Some Practical Considerations**—❖ Douglas C. Montgomery, Arizona State University

12:05 pm **Floor Discussion**

123 CC-608
Consistency and Convergence Rates for Bayesian Methods—Invited

Section on Bayesian Statistical Science

Organizer(s): Steven N. MacEachern, The Ohio State University

Chair(s): Steven N. MacEachern, The Ohio State University

10:35 am **On Posterior Consistency in Nonparametric Regression Problems**—❖ Taeryon Choi, University of Maryland Baltimore County

11:05 am **Rates of Convergence for Posterior Distributions**—❖ Stephen Walker, University of Kent

11:35 am **Recent Advances in Posterior Convergence Problem**—❖ Subhashis Ghosal, North Carolina State University

12:05 pm **Floor Discussion**

124 CC-617
● ✪ Theory and Analysis of Complex Networks—Invited

IMS, Section on Statisticians in Defense and National Security, Section on Statistical Graphics

Organizer(s): Cosma Shalizi, Carnegie Mellon University

Chair(s): Cosma Shalizi, Carnegie Mellon University

10:35 am **Community Detection in Large Networks**—❖ Jˆrg Reichardt, University of Bremen

11:00 am **Semimetric and Scale-Free Structure in Document Networks**—❖ Luis Rocha, Indiana University

11:25 am **Exponential-Family Models of Random Graphs for Social Networks**—❖ Martina Morris, University of Washington

11:50 am **Depth Partitions and Hierarchical Structure in**

GENERAL PROGRAM SCHEDULE

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a Tokyo Industrial District—Tsutomu Nakano, Kwansei Gakunin University; ❖ Douglas White, University of California, Irvine

12:15 pm   **Floor Discussion**

125 CC-2B
● Real-Life Problems Advancing Missing Data Techniques—Invited

Biopharmaceutical Section, Biometrics Section, Section on Health Policy Statistics

Organizer(s): Sunni A. Barnes, Mayo Clinic College of Medicine

Chair(s): Sunni A. Barnes, Mayo Clinic College of Medicine

10:35 am   **Missing Data in Smoking Cessation Trials—**❖ Michael D. Larsen, Iowa State University; Sunni A. Barnes, Mayo Clinic College of Medicine; Paul Decker, Mayo Clinic College of Medicine; Darrell Schroeder, Mayo Clinic College of Medicine; Robert Klesges, Mayo Clinic College of Medicine; Mark W. Vander Weg, Mayo Clinic College of Medicine

11:00 am   **A Novel Pattern Mixture Model Applied to QOL Data—**❖ Page C. Moore, University of Arkansas for Medical Sciences; John W. Seaman, Baylor University; Sunni A. Barnes, Mayo Clinic College of Medicine

11:25 am   **The Impact of Missing Data and How It Is Handled on the Rate of False Positive Results In Drug Development—**❖ Stacy Lindborg, Eli Lilly and Company; Craig Mallinckrodt, Eli Lilly and Company; Michael K. Carter, Eli Lilly and Company; Sunni A. Barnes, Mayo Clinic College of Medicine

11:50 am   Disc: Nathaniel Schenker, National Center for Health Statistics

12:10 pm   **Floor Discussion**

126 CC-4C-4
JASA Theory and Methods Invited Paper Session—Invited

JASA, Theory and Methods

Organizer(s): Walter W. Piegorsch, University of South Carolina

Chair(s): Stephen L. Portnoy, University of Illinois at Urbana-Champaign

10:35 am   **Quantile Autoregression—**❖ Roger Koenker, University of Illinois

11:20 am   Disc: Keith Knight, University of Toronto

11:35 am   Disc: Jianqing Fan, Princeton University

12:05 pm   **Floor Discussion**

127 CC-619
● ✿ Spatial Modeling to Address Problems in Ecology—Invited

Section on Statistics and the Environment, WNAR

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

Chair(s): Eric P. Smith, Virginia Polytechnic Institute and State University

10:35 am   **Geostatistical Modeling: Model Selection and Parameter Estimation—**❖ Jennifer A. Hoeting, Colorado State University

11:00 am   **Markov Chain Monte Carlo for a Spatial-Temporal Autologistic Regression Model—**❖ Jun Zhu, University of Wisconsin-Madison

11:25 am   **Application and Comparison of Alternative Spatial Modeling Approaches of Zero-Inflated Data—**❖ Mary C. Christman, University of Florida

11:50 am   Disc: Dale Zimmerman, The University of Iowa

12:10 pm   **Floor Discussion**

128 CC-601
● ✿ Cross-National Research on Immigration—Invited

Social Statistics Section

Organizer(s): Kevin Deardorff, U.S. Census Bureau

Chair(s): Pamela White, Statistics Canada

10:35 am   **Measuring Migration between Canada and the United States: a Case Study for Best Practices—** Melissa L. Therrien, U.S. Census Bureau; ❖ Margaret Michalowski, Statistics Canada

11:15 am   **Counting Immigrants and Expatriates: a New Perspective—**❖ Jean-Christophe Dumont, Organisation for Economic Co-operation and Development; Georges LeMaitre, Organisation for Economic Co-operation and Development

11:55 am   Disc: Angela Me, United Nations Economic Commission for Europe

12:15 pm   **Floor Discussion**

129 CC-206
● Subset Selection in Random Effects and Variance Component Models—Invited

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

ENAR, Biometrics Section, WNAR

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

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

10:35 am **A New Class of Model Selection Strategies with Applications in Mixed Model Selection—**❖ Jiming Jiang, University of California, Davis

11:05 am **Variance Components and Reliability in FMRI Studies—**❖ Hal Stern, University of California, Irvine; Sandip Sinharay, Educational Testing Service

11:35 am **BART: a Nonparametric Random Effects Model—** Hugh A. Chipman, Acadia University; ❖ Edward I. George, University of Pennsylvania; Robert E. McCulloch, The University of Chicago

12:05 pm **Floor Discussion**

130   CC-400
● Inference under Biased Sampling—Invited

General Methodology

Organizer(s): Barry I. Graubard, National Cancer Institute

Chair(s): Barry I. Graubard, National Cancer Institute

10:35 am **Estimation of Treatment Effects in Observational Studies—**❖ Danny Pfeffermann, Hebrew University/University of Southampton

11:00 am **Maximum-Likelihood Inference on a Mixed Conditionally and Marginally Specified Regression Model in Genetic Epidemiologic Studies with Two-Phase Sampling—**❖ Nilanjan Chatterjee, National Cancer Institute; Yi-Hau Chen, Academia Sinica

11:25 am **The Design and Analysis of Two-Phase Sampling—** ❖ Alastair J. Scott, The University of Auckland; Christopher J. Wild, The University of Auckland; Yannan Jiang, The University of Auckland

11:50 am **Weighted Likelihood for Semiparametric Models and Two-Phase Stratified Samples with Application to Cox Regression—**❖ Norman E. Breslow, University of Washington; Jon A. Wellner, University of Washington

12:15 pm **Floor Discussion**

Invited Panels 10:30 am–12:20 pm

131   CC-401

● ✪ Having an Impact in a Multidisciplinary Setting—Invited

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

Organizer(s): Janice Derr, U.S. Food and Drug Administration; Lillian Lin, Centers for Disease Control and Prevention

Chair(s): Christina M. Gullion, Kaiser Permanente Center for Health Research

Panelists: ❖ Janice Derr, U.S. Food and Drug Administration

❖ Janet Powell, University of Washington

❖ Lillian Lin, Centers for Disease Control and Prevention

❖ Kevin Cain, University of Washington

❖ W. ScottClark, Eli Lilly and Company

12:15 pm **Floor Discussion**

Topic-Contributed Sessions 10:30 am–12:20 pm

132   CC-606

● ✪ Advances in Confidence Intervals on Variance Components—Topic-Contributed

Section on Health Policy Statistics

Organizer(s): Joseph Cappelleri, Pfizer Inc.

Chair(s): Kye Gilder, Biogen Idec

10:35 am **A Comparison of Two Confidence Interval Approaches on the Dependability Coefficient in a Two-Factor Crossed Design—**❖ Joseph Cappelleri, Pfizer Inc.; Naitee Ting, Pfizer Inc.

10:55 am **Confidence Intervals on General Variance Components Model: Modified Large Sample Approach—**❖ Yonghee Lee, Ewha Womans University

11:15 am **Confidence Intervals on Intermediate Precision Measures in Analytical Method Validations and Transfers—**❖ Richard Burdick, Amgen Inc.; Shea Watrin, Amgen Inc.

11:35 am **Confidence Intervals of a Common Intraclass Correlation Coefficient—**❖ Lili Tian, University of Buffalo

11:55 am Disc: Naitee Ting, Pfizer Inc.

12:15 am **Floor Discussion**

133   CC-602

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

● Recent Advances in Small-Area Issues—Topic-Contributed

Section on Survey Research Methods

Organizer(s): Karabi Sinha, University of Illinois at Chicago

Chair(s): Karabi Sinha, University of Illinois at Chicago

10:35 am	**Small-Area Modeling for Survey Data with Smoothed Error Covariance Structure via Generalized Design Effects—**❖ Ralph Folsom, RTI International; Avinash C. Singh, Statistics Canada; Akhil Vaish, RTI International
10:55 am	**Small-Area Estimation Using Nonparametric Regression—**❖ Tathagata Bandyopadhyay, Indian Institute of Management Ahmedabad
11:15 am	**Robust Estimation of the Mean Square Error of an EBLUP of a Small-Area Mean—**❖ Shijie Chen, RTI International; Partha Lahiri, University of Maryland; Jon N. K. Rao, Carleton University
11:35 am	**Hierarchical and Empirical Bayesian Analysis of Bivariate Binary Data: an Application to Small-Area Estimation—**❖ Ananya Roy, University of Florida; Malay Ghosh, University of Florida
11:55 am	**Bayesian Estimation of the Percentiles of Overweight—**❖ Jai Choi, National Center for Health Statistics; Balgobin Nandram, Worcester Polytechnic Institute
12:15 pm	**Floor Discussion**

134   CC-603

● Meta-analysis in Survey Research: Analysis of Multiple Response Rates and Other Applications—Topic-Contributed

Section on Survey Research Methods

Organizer(s): Hiroaki Minato, NORC

Chair(s): Hiroaki Minato, NORC

10:35 am	**Differences in Survey Nonresponse Components over Time in Various Domains—**❖ Brad Edwards, Westat; David Cantor, Westat; Lisa Moses, Westat
10:55 am	**Monitoring Survey Response Rates and Measuring Nonresponse Bias in a Federal Statistical Agency: National Center for Education Statistics (NCES)—**❖ Marilyn Seastrom, National Center for Education Statistics
11:15 am	**Sources of Variation in Response Rates to the Behavioral Risk Factor Surveillance System—**❖ David W. Smith, The University of Texas School of Public Health

11:35 am	**Meta-analysis in the Human Sciences—**❖ Mack Shelley, Iowa State University
11:55 am	Disc: Allan L. McCutcheon, University of Nebraska-Lincoln
12:15 pm	**Floor Discussion**

135   CC-609

● ✪ Recent Advances in Bayesian Computation and Bioinformatics—Topic-Contributed

Section on Bayesian Statistical Science, Biometrics Section, WNAR, ENAR

Organizer(s): Raphael Gottardo, The University of British Columbia

Chair(s): Mario Peruggia, The Ohio State University

10:35 am	**Model-Based Correlations: a Tool for Revealing Interactions in Microarray Data—**❖ Beatrix Jones, Massey University; Marie Fitch, Massey University
10:55 am	**Recent Developments in Population Monte Carlo—**❖ David Stephens, Imperial College London
11:15 am	**Multiple Testing Using the Posterior Probability of Half-Space: Application to Microarray Data—**❖ Aurelie Labbe, Universite Laval; Mary Thompson, University of Waterloo
11:35 am	**Markov Chain Density Estimation with Applications in Bioinformatics—**❖ Mark Briers, University of Cambridge; Arnaud Doucet, The University of British Columbia; Raphael Gottardo, The University of British Columbia
11:55 am	**Bayesian Analysis of ChIP-chip Experiments—**❖ Raphael Gottardo, The University of British Columbia
12:15 pm	**Floor Discussion**

136   CC-203

● ✪ Coalescent/Evolution Theory—Topic-Contributed

Section on Statistics in Epidemiology

Organizer(s): Ingo Ruczinski, The Johns Hopkins University

Chair(s): Varghese George, Medical College of Georgia

10:35 am	**The McDonald-Kreitman Test in Studies of Molecular Evolution—**❖ Jason Gardenier, The College of William & Mary
10:55 am	**Beyond the TDT—**❖ Knut Wittkowski, The Rockefeller University; Ephraim Sehayek, The Rockefeller University

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

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11:15 am **Coalescent Theory for a Completely Random Mating Monoecious Population**—❖ Edward Pollak, Iowa State University

11:35 am **Poisson Stars and Phylogenetic Trees: Limits of Inferences on Population History**—❖ James Dunyak, The MITRE Corporation; Marc Colosimo, The MITRE Corporation; Lynette Hirschman, The MITRE Corporation

11:55 am **Strategies for Optimally Identifying Significant SNPs in Case-Control and Trio Association Data**—❖ Christina Bromley, BioStat Solutions Inc.; Ronald L. Bromley, BioStat Solutions Inc.; Sandy Close Kirkwood, Eli Lilly and Company; Richard D. Hockett, Eli Lilly and Company; Nitai Mukhopadhyay, Eli Lilly and Company

12:15 pm **Floor Discussion**

137 CC-611

● ✪ **Bayesian Bioinformatics—Topic-Contributed**

Section on Bayesian Statistical Science, Biometrics Section, ENAR

Organizer(s): Lynn Kuo, University of Connecticut

Chair(s): Ram Tiwari, National Institutes of Health

10:35 am **Bayesian Analysis of EST Data with Multiple Libraries and Multiple Types of Tissues**—❖ Fang Yu, University of Connecticut; Ming-Hui Chen, University of Connecticut; Lynn Kuo, University of Connecticut; Peng Huang, Medical University of South Carolina; Wanling Yang, The University of Hong Kong

10:55 am **Protein Structure Prediction: Statistical and Machine-Learning Approaches**—❖ Sujay Datta, Texas A&M University

11:15 am **Identifying Activated Molecular Pathways Using Bayesian Methods**—❖ Yifang Zhao, University of Connecticut; Lynn Kuo, University of Connecticut; Dong-Guk Shin, University of Connecticut; Fang Yu, University of Connecticut

11:35 am **Normalization of Microarrays in Transcription Inhibition Experiments**—❖ Yan Zheng, University of Minnesota; Cavan Reilly, University of Minnesota

11:55 am **Bayesian Models for Pooling Microarray Studies with Multiple Sources of Replications**—❖ Erin Conlon, University of Massachusetts

12:15 pm **Floor Discussion**

138 CC-211

● ✪ **Statistical Issues in Cardiovascular Medical Device Clinical Trials—Topic-Contributed**

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Jeng Mah, American Medical Systems Inc.; Michael Lu, Edwards Life Sciences

Chair(s): Ning Li, U.S. Food and Drug Administration

10:35 am **The Use of a Correlated Binary Data Model for Sample Size Calculation and Analysis of Accessions Data**—❖ John C. Evans, Boston Scientific Corporation; Corina M. Sirbu, Boston Scientific Corporation; Kay M. Larholt, Boston Scientific Corporation; Brian Johnson, Boston Scientific Corporation

10:55 am **Statistical and Clinical Significance: a Practical Example Utilizing ST-Segment Monitor Endpoints in Acute ST Elevation MI (STEMI)**—❖ Cynthia Green, Duke Clinical Research Institute

11:15 am **An Application of Propensity Score Method in Medical Device Trials**—❖ Minglei Liu, Medtronic, Inc.; Jianming Wang, Medtronic, Inc.; Jane Gau, Medtronic, Inc.

11:35 am **Patient-Prosthesis Mismatch and Operative Mortality after Aortic Valve Replacement Surgery**—❖ Sean M. O'Brien, Duke University; Elizabeth R. DeLong, Duke University; Lawrence H. Muhlbaier, Duke University; Charles R. Bridges, University of Pennsylvania; Eric D. Peterson, Duke University

11:55 am **Receiver Operating Characteristic Curve Method for Evaluating Surrogate Endpoints for Predicting Target Lesion Revascularization in a Second-Generation Drug Eluting Stent Trial**—❖ Hong Wang, Boston Scientific Corporation; Sarah Bass, Boston Scientific Corporation ; Peter S. Lam, Boston Scientific Corporation

12:15 pm **Floor Discussion**

139 CC-214

● **Methods in Cancer Research—Topic-Contributed**

Biometrics Section, ENAR

Organizer(s): Terry Hyslop, Thomas Jefferson University

Chair(s): Karla V. Ballman, Mayo Clinic College of Medicine

10:35 am **A Primer on Quantitative RT-PCR (q-RT-PCR) with Applications in Colorectal Cancer Biomarker Studies**—❖ Terry Hyslop, Thomas Jefferson

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University; Yanyan Li, Thomas Jefferson University ; Inna Chervoneva, Thomas Jefferson University

10:55 am **Estimation of RT-PCR Amplification Efficiency with Application to Relative Quantification**—❖ Inna Chervoneva, Thomas Jefferson University; Yanyan Li, Thomas Jefferson University ; Terry Hyslop, Thomas Jefferson University; Boris Iglewicz, Temple University

11:15 am **Sample Size for FDR-Control in Microarray Data Analysis**—❖ Sin-Ho Jung, Duke University

11:35 am **An Experimental Design for Clinical Trials Evaluating Combination Agents**—❖ Christine McLaren, University of California, Irvine; Vernon M. Chinchilli, Penn State; Wen-Pin Chen, Chao Family Comprehensive Cancer Center; Frank L. Meyskens, Chao Family Comprehensive Cancer Center

11:55 am **Adaptive Phase I Clinical Trial Designs for Biologic Agents and Molecularly Targeted Therapies**—❖ Sumithra Mandrekar, Mayo Clinic College of Medicine; Daniel Sargent, Mayo Clinic College of Medicine

12:15 pm **Floor Discussion**

Topic-Contributed Panels
10:30 am–12:20 pm

140 **CC-607**

Expanding Access to Research Data: Reconciling Risks and Opportunity—Topic-Contributed

Section on Government Statistics, Section on Statistical Education, Section on Statistical Consulting

Organizer(s): Connie Citro, Committee on National Statistics

Chair(s): Katherine Wallman, Office of Management and Budget

Panelists: ❖ Eleanor Singer, University of Michigan

❖ Margo Anderson, University of Wisconsin-Milwaukee

❖ John Haltiwanger, University of Maryland

❖ Daniel Weinberg, U.S. Census Bureau

❖ Donald Rubin, Harvard University

12:15 pm **Floor Discussion**

Regular Contributed Sessions

10:30 am–12:20 pm

141 **CC-210**

Causal Inference and Noncompliance—Contributed

Biometrics Section, Section on Health Policy Statistics, ENAR

Chair(s): Ming An, The Johns Hopkins University

10:35 am **On eEstimating Treatment Effects under Noncompliance in Randomized Clinical Trials**—❖ Heejung Bang, Cornell University; Clarence E. Davis, The University of North Carolina at Chapel Hill

10:50 am **Efficient Nonparametric Estimation of Causal Effects in Randomized Trials with Noncompliance**—❖ Jing Cheng, University of Pennsylvania; Dylan S. Small, University of Pennsylvania; Thomas R. Ten Have, University of Pennsylvania; Zhiqiang Tan, The Johns Hopkins University

11:05 am **Nested Markov Compliance Class Model in the Presence of Time-Varying Noncompliance**—❖ Julia Lin, University of Pennsylvania; Thomas R. Ten Have, University of Pennsylvania; Michael R. Elliott, University of Michigan

11:20 am **Use of a Marginal Structural Model To Estimate the Causal Effect of Epoetin Use on Hemactocrit Value among Hemodialysis Patients**—❖ Yi Zhang, Medical Technology and Practice Patterns Institute; Mae Thamer, Medical Technology and Practice Patterns Institute; Dennis J. Cotter, Medical Technology and Practice Patterns Institute; James Kaufman, U.S. Department of Veterans Affairs VA Boston Healthcare System; Miguel A. Hern·n, Harvard School of Public Health

11:35 am **The Causal Effect of Finasteride on the Severity of Prostate Cancer**—❖ Bryan Shepherd, Vanderbilt University; Mary W. Redman, Southwest Oncology Group; Donna P. Ankerst, University of Munich

11:50 am **Location Design in Location-Controlled Follow-Up Studies**—❖ Fan Li, Johns Hopkins Bloomberg School of Public Health

12:05 pm **How To Make Inference from Experiments Conducted on Populations with Different Disease Determinants**—❖ Steven D. Mark, University of Colorado Health Sciences Center

Monday

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142 — CC-610
Nonparametric Regression Methods I—Contributed

Section on Nonparametric Statistics

Chair(s): Veera Baladandayuthapani, M. D. Anderson Cancer Center

10:35 am   **Two-Sample Comparison with Long Memory Errors**—❖ Fang Li, Indiana University Purdue University Indianapolis

10:50 am   **Some Diagnostic Methods for Choosing the Degree of Smoothing in Nonparametric Regression**—❖ Craig Andres, Kettering University; Robert Kushler, Oakland University

11:05 am   **Spline-Backfitted Kernel Smoothing of Additive Regression Models**—❖ Jing Wang, Michigan State University; Lijian Yang, Michigan State University

11:20 am   **Boundary Kernel Method in Nonparametric Deconvolution**—❖ Shunpu Zhang, University of Nebraska-Lincoln

11:35 am   **Double-Smoothing for Bias Reduction in Local Linear Regression**—❖ Hua He, University of Rochester Medical Center ; Li-Shan Huang, University of Rochester

11:50 am   **A Comparative Study of Stage-1 and Stage-2 Semiparametric Estimation of Hemodynamic Response Function for fMRI Data**—❖ Chunming Zhang, University of Wisconsin-Madison; Yuan Jiang, University of Wisconsin-Madison; Tao Yu, University of Wisconsin-Madison

12:05 pm   **Floor Discussion**

143 — CC-605
❂ Contributions in National Security—Contributed

Section on Statisticians in Defense and National Security

Chair(s): Elizabeth Hohman, Naval Surface Warfare Center

10:35 am   **Albert Einstein: Centennial Appreciation of a Master Statistician**—❖ Boris Iglewicz, Temple University

10:50 am   **Toward Effective Anomaly Detection in Public Health Surveillance**—❖ Colin Goodall, AT&T Labs-Research; Sylvia Halasz, AT&T Labs-Research; Arnold Lent, AT&T Labs - Research; Simon Tse, AT&T Labs - Research; John Allegra, Emergency Medical Associates Research Foundation; Dennis Cochrane, Emergency Medical Associates Research Foundation

11:05 am   **A Bayesian Approach to Radiographic Surveillance in Children**—❖ Namhee Kim, The Ohio State University; Prem K. Goel, The Ohio State University; Bema Bonsu, Columbus Children's Hospital; M. Marvin, Children's Hospital

11:20 am   **Statistical Analysis of Department of Energy Safety Data**—❖ Rama Sastry, U.S. Department of Energy

11:35 am   **Time transformation methods for analyzing time series with time-varying frequencies**—❖ James R. Haney, Southern Methodist University; Wayne A. Woodward, Southern Methodist University; Henry L. Gray, Southern Methodist University

11:50 am   **Minimum Hellinger Distance Estimation Using Synthetic Data**—❖ Bret Hanlon, Cornell University; Anand Vidyashankar, Cornell University

12:05 pm   **Error Modeling in Vector-Based GIS Data**—❖ Kimberly Love, Virginia Tech; Keying Ye, The University of Texas at San Antonio; Eric P. Smith, Virginia Polytechnic Institute and State University; Stephen Prisley, Virginia Tech

144 — CC-205
● ❂ Epidemiologic Modeling—Contributed

Section on Statistics in Epidemiology, ENAR

Chair(s): Liang Li, The Cleveland Clinic

10:35 am   **A Minimum-Distance Approach to Logistic Regression via the Case-Control Formulation**—❖ Howard Bondell, North Carolina State University

10:50 am   **A Wavelet-Based Method for the Prospective Monitoring of Disease Incidence Counts in Space and Time**—❖ J. Brooke Marshall, Virginia Tech; Dan Spitzner, Virginia Tech; William H. Woodall, Virginia Polytechnic Institute and State University

11:05 am   **Estimating the Causal Effect of LTVV on ALI with G-Computation**—❖ Weiwei Wang, The Johns Hopkins University; Daniel Scharfstein, Johns Hopkins Bloomberg School of Public Health; Dale Needham, Johns Hopkins Medical Institutions; Roy Brower, Johns Hopkins Medical Institutions; Peter Pronovost, Johns Hopkins Medical Institutions

11:20 am   **Joint Modeling of Birthweight and Gestational Age**—❖ Betsy Enstrom, Duke University; Alan E. Gelfand, Duke University; Geeta K. Swamy, Duke University Medical Center; Marie L. Miranda,

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Duke University

11:35 am **A Cross-Cultural Investigation of College Student Alcohol Consumption: a Classification Trees Analysis**—❖ Panagiota Kitsantas, East Carolina University; Anastasia Kitsantas, George Mason University; Tanya Anagnostopoulou, Hellenic Institute of Psychology and Health

11:50 am **Smoothing U.S. State Life Tables for Years 1999–2001**—❖ Rong Wei, National Center for Health Statistics; Lester R. Curtin, Centers for Disease Control and Prevention; Robert Anderson, National Center for Health Statistics; Elizabeth Arias, National Center for Health Statistics

12:05 pm **Clustered Odds Ratio**—❖ Wanjie Sun, The George Washington University; Patricia Cleary, The George Washington University; John M. Lachin, The George Washington University

145   CC-604

● **Survey-Based Estimation I—Contributed**

Section on Survey Research Methods

Chair(s): Michael R. Elliott, University of Michigan

10:35 am **Estimating Dynamic Price Indexes**—❖ Alan Dorfman, Bureau of Labor Statistics; Mary Kokoski, Bureau of Labor Statistics

10:50 am **Categorical Time Series Modeling Using Data from the Current Population Survey**—❖ Stephen Miller, Bureau of Labor Statistics

11:05 am **An Examination of Poststratification Techniques for the Behavioral Risk Factor Surveillance System**—❖ Michael P. Battaglia, Abt Associates Inc.; Martin R. Frankel, Abt Associates Inc.; Michael W. Link, Centers for Disease Control and Prevention

11:20 am **Power Analysis of the Rao-Scott First-Order Adjustment to the Pearson Test for Homogeneity**—❖ Sunyeong Heo, Changwon National University

11:35 am **Estimating Counterfactual Temporal Trends**—❖ Andrea Piesse, Westat; David R. Judkins, Westat

11:50 am **Testing the Robustness of HLM and SUDAAN**—❖ Jiaquan Fan, Westat; David R. Judkins, Westat

12:05 pm **Hierarchical Linear Modeling Using Complex Survey Data Based on the Pre-Elementary Education Longitudinal Study (PEELS)**—❖ Hyunshik Lee, Westat; Frank Jenkins, Westat; Sunyeong Heo, Changwon National University

146   CC-201

● ✪ **Disease Surveillance Methods—Contributed**

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Chair(s): Lei Shen, The Ohio State University

10:35 am **Disease Outbreak Surveillance: Using Prescription Data as a Proxy Source for Detection**—❖ A. Elizabeth Allen, IMS Health; Kennon Copeland, IMS Health

10:50 am **A Comparison of Two Methods for Disease Surveillance**—❖ Gerald Shoultz, Grand Valley State University; Paul Stephenson, Grand Valley State University; J. Wanzer Drane, University of South Carolina

11:05 am **Prospective Surveillance of Influenza Data Using Hidden Markov Models**—❖ Al Ozonoff, Boston University; Paola Sebastiani, Boston University

11:20 am **Modeling and Prediction of Influenza Outbreaks Using Chest Radiograph Data**—Peter F. Craigmile, The Ohio State University; Namhee Kim, The Ohio State University; ❖ Soledad Fernandez, The Ohio State University; Bema Bonsu, Columbus Children's Hospital

11:35 am **Detection of Outbreaks in Syndromic Surveillance Data Using Monotonic Regression**—❖ Jared Burdin, The MITRE Corporation; James Dunyak, The MITRE Corporation; Mojdeh Mohtashemi, The MITRE Corporation/MIT/AI Lab; Martin Kulldorff, Harvard Medical School/Harvard Pilgrim Health Care

11:50 am **Surveillance of Occupational Drivers Using k Nearest Neighbor Methods on the Line**—❖ Svetla Slavova, University of Kentucky; Terry Bunn, University of Kentucky; Dmitri Pavlov, Pfizer Inc.; Richard J. Kryscio, University of Kentucky

12:05 pm **A Mathematical Model for the Influence of the Pneumococcal Vaccine on S. pneumoniae Vaccine and Nonvaccine Serotypes**—❖ Robertino Mera, GlaxoSmithKline

147   CC-620

Reliability and Life Testing—Contributed

Section on Physical and Engineering Sciences

Chair(s): Peter Hovey, University of Dayton

10:35 am **Estimating Failure Probability: Exploring Methods**—❖ Jason Overstreet, Honeywell Inc.; Eric B. Howington, Coastal Carolina University; Alexia M. Athienitis-Makris, Applied Health

GENERAL PROGRAM SCHEDULE

✿ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Outcomes

10:50 am **Graphical Estimators of Location and Scale from Probability Plots with Censored Data**—❖ Anupap Somboonsavatdee, University of Michigan; Vijay Nair, University of Michigan; Ananda Sen, University of Michigan

11:05 am **Design of Sudden Death Tests for Estimation of a Weibull Percentile**—❖ John McCool, Penn State

11:20 am **Accelerate Life Test Planning with Independent Weibull Competing Risks with Known Shape Parameter**—❖ Francis Pascual, Washington State University

11:35 am **Proportional Odds Families of Lifetime Distributions**—❖ James Gleaton, University of North Florida; James Lynch, University of South Carolina

11:50 am **Robust Prediction and Extrapolation Designs for Censored Data**—❖ Xiaojian Xu, University of Alberta

12:05 pm **Comparison Sequential Testing for Reliability: Optimal Test Truncation**—❖ Genady Grabarnik, IBM T. J. Watson Research Center; Haim Michlin, Technion-Israel Institute of Technology

148   CC-613
● **Assessment of Student Performance— Contributed**

Section on Statistical Education

Chair(s): Joan Weinstein, Pine Manor College

10:35 am **Pedagogical Utilization and Assessment of the Statistic Online Computational Resource in Introductory Probability and Statistics Courses**—❖ Juana Sanchez, University of California, Los Angeles; Ivo Dinov, University of California, Los Angeles; Nicolas Christou, University of California, Los Angeles

10:50 am **Assessing College Students' Success in the Elementary Statistics Course**—❖ Jen-Ting Wang, SUNY at Oneonta; Shu-Yi Tu, University of Michigan; Yann-Yann Shieh,

11:05 am **Be Realistic! Analysis and Pedagogical Benefits of Soliciting Students' Exam Score Estimates**—❖ Douglas M. Andrews, Wittenberg University

11:20 am **Predictors of Group Performance on Projects**—❖ William L. Harkness, Penn State

11:35 am **Are the Students Ready for the Challenge?**—❖ Mammo Woldie, Texas Southern University

11:50 am **A Comparison of Gender Performance on Parallel Mathematics Questions**—❖ Kenn Pendleton, GED Testing Service

12:05 pm **Changing Answers in Exams: for the Better or for the Worse?**—❖ Juergen Symanzik, Utah State University; Natascha Vukasinovic, Utah State University

149   CC-614
● **Insights for Advanced Undergraduate Statistics Courses—Contributed**

Section on Statistical Education, Section on Statistical Consulting

Chair(s): William Peterson, Middlebury College

10:35 am **Writing Experiences in a Second Statistics Class**—❖ Terry King, Northwest Missouri State University

10:50 am **Datasets for Teaching Statistics and Design**—❖ Charles Stegman, University of Arkansas; Calli Holaway-Johnson, University of Arkansas

11:05 am **Attracting the Brightest Students into Statistics**—❖ Greg Taylor, Winston-Salem State University

11:20 am **Intermediate Statistics with SAS: Interactive**—❖ Phyllis Curtiss, Grand Valley State University

11:35 am **Computer Activities To Support Learning Traditional Math Stat Topics**—❖ Mary Parker, The University of Texas at Austin/Austin Community College

11:50 am **Teaching an Undergraduate Capstone Course in Statistical Consulting**—❖ Heather Smith, California Polytechnic State University, San Luis Obispo; John Walker, California Polytechnic State University, San Luis Obispo

12:05 pm **Integrating Statistical Knowledge through an Undergraduate Capstone Course**—❖ John Walker, California Polytechnic State University, San Luis Obispo; Heather Smith, California Polytechnic State University, San Luis Obispo

150   CC-612
Mixture Models and Misspecified Models— Contributed

Section on Bayesian Statistical Science

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

10:35 am **Bayes Methodology Accounting for Uncertainty of Commonality in 'Random Effects' in a Linear Mixed Model**—❖ Guofen Yan, University of

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✿ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Virginia; Joseph Sedransk, Case Western Reserve University

10:50 am **How Well Does a Logistic Regression Model Estimated with Complex, Multistage Survey Data Fit Data from a New Sample?**—❖ Tyson Rogers, University of Minnesota

11:05 am **Bayesian Model for Misclassified Binary Response with Covariate Subject to Measurement Error**—❖ Anna McGlothlin, Baylor University

11:20 am **Label Switching in Finite Mixture Models**—❖ Tong Wang, University of Southern California; Steven L. Scott, University of Southern California

11:35 am **Bayesian Inference of Population Structure from Dominant Markers Using Mixture of Betas**—❖ Rongwei Fu, Oregon Health & Science University; Dipak Dey, University of Connecticut; Kent E. Holsinger, University of Connecticut

11:50 am **Flexible Bayesian Variable Selection in Multivariate Linear Regression**—❖ Nan Lin, Washington University in St. Louis

12:05 pm **The Average Effects of Misspecified Models and Diffuse Interaction Models**—❖ Juxin Liu, The University of British Columbia; Paul Gustafson, The University of British Columbia

151 CC-618
Model Selection and Diagnostics—Contributed
IMS

Chair(s): Albert Kim, University of Washington

10:35 am **AIC for Change-Point Models**—❖ Yoshiyuki Ninomiya, Kyushu University

10:50 am **Iterative Bias Correction on Cross-Validation**—❖ Hirokazu Yanagihara, University of Tsukuba; Hironori Fujisawa, The Institute of Statistical Mathematics

11:05 am **Model Assessment Tools for a Model False World**—❖ Jiawei Liu, Georgia State University; Bruce G. Lindsay, Penn State

11:20 am **Context Tree Estimation for Not Necessarily Finite Memory Processes, via BIC and MDL**—❖ Zsolt Talata, Georgia Institute of Technology; Imre Csiszar, AlfrÈd RÈnyi Institute of Mathematics

11:35 am **Variable Selection via Penalized Likehood in Semiparametric Regression**—❖ Xiao Ni, North Carolina State University; Daowen Zhang, sanofi-aventis; Hao Zhang, North Carolina State University

11:50 am **Highest Posterior Model Selection**—❖ Tanujit Dey, Case Western Reserve University; Hemant Ishwaran, The Cleveland Clinic; J. S. Rao, Case Western Reserve University

12:05 pm **Residuals and Diagnostics in Dirichlet Regression**—❖ Rafiq Hijazi, United Arab Emirates University

152 CC-213
● Missing Covariates, Covariate Measurement Error, and Misclassification—Contributed
Biometrics Section, WNAR, ENAR

Chair(s): Sebastien Haneuse, Group Health Cooperative

10:35 am **A Pseudolikelihood Approach for Analyzing Nutritional Epidemiologic Data in the Presence of Dietary Measurement Error**—❖ Samiran Sinha, Texas A&M University; Raymond J. Carroll, Texas A&M University; Bani K. Mallick, Texas A&M University

10:50 am **Instrumental Variable Estimation in Logistic Regression Models with Measurement Error**—❖ Kimberly Weems, North Carolina State University; Leonard A. Stefanski, North Carolina State University

11:05 am **Simultaneous Inference for Semiparametric Nonlinear Mixed-effects Models with Covariate Measurement Errors and Missing Responses**—❖ Wei Liu, The University of British Columbia; Lang Wu, The University of British Columbia

11:20 am **Sieve Maximum Likelihood Estimation for Missing Covariates in Regression Models**—❖ Qingxia Chen, Vanderbilt University; Donglin Zeng, The University of North Carolina at Chapel Hill; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill

11:35 am **Composite Tests Using Matrix Pooling: Minimizing Tests, Maximizing Results**—❖ Bethany Hedt, Harvard School of Public Health; Marcello Pagano, Harvard School of Public Health

11:50 am **The Effect of Differential Misclassification in the Chuuk's Mudslide Study**—❖ Tzesan Lee, National Center for Environmental Health; Josephine Malilay, National Center for Environmental Health

12:05 pm **Floor Discussion**

153 CC-615

GENERAL PROGRAM SCHEDULE

❂ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Monday

Inference—Contributed

Section on Statistical Computing

Chair(s): Anuradha Roy, The University of Texas at San Antonio

10:35 am   **Inference on Reliability in Two-Parameter Exponential Stress-Strength Model**—❖ Shubhabrata Mukherjee, University of Louisiana at Lafayette; Kalimuthu Krishnamoorthy, University of Louisiana at Lafayette; Huizhen Guo, Xavier University

10:50 am   **The Distribution of the S-Statistic for Samples of Size 4 Drawn from Uniform and Exponential Populations**—❖ Winston Richards, Penn State

11:05 am   **Modified Normal Approximations to the Binomial Distribution**—❖ David Vlieger, Northwest Missouri State University

11:20 am   **On the Simultaneous Lower Confidence Bounds for Order Restricted Inference**—❖ Chu-In C. Lee, Memorial University of Newfoundland; Jianan Peng, Acadia University; Lin Liu, University of California, San Diego

11:35 am   **A Partially Exchangeable Model and Its Applications in Correlated Data**—❖ Latonya Garner, University of Mississippi; Hanxiang Peng, University of Mississippi

11:50 am   **A Continuing Study on a New Resampling Method To Reduce Small-Sample Bias: an Extension to Nonnormal Distributions**—❖ Haiyan Bai, University of Cincinnati; Wei Pan, University of Cincinnati

12:05 pm   **Shape-Restricted Regression Splines and Applications**—❖ Mary Meyer, University of Georgia

154   CC-2A
● **Adaptive Methods—Contributed**

Biopharmaceutical Section

Chair(s): Wei Zhong, ICON Clinical Research

10:35 am   **A Two-Stage Adaptive Design for Phase III Trials To Establish Noninferiority and Superiority**—❖ Yulan Li, Novartis Pharmaceuticals Corporation; Qing Liu, Johnson & Johnson; Jeffrey Maca, Novartis Pharmaceuticals Corporation

10:50 am   **Confidence Intervals Following an Adaptive Group Sequential Design**—❖ Cyrus Mehta, Cytel Inc.

11:05 am   **Implementing Adaptive Designs in Clinical Trials: Risks and Benefits**—❖ Christopher Khedouri,

U.S. Food and Drug Administration; Thamban Valappil, U.S. Food and Drug Administration; Mohammad Huque, U.S. Food and Drug Administration

11:20 am   **Dynamic Treatment Allocation and Randomization Tests in Clinical Trials**—❖ Lee-Lian Kim, Centocor R&D, Inc.; Yaung-Kaung Shen, Centocor R&D, Inc.; Jewel Johanns, Centocor R&D, Inc.; Aparna Raychaudhuri, Centocor R&D, Inc.

11:35 am   **Resampling Methods for Adaptive Designs**—❖ Hui Zhang, Bristol-Myers Squibb Company

11:50 am   **Evaluating Exploratory and Confirmatory Evidence Collectively**—❖ Qian Li, U.S. Food and Drug Administration

12:05 pm   **Adjusted Two-Sided Combination Tests for Adaptive Clinical Trials**—❖ Zhilong Yuan, Johnson & Johnson Pharmaceutical R&D; Yang Song, Johnson & Johnson Pharmaceutical R&D; Xiaolong Luo, Johnson & Johnson Pharmaceutical R&D; George Chi, Johnson & Johnson Pharmaceutical R&D

155   CC-204
● **Analysis of Microarrays—Contributed**

Biometrics Section, ENAR

Chair(s): Xueli Liu, University of Florida

10:35 am   **Biweight Correlation as a Measure of Distance between Genes on a Microarray**—❖ Aya Mitani, Pitzer College

10:50 am   **Modified Wilcoxon Mann-Whitney Methods for Identifying Functional Gene Categories in Microarray Experiments**—❖ Liu Hua, University of Kentucky; Constance Wood, University of Kentucky; Arnold J. Stromberg, University of Kentucky

11:05 am   **MicroRNA Regulation of mRNA Expression in Neuronal Development**—❖ Diane Richardson, Rutgers University; Rebecka Jornsten, Rutgers University

11:20 am   **Point and Interval Predictions of Protein Concentrations in ELISA Microarray Assays**—❖ Don S. Daly, Pacific Northwest National Laboratory; Kevin K. Anderson, Pacific Northwest National Laboratory; Amanda M. White, Pacific Northwest National Laboratory; Susan S. Varnum, Pacific Northwest National Laboratory; Richard C. Zangar, Pacific Northwest National Laboratory

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11:35 am   **A Nonparametric Likelihood Ratio Test To Identify Differentially Expressed Genes from Microarray Data—**❖ Sunil Mathur, University of Mississippi; Sankar Bokka, University of Mississippi

11:50 am   **A Statistical Framework To Infer Functional Gene Associations from Multiple Biologically Dependent Microarray Experiments—**❖ Siew-Leng Teng, University of California, Berkeley

12:05 pm   **Cluster Analysis for Gene Expression Data with Liquid Association Structure—**❖ Yijing Shen, University of California, Los Angeles; Ker-Chau Li, University of California, Los Angeles; Shinsheng Yuan, University of California, Los Angeles

156   CC-212
● Models for Data Collected over Time—Contributed

Biometrics Section

Chair(s): Patrick Heagerty, University of Washington

10:35 am   **Analysis of Mixture Random Effects Models for Longitudinal Data—**❖ Yimeng Lu, Columbia University; Hongtu Zhu, Columbia University and New York State Psychiatric Institute; Thaddeus Tarpey, Wright State University; Eva Petkova, Columbia University

10:50 am   **Nonparametric Inference for High-Dimensional Longitudinal Data—**❖ Ke Zhang, Kansas State University; Haiyan Wang, Kansas State University

11:05 am   **Violating the Assumption of Independence of the Error Components in the Linear Mixed Model for Longitudinal Data—**❖ Matthew Gurka, University of Virginia ; Lloyd Edwards, The University of North Carolina at Chapel Hill; Keith E. Muller, The University of North Carolina at Chapel Hill

11:20 am   **A Marginal Model for Multistate Panel Data under Heterogeneity—**❖ Wei-Ting Hwang, University of Pennsylvania School of Medicine

11:35 am   **Nonparametric Inference for Panel Count Data—**❖ Ying Zhang, The University of Iowa

11:50 am   **Estimation of the Mean Function of Panel Count Data Using Monotone Polynomial Splines—**❖ Minggen Lu, The University of Iowa; Ying Zhang, The University of Iowa; Jian Huang, The University of Iowa

12:05 pm   **Floor Discussion**

Topic-Contributed Poster Session
10:30 am–12:20 pm

157   CC-Level 6 East Lobby
Topic-Contributed Poster Session: Data Exposition—Topic-Contributed

Section on Statistical Graphics

Organizer(s): Paul Murrell, The University of Auckland

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Graphics, visualization

01   Using Data Mining Tools in the Study of NASA Ozone Data—❖ Wei-hong Wang, The College of New Jersey; Pin-Shuo Liu, William Paterson University

02   Identifying Outliers in Multivariate Spatial Data—❖ Anthony Franklin, Coastal Carolina University; Eric B. Howington, Coastal Carolina University; Keshav Jagannathan, Coastal Carolina University

03   Exploratory Data Analysis of Meteorological Data Using SAS Stat Studio—❖ Frederick Wicklin, SAS Institute, Inc.; Yun Chen, North Carolina State University

04   SparkMats: a Graphical Method of Exploring Spatially Distributed Time Series—❖ John Emerson, Yale University; Walton Green, Yale University

05   Novel Two-Step Process for Graphically Summarizing Multivariate Spatial Temporal Data in Two Dimensions—❖ Svetlana K. Eden, Vanderbilt University; Theresa A. Scott, Vanderbilt University; Angel An, Vanderbilt University; Jeffrey Horner, Vanderbilt University; Cathy Jenkins, Vanderbilt University

06   Using Kriging and 3-D Graphics To Explore Trends of Total Column Ozone Amount and Tropospheric Weather Systems in Central America from 1995 to 2000—❖ Kening Wang, University of Arkansas ; Charles Stegman, University of Arkansas; Sean W. Mulvenon, University of Arkansas ; Yanling Xia, University of Arkansas

07   Dynamic Data Visualization of Meteorological Data—❖ Bruce Peterson, Terastat

08   A Web-Centric Graphical Approach to Gain Insight into NASA's NUMB3RS—❖ Robert Allison, SAS Institute, Inc.

09   Another View at Central America—Hadley Wickham, Iowa State University; ❖ Jonathan Hobbs, Iowa State University; Dianne Cook, Iowa State University; Heike Hofmann, Iowa State University

10   Graphical Display of Model-Based Temperature Data—

Monday

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❂ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

❖ Jeff Slezak, Mayo Clinic College of Medicine

11   Multiple Lagged Differences in Spatial Time Series—
Rafe Donahue, Vanderbilt University Medical Center; ❖
Jeffrey Horner, Vanderbilt University

12   Exploring Spatial and Temporal Characteristics
of Atmospheric Ozone Concentration Using
Visualization—❖ Sudeshna Paul, Purdue University;
Souleymane Fall, Purdue University; Devdutta Niyogi,
Purdue University; Bruce A. Craig, Purdue University

13   Visualizing Several Abnormal Climate Changes in
Central America from January 1995–December 2000—
❖ Sang-Hoon Cho, University of Wisconsin-Madison;
Hyonho Chun, University of Wisconsin-Madison;
Deepayan Sarkar, State University of Wisconsin

14   Data Display Principles Revealed in the NASA Data—❖
Rafe Donahue, Vanderbilt University Medical Center

Regular Contributed Posters
10:30 am–12:20 pm

158   CC-Level 6 East Lobby
Contributed Posters—Contributed
General Methodology, Section on Statistical Computing, Biometrics Section,
Section on Statistics and the Environment, Section on Statistical Graphics

Organizer(s): Maura E. Stokes, SAS Institute, Inc.

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Cognitive science, linguistics, artificial intelligence
15   Intervention Models To Avoid—❖ Bradley Huitema,
Western Michigan University

Computational statistics and numerical methods
16   JSL Scripts for Extending Available Statistical Tests in JMP
Version 6—❖ Andy Mauromoustakos, University of
Arkansas; Kevin Thompson, University of Arkansas

Data mining and knowledge discovery, machine learning
17   Interactive Web Site for Data Analysis—❖ Roger Lamb,
Saginaw Valley State University; Morteza Marzjarani,
Saginaw Valley State University; Josh Urbain, Saginaw
Valley State University

Graphics, visualization
18   Novel Methods in the Visualization of Transitional
Phenomena—❖ Bruce Swihart, University of Colorado
at Denver and Health Sciences Center; Brian Caffo, The
Johns Hopkins University; Matthew Strand, University of
Colorado at Denver and Health Sciences Center; Naresh

Punjabi, The Johns Hopkins University

19   Using Multivariate Statistical Techniques To Analyze
Environmental Data—❖ Kyle Bradford, James Madison
University; Steaphanie Pearson, James Madison
University

Speaker with Lunch 12:30 pm–1:50 pm

159   CC-4C-1
Statistics in Sports Speaker with Lunch (fee event)—Speaker with Lunch
Section on Statistics in Sports

Organizer(s): Scott Berry, Berry Consultants

ML07   Every Play, Every Day: a Success Story for Statistics in
Sports—❖ Gilbert Fellingham, Brigham Young University

Roundtables with Lunch
12:30 pm–1:50 pm

160   CC-4C-2
Section on Bayesian Statistical Science Roundtable with Lunch (fee event)
Section on Bayesian Statistical Science

Organizer(s): Merlise Clyde, Duke University

ML08   Bayesian Bioinformatics—❖ Jeffrey S. Morris, M. D.
Anderson Cancer Center

161   CC-4C-2
Biopharmaceutical Section Roundtables with Lunch (fee event)
Biopharmaceutical Section

Organizer(s): Amit Bhattacharyya, GlaxoSmithKline

ML09   New Development and Challenges in Phase I and Phase I/II
Dose-Finding Studies—❖ Weili He, Merck & Co., Inc.

ML10   Analysis and Evaluation of Safety Information from Clinical
Trial Data—❖ H. Amy Xia, Amgen Inc.

ML11   Time-to-Event Analysis with Uncertain Endpoints—❖ Li
Chen, Amgen Inc.

ML12   Analyses of Stratified Trials: Tips for Improving Power—❖
Devan V. Mehrotra, Merck Research Laboratories

ML13   Using Computer Simulation To Aid in Dose Selection in Clinical Trials—❖ Kenneth Liu, Merck & Co., Inc.

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

ML14   Assessing the Concordance of Two-Measurement Methods—❖ Jason Liao, Merck Research Laboratories

ML15   Pharmacogenomics for Drug Development and Personalized Medicine—❖ Xuejun Peng, Takeda Global Research and Development Center

ML16   What To Do with Interaction Effects at Interim Analysis?—❖ Yuko Palesch, Medical University of South Carolina

ML17   Preparation of Interim Reports for Independent Data Monitoring Committee Review—❖ KyungMann Kim, University of Wisconsin-Madison

ML18   Statistical Design and Analysis Issues Associated with the Establishment of the Safety and Effectiveness of Medical Devices—❖ Gary Kamer, U.S. Food and Drug Administration

ML19   Issues in Planning Two-Arm Clinical Trials of Active Drugs—❖ Sheela Talwalker, T'Walker Consulting

ML20   Analysis of Multiple Failure Outcomes—❖ Guowen Sun, sanofi-aventis

ML21   What Are the Statistical Issues in Subgroup Analysis - Design, Analysis, and Interpretation?—❖ Chul H. Ahn, U.S. Food and Drug Administration

ML22   Conducting Multiple Event Analysis in Clinical Trials—❖ Xiang Zhang, Amgen Inc.

162   CC-4C-3
Business and Economics Statistics Section Roundtable with Lunch (fee event)
Business and Economics Statistics Section

Organizer(s): David Dickey, North Carolina State University

ML23   MBA Statistics Courses Should Start with Regression—❖ J. Keith Ord, Georgetown University

163   CC-4C-3
Section on Statisticians in Defense and National Security Roundtable with Lunch (fee event)
Section on Statisticians in Defense and National Security

Organizer(s): Lara S. Schmidt, RAND Corporation

ML24   Metrics for National Defense: What Metrics Would You Use To Measure Success or Make Decisions If You Were the Secretary of Defense or a Senator or Congressman?—❖ Nancy Spruill, Office of the Secretary of Defense

164   CC-4C-3
Section on Statistical Education Roundtables with Lunch (fee event)

Section on Statistical Education

Organizer(s): Patti Collings, Brigham Young University

ML25   Service Learning throughout the Statistics Curriculum—❖ Craig A. Johnson, Brigham Young University, Idaho

ML26   Finding Internet Resources for Teaching Statistics Using CAUSEweb—❖ Ginger Rowell, Middle Tennessee State University

ML27   What Can We Do To Implement the GAISE Guidelines in Our Classrooms?—❖ Mary Parker, The University of Texas at Austin/Austin Community College

165   CC-4C-3
Section on Statistics in Epidemiology Roundtable with Lunch (fee event)
Section on Statistics in Epidemiology

Organizer(s): Jennifer Clark Nelson, Group Health Cooperative

ML28   Sampling from Large Cohorts When Covariate Ascertainment Is Expensive—❖ William Barlow, Cancer Research and Biostatistics

166   CC-4C-3
Section on Government Statistics Roundtable with Lunch (fee event)
Section on Government Statistics

Organizer(s): Roberta Sangster, Bureau of Labor Statistics

ML29   Katrina: Unanticipated Data Needs—❖ Christa Jones, U.S. Census Bureau

167   CC-4C-3
Section on Health Policy Statistics Roundtable with Lunch (fee event)
Section on Health Policy Statistics

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

ML30   Measuring Health Disparities—❖ James Scanlan, James P. Scanlan, Attorney at Law

168   CC-4C-3
Section on Physical and Engineering Sciences Roundtable with Lunch (fee event)
Section on Physical and Engineering Sciences

Organizer(s): Winson Taam, The Boeing Company

ML31   Using All Them Machines: Grid Computing for Statistical Applications—❖ Randall Tobias, SAS Institute, Inc.; Peter Westfall, Texas Tech University

Monday

169 — CC-4C-3
Section on Quality and Productivity Roundtables with Lunch (fee event)

Organizer(s): William R. Myers, Proctor & Gamble

ML32 Use of Genetic Algorithms in Experimental Design—❖ John Borkowski, Montana State University

ML33 Bayesian Methods in Reliability—❖ Alyson Wilson, Los Alamos National Laboratory

170 — CC-4C-3
Section on Risk Analysis Roundtable with Lunch (fee event)

Section on Risk Analysis

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

ML34 Risks of Computerized Voting Systems—❖ Michael Orkin, Exponent, Inc.

171 — CC-4C-3
Section on Survey Research Methods Roundtables with Lunch (fee event)

Section on Survey Research Methods

Organizer(s): Steven G. Heeringa, University of Michigan

ML35 The Importance of Nonresponse for Survey Design—❖ Roger Tourangeau, University of Maryland

ML36 Optimization of Survey Procedures in the Presence of Limited Cost Information—❖ John L. Eltinge, Bureau of Labor Statistics

172 — CC-4C-3
Social Statistics Section Roundtable with Lunch (fee event)

Social Statistics Section

Organizer(s): Allen Schirm, Mathematica Policy Research, Inc.

ML37 The Future of U.S. Income Statistics—❖ Connie Citro, Committee on National Statistics

Special Presentation 2:00 pm–3:50 pm

173 — CC-4C-4
Late-Breaking Session #1: Statistical/Mathematical Challenges in Biodefense Immune Modeling—Other

The ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Hulin Wu, University of Rochester

Chair(s): Andrei Yakovlev, University of Rochester

2:05 pm **A Kernel Method for Subpopulation Discovery and Analysis in Polychromatic Flow Cytometry—** David Foster, Duke University; Cliburn Chan, Duke University; ❖ Thomas B. Kepler, Duke University

2:30 pm **Multidimensional Scaling Analysis To Study Temporal Transcriptome Fingerprint Clustering in Human Dendritic Cells Infected with Wild-Type and Chimeric Viruses—**❖ Yongchao Ge, Mount Sinai School of Medicine; Ana Fernandez-Sesma, Mount Sinai School of Medicine; Thomas M. Moran, Mount Sinai School of Medicine; Stuart C. Sealfon, Mount Sinai School of Medicine

2:55 pm **Data Analysis for Multiplex Assays—**❖ Shlomo Ta'asan, Carnegie Mellon University

3:20 pm **Identifiability and Statistical Inverse Problems for Biomedical Dynamic Systems—**❖ Hulin Wu, University of Rochester

3:45 pm **Floor Discussion**

Invited Sessions 2:00 pm–3:50 pm

174 — CC-205
Bayesian Finance—Invited

Business and Economics Statistics Section, Section on Bayesian Statistical Science

Organizer(s): Robert E. McCulloch, The University of Chicago; Nicholas Polson, The University of Chicago

Chair(s): Robert E. McCulloch, The University of Chicago

2:05 pm **Random Field and Affine Models for Interest Rates: an Empirical Comparison—**❖ Alan Bester, The University of Chicago

2:30 pm **Optimal Filtering of Jump-Diffusions: Extracting Latent States from Asset Prices—**❖ Michael Johannes, Columbia University; Nicholas Polson, The University of Chicago; Jonathan Stroud, University of Pennsylvania

2:55 pm **Macroeconomic Filtering from the Yield Curve—**❖ Satadru Hore, The University of Chicago

3:20 pm Disc: Nicholas Polson, The University of Chicago

3:40 pm **Floor Discussion**

175 — CC-401

Monday

Section on Statistics in Sports Invited Session—Invited

Section on Statistics in Sports, Section on Statistical Education

Organizer(s): Kara Morgan,

Chair(s): Kara Morgan,

2:05 pm	**An Objective Scoring Method for Graded Count Variables with Applications to Olympics and Baseball**—❖ John Daniels, Central Michigan University
2:35 pm	**Evaluation and Analysis of the Impact of Recruiting on College Football**—❖ Justin W. Davis, University of Missouri-Columbia; David Annis, Naval Postgraduate School
3:05 pm	**The Combination of Subjective Judgment with Statistical Projections in the Evaluation of a Baseball Player**—❖ Sig Mejdal, St. Louis Cardinals
3:35 pm	**Floor Discussion**

176   CC-3B

✪ Forensic Statistics—Invited

Section on Statisticians in Defense and National Security

Organizer(s): David Banks, Duke University

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

2:05 pm	**Another Look at the Kennedy Assassination**—❖ Clifford Spiegelman, Texas A&M University
2:35 pm	**Forensic Statistics: Intelligence, Evidence, and Law**—❖ David Kaye, Arizona State University
3:05 pm	**The Probative Value of Trace Evidence: What Sources of Error Are Really Important?**—❖ Alicia Carriquiry, Iowa State University
3:35 pm	**Floor Discussion**

177   CC-604

● Variance Estimation in the Presence of Nonresponse and Outliers—Invited

Section on Survey Research Methods

Organizer(s): Ralf T. Mˌnnich, University of Trier

Chair(s): Phillip S. Kott, National Agricultural Statistics Service

2:05 pm	**Estimation of the Total Variance of Survey Statistics under Unweighted Imputation**—❖ Santanu Pramanik, University of Maryland; Partha Lahiri, University of Maryland
2:30 pm	**Adjusted Jackknife for Imputation under Unequal Probability Sampling without Replacement**—❖

Yves G. Berger, The University of Reading; Jon N. K. Rao, Carleton University

2:55 pm	**Variance Estimation for Complex Surveys in the Presence of Outliers**—❖ Ralf T. Mˌnnich, University of Trier; Beat Hulliger, Swiss Federal Statistical Office
3:20 pm	Disc: Susanne R‰ssler, Institute for Employment Research
3:40 pm	**Floor Discussion**

178   CC-210

● ✪ Statistical Issues in Disaster Response—Invited

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

Organizer(s): Sarah Michalak, Los Alamos National Laboratory

Chair(s): Sarah Michalak, Los Alamos National Laboratory

2:05 pm	**Statistical GeoInformatics of Hotspot Detection and Prioritization for Early Warning and Disaster Management**—❖ Ganapati P. Patil, Penn State; Luiz Duczmal, Universidade Federal de Minas Gerais; Reza Modarres, The George Washington University; Stephen L. Rathbun, University of Georgia
2:30 pm	**Changing Perspectives in the Analysis of Natural Disaster Data**—❖ Maria J. Sirois, Tulane University; David Banks, Duke University
2:55 pm	**Preparing for a Disaster**—❖ Vicki M. Bier, University of Wisconsin-Madison; Lee Clarke, Rutgers University
3:20 pm	Disc: David Banks, Duke University
3:40 pm	**Floor Discussion**

179   CC-613

● ✪ Statistical Methods in Climate Modeling and Seismology—Invited

WNAR, Section on Physical and Engineering Sciences, Section on Bayesian Statistical Science, Section on Statistics and the Environment

Organizer(s): Gabriel Huerta, University of New Mexico

Chair(s): Gabriel Huerta, University of New Mexico

2:05 pm	**Probabilistic Projections of Climate Change: Bayesian Models for Analyzing Ensembles of Global Climate Models**—❖ Claudia Tebaldi, National Center for Atmospheric Research; Richard L. Smith, The University of North Carolina at Chapel Hill; Douglas W. Nychka,

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

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National Center for Atmospheric Research; Linda O. Mearns, National Center for Atmospheric Research

2:35 pm	**Uncertainty Estimation in Geophysics**—❖ Mrinal K. Sen, The University of Texas at Austin
3:05 pm	**Estimating Parametric Uncertainties of the Community Atmospheric Model (CAM3) and Processes Controlling Global Climate Change**—❖ Charles S. Jackson, The University of Texas at Austin
3:35 pm	**Floor Discussion**

180 CC-609

Sensitivity Analysis for Missing Data and Causal Inference: Principles and Practice—Invited

Biometrics Section

Organizer(s): Joseph W. Hogan, Brown University

Chair(s): Michael Daniels, University of Florida

2:05 pm	**A Sensitivity Analysis Paradigm for Randomized Trials with Potentially Informative Censored Data**—❖ Daniel Scharfstein, Johns Hopkins Bloomberg School of Public Health
2:35 pm	**Mixture Models and Informative Priors for Analyzing Incomplete Longitudinal Data**—❖ Joseph W. Hogan, Brown University
3:05 pm	**Sensitivity Analysis for Instrumental Variables Regression with Overidentifying Restrictions**—❖ Dylan S. Small, University of Pennsylvania
3:35 pm	**Floor Discussion**

181 CC-211

Management of Statistical Decisionmaking in a Large Organization—Invited

Section on Physical and Engineering Sciences, Section on Statistical Education, Section on Statistical Consulting

Organizer(s): Sarah Kalicin, Intel Corporation

Chair(s): Sarah Kalicin, Intel Corporation

2:05 pm	**Maximizing the Effectiveness of Statistical Resources in Industry**—❖ Henry T. Davis, Becton, Dickinson, and Company
2:30 pm	**The Future of Corporate Statistics Organizations**—❖ Roger W. Hoerl, GE Global Research
2:55 pm	**Teaching Engineers To Think Statistically**—❖ Scott A. Pardo, Purdue Frederick Labs
3:20 pm	**Collaboration with Nonstatisticians**—❖ Joanne

Wendelberger, Los Alamos National Laboratory

3:45 pm	**Floor Discussion**

182 CC-3A

● ✪ Genome-Wide Association Studies—Invited

Section on Statistical Computing, Biometrics Section, ENAR, WNAR

Organizer(s): Charles Kooperberg, Fred Hutchinson Cancer Research Center

Chair(s): Michael LeBlanc, Fred Hutchinson Cancer Research Center

2:05 pm	**Genome-Wide Disease Gene Mapping by Association Analysis**—❖ Jurg Ott, The Rockefeller University
2:30 pm	**The Genetics of Insulin Resistance: Clusters and SNPs**—❖ Richard A. Olshen, Stanford University
2:55 pm	**Identifying Interactions in Genome-Wide Association Studies**—❖ Charles Kooperberg, Fred Hutchinson Cancer Research Center
3:20 pm	**Choices and Consequences of Genetic Marker Selection on Whole-Genome Association Scans**—❖ Lon Cardon, University of Oxford
3:45 pm	**Floor Discussion**

183 CC-619

Regression Models with Functional Predictors—Invited

Section on Nonparametric Statistics

Organizer(s): Philip Reiss, Columbia University

Chair(s): Philip Reiss, Columbia University

2:05 pm	**Functional Variance Processes and Volatility Modeling**—❖ Hans-Georg Mueller, University of California, Davis
2:35 pm	**Interpretable Functional Regression Models**—❖ Gareth James, University of Southern California
3:05 pm	**Aspects of Feature Selection in Functional Data**—❖ Philip J. Brown, University of Kent
3:35 pm	**Floor Discussion**

184 CC-611

Threshold Regression Models and Applications—Invited

Section on Statistics in Epidemiology

Organizer(s): Mei-Ling T. Lee, The Ohio State University

Chair(s): Marvin Zelen, Harvard School of Public Health

2:05 pm	**Threshold Regression for Survival Analysis: Modeling Event Occurrence When Latent Health**

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Status Decreases to a Threshold—❖ George A. Whitmore, McGill University

2:30 pm	**Application of Threshold Regression in Analyzing Lung Cancer Rates in Women**—❖ Mei-Ling T. Lee, The Ohio State University; Bernard Rosner, Harvard Medical School
2:55 pm	**Latent Process Models with Multiple Types of Observations**—❖ Daniel Commenges, UniversitÈ Bordeaux
3:20 pm	Disc: David Oakes, University of Rochester Medical Center
3:40 pm	**Floor Discussion**

Topic-Contributed Sessions
2:00 pm–3:50 pm

185   CC-618
● Applications of Machine Learning Techniques in Bioinformatics and Other Areas—Topic-Contributed

Biometrics Section, Section on Nonparametric Statistics, ENAR

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

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

2:05 pm	**Graph-Based Classifiers in Semi-Supervised Learning**—❖ George Michailidis, University of Michigan
2:25 pm	**Estimating Differential Equation Models of Gene Expression Dynamics**—❖ Theodore Perkins, McGill University
2:45 pm	**Statistical Models on Protein Complex Alignments**—❖ Tony Chiang, Fred Hutchinson Cancer Research Center
3:05 pm	**Neural Network Imputation: an Experience with the National Resources Inventory Survey**—❖ Tapabrata Maiti, Iowa State University
3:25 pm	**Analyzing Gene Expression Data Using Tree-Based Models**—❖ Bret Musser, Merck Research Laboratories
3:45 pm	**Floor Discussion**

186   CC-610
● Postmarket Issues in Medical Devices—Topic-Contributed

Biopharmaceutical Section

Organizer(s): Steve Boeh, Medtronic, Inc.

Chair(s): Steve Boeh, Medtronic, Inc.

2:05 pm	**Limiting Distributions of Resistances for Specific Radiation Sterilization Doses**—❖ Harry Bushar, DHHS/PHS/FDA/CDRH/OSB/DBS
2:25 pm	**Issues Encountered in Statistical Analyses of Complex Experimental Medical Device Data**—❖ Hollington Lu, Center for Devices and Radiological Health; Barbara Krasnicka, U.S. Food and Drug Administration
2:45 pm	**Frailty Model for Assessing Treatment Effect between Bare-Metal and Drug-Eluting Stents with Multiple Cardiac Events: Experience from Post-Marketing Registries**—❖ So Jung Imm, Boston Scientific Corporation; Scott Wehrenberg, Boston Scientific Corporation; Aijun Song, Boston Scientific Corporation; Zheng Zhou, Boston Scientific Corporation
3:05 pm	**Multiple Imputation for Missing Data in Propensity Score Generation: Application in Comparing Two Stenting Techniques Using Post-Marketing Registry Data**—❖ Aijun Song, Boston Scientific Corporation; Scott Wehrenberg, Boston Scientific Corporation; Zheng Zhou, Boston Scientific Corporation
3:25 pm	Disc: Andrew Mugglin, University of Minnesota
3:45 pm	**Floor Discussion**

187   CC-2B
● ✪ Bayesian Applications in Medical Devices—Topic-Contributed

Section on Bayesian Statistical Science, Biometrics Section, ENAR

Organizer(s): Yihua Zhao, U.S. Food and Drug Administration; Gosford Sawyerr,

Chair(s): Yihua Zhao, U.S. Food and Drug Administration

2:05 pm	**Using Auxiliary Information in Clinical Trials**—❖ Shu Han, Guidant Corporation; Donald Berry, The University of Texas
2:25 pm	**The Role of Accrual Rate and Follow-up Time in a Bayesian Adaptive Design**—❖ Xuefeng Li, U.S. Food and Drug Administration
2:45 pm	**A Tiered Treatment Design for a Historically Controlled Medical Device Clinical Trial**—❖ Alistair O'Malley, Harvard Medical School
3:05 pm	**How Bayesian Hierarchical Models Handle Multiplicity Issues Automatically: a Case Study in a Medical Device Trial**—❖ Feng Tang, Medtronic,

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Inc.; Lou Sherfesee, Medtronic, Inc.; Andrew Mugglin, University of Minnesota

3:25 pm   Disc: Cynthia DeSouza,

3:45 pm   **Floor Discussion**

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188   CC-606

Statistical Methods for Evaluating Racial-Ethnic Disparities in Health—Topic-Contributed

Section on Health Policy Statistics

Organizer(s): Marc Elliott, RAND Corporation

Chair(s): Marika Suttorp, RAND Corporation

2:05 pm   **A New Method for Estimating Racial/Ethnic Disparities Where Administrative Records Lack Self-Reported Race/Ethnicity**—❖ Marc Elliott, RAND Corporation; Allen Fremont, RAND Corporation; Nicole Lurie, RAND Corporation; Peter A. Morrison, RAND Corporation; Philip Pantoja, RAND Corporation; Allan Abrahamse, RAND Corporation

2:25 pm   **Power of Tests for a Dichotomous Independent Variable Measured with Error**—❖ Daniel McCaffrey, RAND Corporation; Marc Elliott, RAND Corporation

2:45 pm   **Improving the Accuracy of Health Estimates for Small Racial-Ethnic Groups by Weighted Pooling over Time**—❖ Brian Finch, San Diego State University; Marc Elliott, RAND Corporation; Daniel McCaffrey, RAND Corporation; David Klein, RAND Corporation; Daniela Golinelli, RAND Corporation

3:05 pm   **Differential Use of 0-10 Rating Scales by Racial-Ethnic Minorities in CAHPSÆ**—❖ Robert Weech-Maldonado, University of Florida; Marc Elliott, RAND Corporation; K. Cameron Schiller, University of Florida; Ron D. Hays, University of California, Los Angeles

3:25 pm   Disc: William D. Kalsbeek, The University of North Carolina at Chapel Hill

3:45 pm   **Floor Discussion**

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189   CC-620

● Ranked Sampling I—Topic-Contributed

Section on Nonparametric Statistics

Organizer(s): Omer Ozturk, The Ohio State University

Chair(s): S. LynneStokes, Southern Methodist University

2:05 pm   **New Imperfect Rankings Models for Ranked-Set Sampling**—❖ Jesse Frey, Villanova University

2:25 pm   **Ranked Set Sample Inference under the Constraint of Stochastic Ordering of Judgment Ranking Classes**—❖ Omer Ozturk, The Ohio State University

2:45 pm   **Concomitant of Multivariate Order Statistics with Application to Judgment Post-Stratification**—❖ Xinlei Wang, Southern Methodist University; S. Lynne Stokes, Southern Methodist University; Johan Lim, Texas A&M University; Min Chen, The University of Texas at Austin

3:05 pm   **Approximate Confidence Intervals from a Ranked Set Sample**—❖ Christopher Sroka, The Ohio State University; Elizabeth Stasny, The Ohio State University; Douglas Wolfe, The Ohio State University

3:25 pm   Disc: Douglas Wolfe, The Ohio State University

3:45 pm   **Floor Discussion**

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190   CC-608

Synthetic Data or No Data: Choices in Disclosure Avoidance Methods—Topic-Contributed

Section on Government Statistics

Organizer(s): J. NeilRussell, National Center for Education Statistics

Chair(s): J. NeilRussell, National Center for Education Statistics

2:05 pm   **U.S. Census Bureau Disclosure Avoidance Practices and Research: an Update for JSM 2006**—❖ Laura Zayatz, U.S. Census Bureau

2:25 pm   **Part 2: Myth & Reality - Complementary Cell Suppression**—❖ Ramesh Dandekar, Energy Information Administration

2:45 pm   **Partial Synthesis for Disclosure Avoidance**—❖ Sam Hawala, U.S. Census Bureau

3:05 pm   **The Disclosure Limitation Protocol for the Census Bureau's 'On the Map' Origin-Destination Transportation Application**—❖ Fredrik Andersson, Cornell University; John Abowd, Cornell University; Marc Roemer, U.S. Census Bureau

3:25 pm   **Inferences on Two-Stage, Multiply-Imputed Data**—❖ Satkartar Kinney, Duke University; Jerome Reiter, Duke University

3:45 pm   **Floor Discussion**

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191   CC-601

● Census Coverage Measurement—Topic-

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Contributed

Section on Survey Research Methods

Organizer(s): Richard Griffin, U.S. Census Bureau

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

2:05 pm **2010 Census Coverage Measurement: Initial Results of Net Error Empirical Research Using Logistic Regression**—❖ Richard Griffin, U.S. Census Bureau; Thomas Mule, U.S. Census Bureau; Doug Olson, U.S. Census Bureau

2:25 pm **2010 Census Coverage Measurement Research on Person Coverage Estimates by Housing Unit Enumeration Status**—❖ Vincent Mule, U.S. Census Bureau

2:45 pm **A Nonparametric Approach to Census Population Size Estimation**—❖ Song X. Chen, Iowa State University; Chengyong Tang, Iowa State University; Jean D. Opsomer, Iowa State University; Sarah M. Nusser, Iowa State University

3:05 pm **2010 Census Coverage Measurement: the Hunt for the Magic Variables**—❖ Eric Schindler, U.S. Census Bureau

3:25 pm **Framework for Census Coverage Error Components**—❖ Mary Mulry, U.S. Census Bureau; Donna Kostanich, U.S. Census Bureau

3:45 pm **Floor Discussion**

Topic-Contributed Panels
2:00 pm–3:50 pm

192 **CC-2A**

● Hiring a Consulting Statistician: What We Look for—Topic-Contributed

Section on Statistical Consulting, Section on Statistical Education

Organizer(s): Christina M. Gullion, Kaiser Permanente Center for Health Research

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

Panelists: ❖ Christina M. Gullion, Kaiser Permanente Center for Health Research

❖ K. B. Boomer, Penn State

❖ Fred Hulting, General Mills, Inc.

❖ Don Harder, Eli Lilly and Company

3:45 pm **Floor Discussion**

193 **CC-607**

● ✪ The Promise and Potential of the American Community Survey—Topic-Contributed

Social Statistics Section

Organizer(s): Charles Hirschman, University of Washington

Chair(s): Susan Schechter, Office of Management and Budget

Panelists: ❖ Charles Hirschman, University of Washington

❖ Linda Gage, California Department of Finance

❖ Linda Jacobsen, Population Reference Bureau

3:45 pm **Floor Discussion**

194 **CC-201**

● Learning from and Applying Statistics Education Research to Our Own Teaching—Topic-Contributed

Section on Statistical Education

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

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

Panelists: ❖ Christine Franklin, University of Georgia

❖ Roxy Peck, California Polytechnic State University, San Luis Obispo

❖ Robert Gould, University of California, Los Angeles

❖ Joy Jordan, Lawrence University

3:35 pm **Floor Discussion**

Regular Contributed Sessions
2:00 pm–3:50 pm

195 **CC-603**

● Sample Survey Design II—Contributed

Section on Survey Research Methods

Chair(s): Michael E. Jones, Westat

2:05 pm **Properties and Modifications of a Probability Proportional to Size Sampling Procedure**—❖ Lawrence R. Ernst, Bureau of Labor Statistics

2:20 pm **Supplementing RDD Surveys with Web-Based Survey Data**—❖ Karol Krotki, RTI International

2:35 pm **Comparison of Mixed-Mode and Address Frame Designs to Random Digit Dialing for General Population Surveys**—❖ Michael W. Link, Centers for Disease Control and Prevention; Michael P. Battaglia, Abt Associates Inc.; Martin R. Frankel, Abt Associates Inc.; Larry Osborn, Abt Associates

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2:50 pm　**Probability Sample Designs that Impose Superpopulation Models on Survey Data**—❖ Stephen Woodruff,

3:05 pm　**A Review of the Sample Design for the 2001, 2003, and 2005 California Health Interview Survey**—❖ Ismael Flores Cervantes, Westat; Michael E. Jones, Westat; Laura Alvarez-Rojas, Westat; J. Michael Brick, Westat; John H. Kurata, University of California, Los Angeles; David Grant, University of California, Los Angeles

3:20 pm　**Comparing Alternate Designs for a Multidomain Cluster Sample**—Pedro Saavedra, ORC Macro; ❖ Mareena McKinley Wright, ORC Macro; Joseph P. Riley, U.S. Department of Housing and Urban Development

3:35 pm　**The Impact of Unequal Minority Distribution across Schools on PPS Oversampling Methods**—❖ William Robb, ORC Macro; Joshua Brown, ORC Macro; James Ross, ORC Macro; Ronaldo Iachan, ORC Macro

196　　CC-602
● Nonresponse, Imputation, and Estimation—Contributed
Section on Survey Research Methods

Chair(s): Steven Pedlow, NORC

2:05 pm　**Multiple Imputation for Incomplete Multivariate Data Under a Latent-Class Selection Model**—❖ Hyekyung Jung, Penn State; Joseph L. Schafer, Penn State

2:20 pm　**Inferences on Missing Information and the Number of Imputation**—❖ Ofer Harel, University of Connecticut

2:35 pm　**Enhancements to the 2006 Canadian Census Edit and Imputation System**—❖ Wesley Benjamin, Statistics Canada

2:50 pm　**Separating the Wheat from the Chaff: the Search for the Best Imputation Methodology**—❖ Paula Weir, Energy Information Administration; Pedro Saavedra, ORC Macro

3:05 pm　**Analyses of Measures of Respondent Burden at the National Agricultural Statistics Service**—❖ Fatu Wesley, U.S. Department of Agriculture

3:20 pm　**Multiple Imputation for Response Biases in NLAAS Due to Survey Instruments**—❖ Jingchen Liu, Harvard University; Xiao-Li Meng, Harvard

University; Chihnan Chen, Boston University; Margarita Alegria, Cambridge Health Alliance

3:35 pm　**Multiple Imputation Strategy for Alameda County Study**—❖ Irina Bondarenko, University of Michigan; Trivellore E. Raghunathan, University of Michigan

197　　CC-203
● ✪ Challenges and Innovative Methods for Teaching Biostatistics in the Health Sciences—Contributed
Section on Teaching Statistics in the Health Sciences

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

2:05 pm　**The Implications of the Increasing Sophistication of Statistical Methods in The New England Journal of Medicine**—❖ Suzanne Switzer, Smith College; Nicholas J. Horton, Smith College

2:20 pm　**How To Reduce the Risk of Nervous Breakdown in Physicians Taking an Introductory Biostatistics Course**—❖ Patrick Arbogast, Vanderbilt University

2:35 pm　**Learner-Centered Approach to Biostatistics in Health Sciences Settings**—❖ Ralph Turner, University of the Sciences in Philadelphia

2:50 pm　**Basic Biostats: Online Learning versus Onsite Learning**—❖ John McGready, The Johns Hopkins University

3:05 pm　**The Design and Evaluation of Computer-Assisted Instruction on Biostatistics: an Example of Central Limit Theorem**—❖ Lai-Chu See, Chang Gung University; Yu Hsuan Huang, Chang Gung Memorial Hospital; Yi Hua Chang, Chang Gung University; Pei-I Peng, Chang Gung University

3:20 pm　**Enhancing Medical Students' Understanding of Risk Information Using a Large Group Interactive Audience Response System**—❖ Fredric Wolf, University of Washington; David Masuda, University of Washington; Linda Pinsky, University of Washington

3:35 pm　**Floor Discussion**

198　　CC-614
● Advances in Graphical Methods—Contributed
Section on Statistical Graphics

Chair(s): Li Li, George Mason University

2:05 pm　**Letter Value Box Plots: Box Plots for Large**

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✿ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Datasets—❖ Karen Kafadar, University of Colorado; Heike Hofmann, Iowa State University; Hadley Wickham, Iowa State University

2:20 pm **Censored Q-Q Plot: Diagnostic Tool for Checking Population Heteroscedasticity**—❖ Jong Kim, Portland State University

2:35 pm **Variations on the Histogram**—❖ Lorraine Denby, Avaya Labs Research; Colin Mallows, Avaya Labs Research

2:50 pm **Ideas about Forestry Data Visualization**—❖ Lutong Zhou, University of Western Ontario; Willard J. Braun, University of Western Ontario

3:05 pm **Of Forests, Trees, and Logs: Application and Visualization of Tree-Based Methods for Large Data**—❖ Simon Urbanek, AT&T Labs-Research

3:20 pm **Simple Visualizations of Paired Comparisons**—❖ Spencer Graves, PDF Solutions, Inc.; Hans-Peter Piepho, University of Hohenheim

3:35 pm **Floor Discussion**

199   CC-612

● ✿ Longitudinal Models—Contributed

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Chair(s): Owen Devine, Centers for Disease Control and Prevention

2:05 pm **Modeling Individual Addition Behavior Using a Mixed-Effect Model with Three States**—❖ Sheng Luo, The Johns Hopkins University; Ciprian M. Crainiceanu, The Johns Hopkins University; Thomas A. Louis, The Johns Hopkins University; Nilanjan Chatterjee, National Cancer Institute

2:20 pm **Quantile Regression Methods for Modeling CD4 T-Cell Trajectory among HIV-Infected Men and Women on Long Term, Highly Active Antiretroviral Therapy**—❖ Haitao Chu, Johns Hopkins Bloomberg School of Public Health; Ying Wei, Columbia University; Alvaro Munoz, Johns Hopkins Bloomberg School of Public Health; Stephen J. Gange, Johns Hopkins Bloomberg School of Public Health

2:35 pm **On the Equivalence of Case-Crossover and Time-Series Methods**—❖ Yun Lu, The Johns Hopkins University; Scott Zeger, The Johns Hopkins University

2:50 pm **Analysis of Longitudinal Trinomial Outcome through a Surrogate Variable**—❖ Wenyaw Chan, The University of Texas School of Public Health; Yen-Peng Li, The University of Texas Health

Science Center at Houston; Hung-Wen Yeh, The University of Texas School of Public Health

3:05 pm **The Log Multinomial Regression Model for Nominal Outcomes with More Than Two Attributes**—❖ Leigh Blizzard, Menzies Research Institute; David W. Hosmer, University of Massachusetts

3:20 pm **Bayesian Hierarchical Models for Racial and Socioeconomic Predictors of Mortality in a Sample of the U.S. Medicare Population**—❖ Yijie Zhou, The Johns Hopkins University; Francesca Dominici, The Johns Hopkins University; Thomas A. Louis, The Johns Hopkins University

3:35 pm **Bayesian Estimation for Epidemic Models on a Social Network**—❖ Crystal Linkletter, Simon Fraser University; Randy R. Sitter, Simon Fraser University; Nicolas Hengartner, Los Alamos National Laboratory

200   CC-605

Choice Experiments in Marketing—Contributed

Section on Statistics and Marketing

Chair(s): Arindam RoyChoudhury, University of Washington

2:05 pm **Managing Large Conjoint Studies**—❖ Ulderico Santarelli, Consultant

2:20 pm **Designing a Stated Choice Survey To Study Food Product Eco-Labels**—❖ Iain Pardoe, University of Oregon

2:35 pm **Fusing Best/Worst Choices and Ratings Data for Comparisons on a Common Scale**—❖ Lynd D. Bacon, Sighthound Solutions, Inc.; Peter J. Lenk, University of Michigan; Katya Seryakova, Knowledge Networks, Inc.

2:50 pm **The Impact of Choice Set Complexity on Respondent Screening Behavior**—❖ Joseph Retzer, Maritz Research

3:05 pm **Partial Profile Choice Experiments: an Assessment**—❖ Terry Elrod, University of Alberta

3:20 pm **Misspecification and Decision Strategies in Choice Design Parameter Assumptions**—❖ Jennifer Golek, DuPont; Robert W. Mee, University of Tennessee

3:35 pm **Thurstone Scaling via Maximum Likelihood in Order Statistics**—❖ Stan Lipovetsky, GfK-CRI

201   CC-213

● **Statistical Methods and Ecological Applications—Contributed**

Section on Statistics and the Environment

Chair(s): Samantha C. Prins, Virginia Tech

2:05 pm **Choice of Weights in Meta-Analysis of Mark-Recapture Survival Studies—**❖ James R. Faulkner, U.S. Department of Commerce; Steven G. Smith, U.S. Department of Commerce

2:20 pm **Trend Estimation in a Periodic Survey of North-American Waterfowl—**❖ Mark Otto, U.S. Fish and Wildlife Service

2:35 pm **Bayesian Spatio-Temporal Models for Radio-Telemetry Contacts—**❖ Albert N. Hendrix, R2 Resource Consultants, Inc.; Rip Shively, U.S. Geological Survey; Barbara Adams, U.S. Geological Survey

2:50 pm **Evaluating Sampling Approaches for Monitoring Chronic Wasting Disease (CWD) in Deer Populations—**❖ Ling Huang, Iowa State University; Sarah M. Nusser, Iowa State University; William R. Clark, Iowa State University; David L. Otis, Iowa State University

3:05 pm **The Federally Threatened Plant Species, Missouri Bladderpod: Model Selection and Validation—**❖ William Leeds, Truman State University; Hyun-Joo Kim, Truman State University; Corey Elledge, Truman State University; Michael Kelrick, Truman State University; Elizabeth Bobzien, Truman State University; James Franklin, Truman State University

3:20 pm **Effects of Sample Survey Design on the Accuracy of Classification Tree Models in Ecology—**❖ Thomas C. Edwards, U.S. Geological Survey; D. Richard Cutler, Utah State University; Gretchen Moisen, U.S. Forest Service; Niklaus E. Zimmermann, Swiss Federal Research Institute WSL; Linda Geiser, U.S. Department of Agriculture

3:35 pm **Spatio-Temporal Analysis Incorporating a Spatial Correlation Structure on a Long-Term Forestry Field Research Dataset—**❖ Bronson Bullock, North Carolina State University; Edward Boone, The University of North Carolina at Wilmington

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202 CC-616

● **Biostatistical Modeling—Contributed**

Biometrics Section, Section on Bayesian Statistical Science, ENAR

Chair(s): Louise Ryan, Harvard School of Public Health

2:05 pm **Inter-Rater Reliability of Pressure Ulcer Staging: Ordinal Probit Bayesian Hierarchical Model That Allows for Uncertain Rater Response—**❖ Byron Gajewski, The University of Kansas Medical Center; Sara Hart, The University of Kansas Medical Center; Sandra Bergquist-Beringer, The University of Kansas Medical Center; Nancy Dunton, The University of Kansas Medical Center

2:20 pm **A Random-Effects Four-Part Model for Longitudinal Medical Costs—**❖ Lei Liu, University of Virginia; Mark R. Conaway, University of Virginia

2:35 pm **Bayesian Analysis of Repeated Data with Many Zeros: Application to the Longitudinal Adolescent Substance Abuse Study—**❖ Hyonggin An, The University of Iowa

2:50 pm **Repeated Measures Mixture Modeling with Applications to Postmortem Tissue Studies in Schizophrenia—**❖ Zhuoxin Sun, Dana-Farber Cancer Institute; Ori Rosen, The University of Texas at El Paso; Allan R. Sampson, University of Pittsburgh

3:05 pm **A Hidden Markov Model To Describe Responses to Alcoholism Treatment—**❖ Kenneth Shirley, University of Pennsylvania; Dylan S. Small, University of Pennsylvania

3:20 pm **Mixture Gaussian Model-Based Bayesian Clustering—**❖ Wei Zhang, Harvard University

3:35 pm **Modeling Distortion Product Otoacoustic Emissions Using Noncentral-F Mixed Effects Models—**❖ Lai Wei, The Ohio State University; Peter F. Craigmile, The Ohio State University; Wayne M. King, The Ohio State University; Stephanie Jones, The Ohio State University

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203 CC-617

● **Methodology for Survival and Censored Data—Contributed**

Biometrics Section, WNAR, ENAR

Chair(s): Sudipto Banerjee, University of Minnesota

2:05 pm **Constructing Multivariate Prognostic Expression Profiles for Survival Endpoints—**❖ Derick R. Peterson, University of Rochester; Alexander Pearson, University of Rochester

2:20 pm **Predict Survival using Gene Expression Data under Cox PH Models—**❖ Wenqing He,

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University of Western Ontario; Grace Y. Yi, University of Waterloo

2:35 pm   **Model Combining in Survival Analysis**—❖ Lihua Chen, The University of Toledo

2:50 pm   **Median Regression Analysis from Doubly Censored Data**—❖ Sundar Subramanian, University of Maine

3:05 pm   **Smoothed Bootstrap-Based Bandwidth Estimation**—❖ Derek Bean, University of Maine; Sundar Subramanian, University of Maine

3:20 pm   **Equivalences of Nonparametric Estimators and Noninformative Censoring Conditions**—❖ Yingfu Li, University of Houston-Clear Lake; Jiantian Wang, Kean University

3:35 pm   **Floor Discussion**

204   CC-400
Mixed Models and Data Mining—Contributed
Section on Statistical Computing

Chair(s): Hasan Hamdan, James Madison University

2:05 pm   **A Comparison of the Reporting of Problems Encountered in the Estimation of Covariance Parameters in Linear Mixed Models Using SAS, SPSS, R, Stata, and HLM**—❖ Brady West, University of Michigan; Kathy Welch, University of Michigan; Andrzej Galecki, University of Michigan

2:20 pm   **A Note on Testing of Hypothesis of Kroneckar Product Covariance Structure in Doubly Multivariate Data**—❖ Anuradha Roy, The University of Texas at San Antonio

2:35 pm   **On Hierarchical Linear Mixed Modeling Using the Multivariate t Distribution with Missing Information**—❖ Tsung-I Lin, National Chung Hsing University; Jack C. Lee, National Chiao Tung University

2:50 pm   **Automatic Approximation of the Marginal Likelihood in Non-Gaussian Hierarchical Models**—❖ Hans J. Skaug, University of Bergen; David A. Fournier, Otter Research Ltd.

3:05 pm   **Adversarial Learning**—❖ Bowei Xi, Purdue University; Murat Kantarcioglu, The University of Texas at Dallas; Chris Clifton, Purdue University

3:20 pm   **Maximum Entropy Data Camouflaging**—❖ Kurt Pflughoeft, Market Probe; Ehsan S. Soofi, University of Wisconsin-Milwaukee; Refik Soyer, The George Washington University

3:35 pm   **Floor Discussion**

205   CC-206
● ✪ A Changing World: Katrina, Children, Judges, and More—Contributed
Business and Economics Statistics Section

Chair(s): David Dickey, North Carolina State University

2:05 pm   **Statistics - Sociophysics - Mediaphysics (Statistical Physics of Social Mass Media Phenomena)**—❖ Dmitri V. Kuznetsov, Media Planning Group; Igor Mandel, Media Planning Group

2:20 pm   **The Impact of Hurricane Katrina on Business Establishments**—❖ Ron S. Jarmin, U.S. Census Bureau

2:35 pm   **Estimating the Change in the Gender Wage Gap When Employment Composition Changes: Evidence for Japan, 1987–2002**—❖ Daiji Kawaguchi, Hitotsubashi University; Hisahiro Naito, Tsukuba University

2:50 pm   **When Do Judges Explain Themselves?**—❖ Alan Izenman, Temple University; David Hoffman, Temple University

3:05 pm   **Do Regular Cycles Occur in American Politics?**—❖ Samuel Merrill, Wilkes University; Bernard Grofman, University of California, Irvine

3:20 pm   **Tolls, Exchange Rates, and International Bridge Traffic**—❖ Thomas Fullerton, The University of Texas at El Paso

3:35 pm   **High-Frequency Returns, Jumps, and the Mixture of Normals Hypothesis**—❖ Jeff Fleming, Rice University; Brad Paye, Rice University

206   CC-615
● Stochastic Processes with Applications—Contributed
Biometrics Section

Chair(s): Jamie McClave Baldwin, Info Tech, Inc.

2:05 pm   **Intensity Estimates for Spike Train Data Observed under Multiple Behavioral States**—❖ Matt Gregas, Harvard School of Public Health

2:20 pm   **Probabilistic Model To Evaluate Biological Process**—❖ Hrishikesh Chakraborty, RTI International; Pranab K. Sen, The University of North Carolina at Chapel Hill

2:35 pm   **Parametric Inference from Window-Censored**

Monday

Renewal Processes and Applications—❖ Yanxing Zhao, The Ohio State University; H. N. Nagaraja, The Ohio State University

2:50 pm **Stochastic Models for MRI Lesion Count Data from Patients with Relapsing Remitting Multiple Sclerosis**—❖ Xiaobai Li, The Ohio State University; H. N. Nagaraja, The Ohio State University

3:05 pm **Tracking Of Multiple Merging and Splitting Targets with Application to Convective Systems**—❖ Curtis Storlie, North Carolina State University

3:20 pm **An Efficient Algorithm for Exact Distribution of Discrete Scan Statistics**—❖ Morteza Ebneshahrashoob, California State University, Long Beach; Tangan Gao, California State University, Long Beach; Mengnien Wu, Tamkang University

3:35 pm **Floor Discussion**

207   CC-214
Estimating Functions, Goodness-of-Fit, and Smoothing for Nonparametric and Semiparametric Models—Contributed

IMS, Biometrics Section, Section on Nonparametric Statistics, ENAR

Chair(s): Qunhua Li, University of Washington

2:05 pm **Minimax Estimation Using Higher-Order Estimating Functions**—❖ Lingling Li, Harvard School of Public Health; Eric Tchetgen, Harvard School of Public Health; James Robins, Harvard School of Public Health; Aad van der Vaart, Vrije Universiteit Amsterdam

2:20 pm **Higher Order Influence Functions for Inference in Monotone Missing Data Models**—❖ Eric Tchetgen, Harvard School of Public Health; Lingling Li, Harvard School of Public Health; James Robins, Harvard School of Public Health; Aad van der Vaart, Vrije Universiteit Amsterdam

2:35 pm **Minimax Interval Estimation of Optimal Treatment Stategies**—❖ James Robins, Harvard School of Public Health; Eric Tchetgen, Harvard School of Public Health; Lingling Li, Harvard School of Public Health; Aad Van der Vaart, Amsterdam

2:50 pm **A Semi-Adaptive Smoothing Algorithm in Bispectrum Estimation**—❖ Wei Yang, University at Albany; Igor Zurbenko, University at Albany

3:05 pm **Estimation in Constrained Models**—❖ Hanxiang Peng, University of Mississippi

3:20 pm **Goodness-of-Fit Tests via Phi-Divergences**—❖ Leah R. Jager, University of Washington; Jon A. Wellner, University of Washington

3:35 pm **Extensions of the Penalized Spline Propensity Prediction Method for Monotone Missing Data**—❖ Guangyu Zhang, University of Michigan; Roderick J. Little, University of Michigan

208   CC-204
Advances in Bayesian Computation—Contributed

Section on Bayesian Statistical Science

Chair(s): Subhashis Ghosal, North Carolina State University

2:05 pm **Likelihood Subgradient Densities**—❖ Kjell Nygren, IMS Health; Lan Nygren, Rider University

2:20 pm **Likelihood Approximations in Bayesian Multiple Curve Fitting**—❖ Carsten Botts, Williams College; Michael Daniels, University of Florida

2:35 pm **Video Segmentation Using a Bayesian Online EM Algorithm**—❖ Johan Lindstrˆm, Lund University; Finn Lindgren, Lund University; Kalle ≈strˆm, Lund University; Jan Holst, Lund University; Ulla Holst, Lund University

2:50 pm **Two-Stage EM Algorithm on the Random Transfer Function Model**—❖ Hyunyoung Choi, University of California, Santa Barbara; Bonnie K. Ray, IBM T. J. Watson Research Center

3:05 pm **Bayesian Variable Selection in Clustering High Dimensional Data with Substructure**—❖ Michael D. Swartz, M. D. Anderson Cancer Center; Marina Vannucci, Texas A&M University
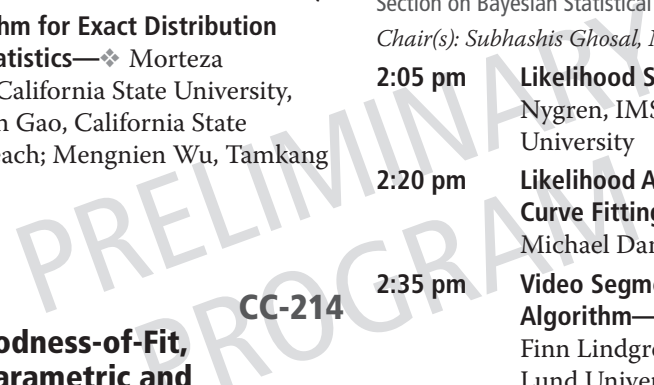
3:20 pm **Floor Discussion**

209   CC-212
Design and Analysis of Response Surface Experiments—Contributed

Section on Physical and Engineering Sciences

Chair(s): Jason Loeppky, The University of British Columbia

2:05 pm **Semiparametric Techniques for Response Surface Methodology**—❖ Stephanie Pickle, Virginia Tech; Jeffrey B. Birch, Virginia Polytechnic Institute and State University; Timothy Robinson, University of Wyoming

2:20 pm **Simulation-Based Inference on the Improvement in a Rotatable Response Surface**—❖ Robert Parody, Rochester Institute of Technology; Don

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Edwards, University of South Carolina

2:35 pm **Rethinking Steepest Ascent—**❖ Robert W. Mee, University of Tennessee; Jihua Xiao, University of Tennessee

2:50 pm **Sequential Methodology for Detecting Jumps in Complex Surfaces—**❖ Yan Lan, University of Michigan; George Michailidis, University of Michigan

3:05 pm **Minimal-Point Optimal Designs for Second-Order Response Surfaces—**❖ Ray-Bing Chen, National University of Kaohsiung; Yu-Jen Tsai, National University of Kaohsiung; Dennis K. J. Lin, Penn State

3:20 pm **Alphabet-Optimal Central Composite Designs—**❖ Trevor A. Craney, Sikorsky

3:35 pm **Orthogonal blocking in response surface designs with split-plot structure—**❖ Li Wang, Virginia Tech; Scott Kowalski, Minitab Inc.; Geoff Vining, Virginia Polytechnic Institute and State University

Regular Contributed Posters
2:00 pm–3:50 pm

210 CC-Level 6 East Lobby
Contributed Posters—Contributed

Business and Economics Statistics Section, Section on Statistical Education, Biopharmaceutical Section, Section on Statistics in Epidemiology, Section on Bayesian Statistical Science, Section on Teaching Statistics in the Health Sciences, Section on Health Policy Statistics, Social Statistics Section, WNAR, Section on Statistical Consulting, Section on Survey Research Methods, Section on Statistics and Marketing

Organizer(s): Maura E. Stokes, SAS Institute, Inc.

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Business, financial, and marketing statistics

01 Measuring Financial Data Quality Assessment and Improvement—❖ George Sirbu, Bentley College; Mary Ann Robbert, Bentley College; Donna Fletcher, Bentley College

02 Perceptions of Men versus Women in a Business Organization in 2005—❖ Kris Moore, Baylor University; Dawn Carlson, Baylor University; Amber St. Anant, Baylor University; Dwayne Whiten, Texas A&M University

03 Inference for a Hazard Rate Change Point under Dependent Censoring—❖ Nan Zhang, Rice University; Xuelin Huang, M. D. Anderson Cancer Center

04 Model Identification and Forecasting of Stationary Models with GARCH(P,Q) Errors—❖ Melody Ghahramani, University of Manitoba

05 The Magnet Effect of Price Limits: Evidence from Transactions Data—❖ Ping-Hung Hsieh, Oregon State University; Yong H. Kim, University of Cincinnati; J. Jimmy Yang, Oregon State University

06 Robust Granger Causality Tests in the VARX Framework—❖ Alex Maynard, University of Toronto; Dietmar Bauer, Arsenal Research

07 Uplift Modeling in Direct Marketing—❖ John Lin, Epsilon; Qizhi Wei, Epsilon

General

08 How Bad Could Your Data Be? Variance Maximization—❖ Jeffrey Stuart, Pacific Lutheran University

09 Characterizations of Factor Analytic Covariance Structure—❖ Timothy Costigan, Eli Lilly and Company

Health policy, public health

10 Assessment of Small-Area Estimates from a Complex Survey Cancer Surveillance Project—❖ Van Parsons, National Center for Health Statistics; Nathaniel Schenker, National Center for Health Statistics; Trivellore E. Raghunathan, University of Michigan; Dawei Xie, University of Pennsylvania; William Davis, National Cancer Institute

11 Disparities in the Age of Onset of Overweight (AOOW) among Persons 16 Years of Age and Older: NHANES 1999–2002—❖ Henry Xia, Centers for Disease Control and Prevention

Social and behavioral science

12 A Multivariate Statistical Analysis of Substance Abuse in the United States—❖ Monique Owens, SUMSRI at Miami University; Joshua Svenson, SUMSRI at Miami University

13 Adaptive Poisson Modeling of Medication Adherence In HIV-Positive Methadone Patients—❖ Kevin Delucchi, University of California, San Francisco; George Knafl, Oregon Health & Science University; Nancy Haug, University of California, San Francisco; James Sorensen, University of California, San Francisco

14 Assessing Publication Bias in Meta-analysis—❖ Xin Li, The University of Texas at Austin; Tasha Beretvas, The University of Texas at Austin

15 University Graduate Mentoring—❖ Terry Tomazic, Saint Louis University; Michael Donovan, Saint Louis University; John Hicks, Saint Louis University; Eric Watterson, Saint Louis University; Barry Katz, Saint

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Louis University

16   Gender Differences and Factors Affecting the Interface Performance Level—❖ Dennis Kira, Concordia University; Fassil Nebebe, Concordia University; Raafat G. Saade, Concordia University

Teaching, training, consulting

17   Statistical Analysis of Aphid Data: a Case Study for AP Statistics—❖ James Matis, Texas A&M University; Thomas Kiffe, Texas A&M University; Timothy Matis, Texas Tech University; Douglass Stevenson, Texas A&M University

18   Favorite Datasets from Early Phases of Drug Research: Part 6—Thomas E. Bradstreet, Merck Research Laboratories; ❖ Thomas H. Short, Indiana University of Pennsylvania

19   Statistics Jeopardy!Æ—❖ Neal Rogness, Grand Valley State University; Adam Weimer, The Ohio State University

20   Assessment of Learning in a Business Statistics Course: a Writing in the Disciplines Approach—❖ Maria de A. Medina-Vargas, University of Puerto Rico

21   Expectations for Statistical Literacy: a Comparison among Psychology, Business, and Public Health Professions—❖ S. David Kriska, Restat Systems; Mark C. Fulcomer, Richard Stockton College of New Jersey; Marcia M. Sass, University of Medicine & Dentistry of New Jersey

22   A Bayesian Model for Predicting the Probability of Additional Positive Axillary Nodes in Breast Cancer Patients with Positive Sentinel Lymph Node Biopsy—❖ Sunni A. Barnes, Mayo Clinic College of Medicine; Tanya Hoskin, Mayo Clinic College of Medicine; Cody Hamilton, Baylor Health Care System

23   Introducing Data Quality in the Classroom—❖ Mark C. Fulcomer, Richard Stockton College of New Jersey

24   A Menu System for Stats/List on the TI Voyage 200—❖ John Turner, U.S. Naval Academy

25   Program Assessment in Statistics at the Master's Level—❖ Julia Norton, California State University, East Bay; Lynn Eudey, California State University, East Bay

26   Discussing Factor Analysis in a 50-Minute Class Period—❖ J. Burdeane Orris, Butler University; Bruce Bowerman, Miami University of Ohio

27   Strategies for Making Your Curriculum Vita Numerical and Graphical for Promotion, Tenure, and Career Awards—❖ Charlie Goldsmith, McMaster University

28   Development of an Introductory Biostatistics Course for Graduate Students in Biomedical Sciences—❖ John Rutledge, Weill Medical College of Cornell University; Kylie Bryant, Weill Medical College of Cornell University; Kathy Zhou, Weill Medical College of Cornell University; Yolanda Barron, Weill Medical College of Cornell University; Anita Mesi, Weill Medical College of Cornell University; Heejung Bang, Cornell University; Eduardo Martinez-Ceballos, Weill Medical College of Cornell University; Lorraine Gudas, Weill Medical College of Cornell University; Selina Chen-Kiang, Weill Medical College of Cornell University; Madhu Mazumdar, Weill Medical College of Cornell University

Invited Sessions 4:00 pm–5:50 pm

211   CC-Ballroom 6ABC
President's Invited Session—Invited
The ASA, ENAR, WNAR, SSC, IMS
Organizer(s): Sallie Keller-McNulty, Rice University
Chair(s): Sallie Keller-McNulty, Rice University

4:05 pm   **A Data-Driven World: Why Now, and What Do We Do about It?**—❖ William R. Pulleyblank, IBM Business Consulting Services

5:35 pm   **Floor Discussion**

TUESDAY, AUGUST 8

Tours

9:00 am–1:00 pm   CC-Convention Plaza
TR06 - Historical Seattle Tour

1:00 pm–5:00 pm   CC-Convention Plaza
TR07 - Glassblowing Tour

Committee/Business Meetings & Other Activities

5:15 am–7:00 am   Off Property
Gertrude Cox Scholarship Race

7:00 am–10:00 am   S-Metropolitan Ballroom A

Council of Chapters Business Meeting and Breakfast (closed)

Chair(s): Ronald Wasserstein, Washburn University

7:00 am–10:00 pm   CC-Level 4 South Lobby
Cyber Center

7:00 am–6:00 pm   CC-507
Speaker Work Room

7:00 am–6:00 pm   CC-508
Speaker Work Room

7:00 am–8:30 am   S-Spruce Room
Business and Economics Statistics Section Executive Committee Meeting (closed)

Chair(s): Paul Shaman, University of Pennsylvania

7:00 am–8:30 am   S-Cedar Room
Section on Statisticians in Defense and National Security Business Meeting

Chair(s): Ron Fricker, Naval Postgraduate School

7:00 am–8:30 am   H-Chatham
Scientific and Public Affairs Advisory Committee Meeting

Chair(s): David Marker, Westat

7:00 am–8:30 am   H-Excelsior
Technometrics Editorial Board Meeting (closed)

Chair(s): Randy R. Sitter, Simon Fraser University

7:00 am–8:30 am   H-Discovery
Section on Quality and Productivity Executive Meeting (closed)

Chair(s): Christine M. Anderson-Cook, Los Alamos National Laboratory

7:00 am–8:30 am   CC-302
Committee on Statistics and Disability Annual Meeting (closed)

Chair(s): Joan Turek, U.S. Department of Health and Human Services

7:00 am–10:00 am   S-Ballard
Section on Physical and Engineering Sciences Executive Committee Meeting (closed)

Chair(s): Robert Wilkinson, Lubrizol

7:30 am–12:00 pm   S-Aspen Room
Biopharmaceutical Section Executive Committee

Meeting (closed)

Chair(s): Stacy Lindborg, Eli Lilly and Company

7:30 am–9:00 am   H-Cayuse
Project on Filming of Distinguished Statisticians (closed)

Organizer(s): Nitis Mukhopadhyay, University of Connecticut

7:30 am–4:30 pm   CC-Level 4 South Lobby
JSM Main Registration

7:30 am–4:30 pm   CC-Level 4 South Lobby
ASA Membership/Special Assistance Desk

8:00 am–4:00 pm   S-Admiral
ASA/NCTM Beyond AP Statistics (closed)

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

8:00 am–12:00 pm   H-Sherman
Committee of Presidents of Statistical Societies Committee Meeting (closed)

Organizer(s): Linda Young, University of Florida

8:00 am–6:00 pm   CC-Exhibit Hall 4A
Exhibitor Lounge

8:00 am–6:00 pm   CC-Exhibit Hall 4B
Career Placement Service

8:00 am–9:30 am   H-Portland
Section on Risk Analysis Executive Committee Meeting (closed)

Chair(s): Susan Sereika, University of Pittsburgh

8:30 am–10:00 am   S-Juniper
Section on Statistical Education Executive Committee Meeting (closed)

Chair(s): Christine Franklin, University of Georgia

9:00 am–6:00 pm   CC-Exhibit Hall 4A
ASA Communities Booth #101

9:00 am–5:00 pm   CC-Level 1
Citywide Concierge Center

9:00 am–5:00 pm   CC-Level 4 South Lobby
ASA Marketplace

9:00 am–6:00 pm   CC-Exhibit Hall 4A

Tuesday

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Tuesday

EXPO 2006

9:00 am–10:00 am   CC-302
Mu Sigma Rho Executive Committee
Organizer(s): Marcia Gumpertz, North Carolina State University

9:30 am–12:30 pm   H-Chatham
Current Index to Statistics Management Committee Meeting (closed)
Chair(s): Duncan Murdoch, University of Western Ontario

10:30 am–1:00 pm   S-Willow A
New Chapter Officers meeting with Council of Chapters Vice Chairs
Chair(s): Ronald Wasserstein, Washburn University

12:00 pm–1:30 pm   H-Excelsior
JCGS Management Committee Meeting (closed)
Chair(s): Dianne Cook, Iowa State University

12:30 pm–2:00 pm   H-Blewett Suite
The American Statistician Editorial Board Meeting (closed)
Chair(s): Peter Westfall, Texas Tech University

12:30 pm–2:00 pm   H-Discovery
ASA Defense and Security Task Force Meeting (closed)
Chair(s): Alyson Wilson, Los Alamos National Laboratory

12:30 pm–2:00 pm   S-Douglas Room
Open Source Textbook Project Planning Meeting
Organizer(s): Beatrix Jones, Massey University

12:30 pm–4:30 pm   H-Stevens Boardroom & Foyer
ENAR RAB/RECOM Luncheon Meeting (by invitation only)
Organizer(s): Kathy Hoskins, ENAR

12:30 pm–2:00 pm   CC-302
Interface Foundation of North America Board Meeting (closed)
Organizer(s): Tim C. Hesterberg, Insightful Corporation

12:30 pm–2:00 pm   H-Portland
Deming Lectureship Committee Speaker Luncheon (closed)
Chair(s): Lorraine Denby, Avaya Labs Research

2:00 pm–3:30 pm   S-Everett
Council of Chapters Traveling Course
Chair(s): Delray Schultz, Millersville University

2:00 pm–3:30 pm   S-Spruce Room
ASA Committee Organization and Management Task Force (closed)
Chair(s): Susan J. Devlin, The Artemis Group LLC

2:30 pm–4:00 pm   H-Cayuse
JBES Editorial Board Meeting
Chair(s): Torben G. Andersen, Northwestern University

3:40 pm–4:00 pm   CC-3B
Presentation of 2006 Roger Herriot Award with Reception (Open)
Chair(s): Lawrence H. Cox, National Center for Health Statistics

4:00 pm–6:00 pm   S-Metropolitan Ballroom A
Council of Chapters Workshop and Reception: New and Not So New Methods of Communications for Chapters Featuring Wiki Pages (closed)
Chair(s): J. LynnPalmer, M. D. Anderson Cancer Center

4:00 pm–5:00 pm   H-Sherman
JASA Reviews Assistant Editors Meeting (closed)
Chair(s): Robert Lund, Clemson University

4:30 pm–6:00 pm   S-Cedar Room
Biometrics Editorial Board (closed)
Organizer(s): Marie Davidian, North Carolina State University

5:00 pm–6:00 pm   CC-602
Caucus for Women in Statistics Business Meeting
Organizer(s): Mary W. Gray, American University

5:00 pm–6:00 pm   CC-601
Business and Economics Statistics Section Business Meeting
Chair(s): Paul Shaman, University of Pennsylvania

5:00 pm–6:30 pm   CC-605
JSM 2008 Program Committee Orientation Meeting (closed)
Chair(s): Russell V. Lenth, University of Iowa

5:00 pm–7:00 pm   S-Willow B
North Carolina State University Reception for Alumni

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

and Friends

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

5:00 pm–6:30 pm   CC-609

Section on Survey Research Methods Business Meeting

Chair(s): Roger Tourangeau, University of Maryland

5:00 pm–7:00 pm   S-Douglas Room

Friends and Alumni of UCLA

Organizer(s): Jason Mesa, University of California, Los Angeles

5:30 pm–7:00 pm   CC-603

Section on Statistical Consulting Business Meeting

Chair(s): Philip Dixon, Iowa State University

5:30 pm–6:30 pm   CC-607

Section on Statistics and Marketing Business Meeting

Chair(s): Alan Montgomery, Carnegie Mellon University

5:30 pm–6:30 pm   S-Willow A

IMS New Member and Student Reception

Organizer(s): Elyse Gustafson, IMS

5:30 pm–7:00 pm   H-Blewett Suite

University of Washington Department of Biostatistics Alumni Meeting

Organizer(s): Xiao-Hua Andrew Zhou, University of Washington

5:30 pm–7:00 pm   CC-604

ENAR Business Meeting (open to all ENAR Members)

Organizer(s): Kathy Hoskins, ENAR

5:30 pm–7:30 pm   CC-4C-3

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

Chair(s): Christine M. Anderson-Cook, Los Alamos National Laboratory; Robert Wilkinson, Lubrizol

5:30 pm–7:30 pm   CC-610

Section on Statistics in Epidemiology Social Mixer

Chair(s): Sander Greenland, University of California, Los Angeles

5:30 pm–7:30 pm   H-Princessa II Ballroom

University of Michigan Biostatistics and Statistics Departments Joint Alumni Reception

Organizer(s): Jack Kalbfleisch, University of Michigan

5:30 pm–7:30 pm   CC-606

Biopharmaceutical Section Business Meeting

Chair(s): Stacy Lindborg, Eli Lilly and Company

5:30 pm–7:00 pm   CC-4C-1

Section on Government Statistics Business Meeting

Chair(s): Stephanie Shipp, National Institute of Standards and Technology

5:30 pm–7:00 pm   S-Cirrus Ballroom

Section on Bayesian Statistical Science Open Meeting

Chair(s): Dalene Stangl, Duke University

6:00 pm–6:30 pm   CC-Ballroom 6ABC

2006 ASA New Fellows Group Picture (closed)

Chair(s): M. ElizabethHalloran, Fred Hutchinson Cancer Research Center

6:00 pm–7:00 pm   CC-607

Joint Mixer for Section on Statistics and Marketing and the Business & Economics Section

Chair(s): Alan Montgomery, Carnegie Mellon University; Paul Shaman, University of Pennsylvania

6:00 pm–8:00 pm   H-Leonesa Ballroom I

University of Wisconsin-Madison Department of Statistics Reception

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

6:00 pm–7:30 pm   CC-302

Insightful Reception

Organizer(s): Gina Buzzelle, Insightful Corporation

6:30 pm–8:00 pm   S-Aspen Room

Bristol Myers Squibb Co. Presentation and Reception (closed)

Organizer(s): Denise Houghton, Bristol Myers Squibb

6:30 pm–7:30 pm   CC-4C-2

2006 ASA New Fellows Reception (by invitation only)

Chair(s): M. ElizabethHalloran, Fred Hutchinson Cancer Research Center

6:30 pm–8:00 pm   S-Ballard

CRC Press/Taylor & Francis Reception

Organizer(s): David Grubbs, CRC Press

8:00 pm–10:30 pm   CC-4C-3

JSM Informal Dance Party (all welcome, included in

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

registration fee)

Continuing Education (Fee Events)

CE_23C   CC-306
8:00 am–12:00 pm
Adaptive Tests of Significance and Confidence Intervals
The ASA

Instructor(s): Thomas W. O'Gorman, Northern Illinois University

CE_24C   CC-310
8:30 am–5:00 pm
Bayesian Analysis of Case-Control Data
The ASA, Section on Bayesian Statistical Science

Instructor(s): Malay Ghosh, University of Florida; Bhramar Mukherjee, University of Florida; Samiran Sinha, Texas A&M University

CE_25C   CC-309
8:30 am–5:00 pm
Analysis of Environmental Data with Nondetects
The ASA, Section on Statistics and the Environment

Instructor(s): Dennis R. Helsel, U.S. Geological Survey; Lopaka Lee, U.S. Geological Survey

CE_26C   CC-307 & 308
8:30 am–5:00 pm
Models for Discrete Repeated Measures
The ASA, Section on Statistics in Epidemiology

Instructor(s): Geert Verbeke, K. U. Leuven; Geert Molenberghs, Limburgs Universitair Centrum

CE_27C   CC-305
8:30 am–5:00 pm
Effective Scientific Writing
The ASA

Instructor(s): Judith A. Swan, Princeton University

CE_28C   CC-304
8:30 am–5:00 pm
Bioequivalence and Statistics in Clinical Pharmacology
The ASA

Instructor(s): Scott Patterson, GlaxoSmithKline; Byron Jones, Pfizer Inc.

CE_29C   CC-303
8:30 am–5:00 pm

Methods and Computational Tools for the Screening and Classification of Microarray Gene Expression Data
The ASA, Biopharmaceutical Section

Instructor(s): Geoff McLachlan, University of Queensland; Kim-Anh Do, M. D. Anderson Cancer Center

CE_30C   CC-306
1:00 pm–5:00 pm
Meta-analysis: Statistical Methods for Combining the Results of Independent Studies
The ASA

Instructor(s): Ingram Olkin, Stanford University

Roundtables with Coffee
7:00 am–8:15 am

212   CC-4C-1
Section on Bayesian Statistical Science Roundtable with Coffee (fee event)
Section on Bayesian Statistical Science

Organizer(s): Merlise Clyde, Duke University

TL01   Can and Should We Teach Bayesian Inference in Stat 101?—❖ Jerome Reiter, Duke University

213   CC-4C-1
Section on Statistical Consulting Roundtable with Coffee (fee event)
Section on Statistical Consulting

Organizer(s): Phillip Chapman, Colorado State University

TL02   Bioinformatics Consulting: Keeping up to Date—❖ Ann Hess, Colorado State University

214   CC-4C-1
Section on Statistical Education Roundtable with Coffee (fee event)
Section on Statistical Education

Organizer(s): Patti Collings, Brigham Young University

TL03   Motivating the Math Major To Consider a Career in Statistics—❖ Carolyn Cuff, Westminster College

215   CC-4C-1
Section on Statistics and the Environment Roundtable with Coffee (fee event)

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Section on Statistics and the Environment

Organizer(s): Peter Guttorp, University of Washington

TL04   Bayesian Applications in Environmental Science—❖ Eric P. Smith, Virginia Polytechnic Institute and State University; Keying Ye, The University of Texas at San Antonio

216   CC-4C-1
Section on Physical and Engineering Sciences Roundtable with Coffee (fee event)

Section on Physical and Engineering Sciences

Organizer(s): Winson Taam, The Boeing Company

TL05   Weibull Analysis—❖ Fritz Scholz, The Boeing Company

217   CC-4C-1
Section on Risk Analysis Roundtable with Coffee (fee event)

Section on Risk Analysis

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

TL06   Estimation of Health Risk from Fish Consumption Associated with Fishing in an Urban Industrial Setting—❖ Rose Ray, Exponent, Inc.

218   CC-4C-1
Section on Teaching Statistics in the Health Sciences Roundtable with Coffee (fee event)

Section on Teaching Statistics in the Health Sciences

Organizer(s): Patrick Tarwater, The University of Texas Health Science Center at Houston

TL07   Productivity versus Professionalism in Biostatistics—❖ Lemuel Moye, The University of Texas Health Science Center at Houston

Special Presentation 8:30 am–10:20 am

219   CC-4C-4
Introductory Overview Lectures: Computer Experiments—Other

The ASA, ENAR, IMS, SSC, WNAR, Section on Physical and Engineering Sciences

Organizer(s): Thomas M. Loughin, Kansas State University

Chair(s): Andrew J. Booker, The Boeing Company

8:35 am   **What Are Computer Experiments, and How Do We Design Them?**—❖ William Notz, The Ohio State University

9:25 am   **The Modeling and Analysis of Data from Computer Experiments**—❖ Thomas Santner, The Ohio State University

10:15 am   **Floor Discussion**

Invited Sessions 8:30 am–10:20 am

220   CC-619
JBES Invited Session—Invited

JBES-Journal of Business and Economic Statistics

Organizer(s): Torben G. Andersen, Northwestern University

Chair(s): Torben G. Andersen, Northwestern University

8:35 am   **On the Fit and Forecasting Performance of New Keynesian Models**—❖ Frank Schorfheide, University of Pennsylvania; Marco Del Negro, Federal Reserve Bank of Atlanta; Frank Smets, European Central Bank; Raf Wouters, National Bank of Belgium

9:20 am   Disc: Larry Christiano, Northwestern University

9:35 am   Disc: A. RonaldGallant, Duke University

9:50 am   Disc: Christopher Sims, Princeton University

10:05 am   **Floor Discussion**

221   CC-2B
● ✪ Six Sigma: What's Missing—Invited

Section on Quality and Productivity, Section on Statistical Education

Organizer(s): Ramon Leon, University of Tennessee

Chair(s): Roger W. Hoerl, GE Global Research

8:35 am   **Improving the Six Sigma Toolkit**—❖ Gerald J. Hahn, GE Global Research/RPI; ❖ Necip Doganaksoy, GE Global Research

9:05 am   **Six Sigma: What Is Missing?**—❖ William C. Parr, University of Tennessee

9:35 am   **Making Six Sigma Work: Statistics, Semi-Statistics, and Soft Stuff**—❖ Blanton Godfrey, North Carolina State University

10:05 am   **Floor Discussion**

222   CC-3A
● ✪ Bayesian Methods in Computational Biology—Invited

Section on Bayesian Statistical Science, Biometrics Section, WNAR, ENAR

Organizer(s): Joseph G. Ibrahim, The University of North Carolina at Chapel Hill

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

Chair(s): Joseph G. Ibrahim, The University of North Carolina at Chapel Hill

8:35 am	**Evolutionary Sparse Factor Modeling for Subpathway Identification and Characterization—** ❖ Mike West, Duke University; Carlos Carvalho, Duke University; Quanli Wang, Duke University; Joseph Lucas, Duke University; Joseph Nevins, Duke University; Jeffrey Chang, Duke University
9:00 am	**Bayesian Inference for Biochemical Network Dynamics—** ❖ Darren J. Wilkinson, University of Newcastle upon Tyne
9:25 am	**Bayesian One-Way and Two-Way Clustering Methods for Genomic Data—** ❖ Jun Liu, Harvard University
9:50 am	**Statistical Methods for Motif Detection Incorporating Structural Features of DNA—** ❖ Mayetri Gupta, The University of North Carolina at Chapel Hill
10:15 am	**Floor Discussion**

223   CC-400
● Alternative Approaches for Sample Size Planning—Invited

Section on Statistical Consulting, Section on Statistical Education

Organizer(s): Peter Bacchetti, University of California, San Francisco

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

8:35 am	**Estimating the Minimally Significant Difference for a Clinical Study—** ❖ Robert A. Parker, Harvard School of Public Health
9:00 am	**A Completely Different Approach to Sample Size Planning—** ❖ Peter Bacchetti, University of California, San Francisco; Charles E. McCulloch, University of California, San Francisco; Mark R. Segal, University of California, San Francisco
9:25 am	**Sample Size and the Value of Information—** ❖ Kimberly M. Thompson, Harvard School of Public Health
9:50 am	Disc: Stephen Senn, University of Glasgow
10:10 am	**Floor Discussion**

224   CC-608
● ✪ Statistical Methods for Integrative Genomics—Invited

Biometrics Section, WNAR, ENAR

Organizer(s): Giovanni Parmigiani, The Johns Hopkins University

Chair(s): Kim-Anh Do, M. D. Anderson Cancer Center

8:35 am	**Integrative Correlation: a Gene-Level Measure of Cross-Study Reproducibility—** ❖ Leslie Cope, The Johns Hopkins University; Liz Garrett-Mayer, The Johns Hopkins University; Edward Gabrielson, The Johns Hopkins University School of Medicine; Giovanni Parmigiani, The Johns Hopkins University
9:00 am	**A Bayesian Model for Cross-Study Differential Expression—** ❖ Andrew Nobel, The University of North Carolina at Chapel Hill; Haakon Tjelmeland, Norwegian University of Science and Technology; Rob Scharpf, The Johns Hopkins University; Giovanni Parmigiani, The Johns Hopkins University
9:25 am	**Statistical Methods for Analysis of Copy Number and Expression Transcript Data—** ❖ Debashis Ghosh, University of Michigan
9:50 am	**Integrative Homologous Regulation Analysis between Mouse and Human—** ❖ Jae K. Lee, University of Virginia
10:15 am	**Floor Discussion**

225   CC-603
Network Visualization—Invited

Section on Statistical Graphics, Section on Statisticians in Defense and National Security

Organizer(s): Deborah F. Swayne, AT&T Labs-Research

Chair(s): Leland Wilkinson, SPSS Inc.

8:35 am	**Scaling up Graph Visualization—** ❖ Stephen North, AT&T Labs-Research
9:05 am	**Scalable Drawing of Trees and Graphs—** ❖ Tamara Munzner, The University of British Columbia
9:35 am	**Visualizing Evolving Graphs by Simultaneous Embeddings—** ❖ Stephen G. Kobourov, University of Arizona
10:05 am	**Floor Discussion**

226   CC-617
● Teaching Biostatistics to Health Care Professionals without Equations—Invited

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

Organizer(s): Janet A. Tooze, Wake Forest University School of Medicine

Chair(s): Janet A. Tooze, Wake Forest University School of Medicine

8:35 am	**Teaching Research Design to Health Sciences**

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	Professionals—❖ Stephen W. Looney, LSU Health Sciences Center
9:00 am	**Teaching Statistical Concepts through Visualization**—❖ Edward H. Ip, Wake Forest University School of Medicine; Gary Wolgast, Wake Forest University School of Medicine
9:25 am	**Effective Teaching of Applied Biostatistics for Clinicians Enrolled in a Research Training Program**—❖ Jodi Lapidus, Oregon Health & Science University
9:50 am	Disc: Ralph O'Brien, The Cleveland Clinic
10:10 am	**Floor Discussion**

227   CC-607
● Statistical Issues in Diagnostic Medicine—Invited

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

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

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

8:35 am	**Evaluating the Predictiveness of a Continuous Marker**—❖ Margaret S. Pepe, Fred Hutchinson Cancer Research Center/University of Washington; Ying Huang, University of Washington; Ziding Feng, Fred Hutchinson Cancer Research Center
9:00 am	**Double-Semiparametric ROC Regression Analysis**—❖ Xiao-Hua Andrew Zhou, University of Washington; Huazhen Lin, University of Washington
9:25 am	**Evaluation of Diagnostic Tests in Studies with Verification Bias**—❖ Marina Kondratovich, U.S. Food and Drug Administration
9:50 am	Disc: Colin B. Begg, Memorial Sloan-Kettering Cancer Center
10:10 am	**Floor Discussion**

228   CC-618
● ✪ Statistical Responses to Legislation: the Privacy Rule—Invited

Committee on Privacy and Confidentiality, Section on Health Policy Statistics

Organizer(s): Alvan O. Zarate, National Center for Health Statistics

Chair(s): Laura Zayatz, U.S. Census Bureau

8:35 am	**The Statistician's Role in Developing the HIPAA De-identification Standard**—❖ Alvan O. Zarate, National Center for Health Statistics

9:00 am	**The Federal Statisticians' Response to the HIPAA Privacy Rule**—❖ Jacob Bournazian, Energy Information Administration
9:25 am	**Statistical Deidentification and the HIPAA Rule**—❖ Patrick Baier, NORC
9:50 am	Disc: J. NeilRussell, National Center for Education Statistics
10:10 am	**Floor Discussion**

229   CC-602
Recent Developments in Nonparametric Survival Analysis Methods—Invited

ENAR, Biometrics Section, WNAR, Section on Nonparametric Statistics

Organizer(s): Haibo Zhou, The University of North Carolina at Chapel Hill

Chair(s): Jianqing Fan, Princeton University

8:35 am	**Partially Linear Hazard Regression for Multivariate Survival Data**—❖ Jianwen Cai, The University of North Carolina at Chapel Hill; Jianqing Fan, Princeton University; Jiancheng Jiang, Princeton University; Haibo Zhou, The University of North Carolina at Chapel Hill
8:55 am	**A General Imputation Methodology for Nonparametric Regression with Censored Data**—❖ Daniel Rubin, University of California, Berkeley; Mark van der Laan, University of California, Berkeley
9:15 am	**Kernel-Smoothed Profile Likelihood Function in Accelerated Failure Time Model**—❖ Donglin Zeng, The University of North Carolina at Chapel Hill; Danyu Lin, The University of North Carolina at Chapel Hill
9:35 am	**Nonparametric Analysis of Multivariate Competing Risks Data**—❖ Jason P. Fine, University of Wisconsin-Madison
9:55 am	**An Additive Modulated Renewal Process**—❖ Dorota Dabrowska, University of California, Los Angeles
10:15 am	**Floor Discussion**

230   CC-2A
● Client-Oriented Perspectives on Small-Area Estimation—Invited

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

Organizer(s): Avinash C. Singh, Statistics Canada

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Chair(s): Graham Kalton, Westat

8:35 am   **Characterization of Cost Structures, Perceived Value, and Optimization Issues in Small-Domain Estimation**—❖ John L. Eltinge, Bureau of Labor Statistics

9:00 am   **A Small-Area Estimation Approach in Reducing Survey Costs**—❖ Partha Lahiri, University of Maryland; Paul D. Williams, National Center for Health Statistics

9:25 am   **Some Problems and Possible Solutions in Developing a Small-Area Estimation Product for Clients**—❖ Avinash C. Singh, Statistics Canada

9:50 am   Disc: Jon N. K. Rao, Carleton University

10:10 am   **Floor Discussion**

Topic-Contributed Sessions
8:30 am–10:20 am

231   CC-609
● Missing Data in Clinical Trials: Can We Do Better Than LOCF?—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Bret Musser, Merck Research Laboratories

Chair(s): Bret Musser, Merck Research Laboratories

8:35 am   **Is It Better To Use Random Effects Models in Analysis of Repeated Binary Responses with Missing Data?**—❖ Guanghan Liu, Merck Research Laboratories

8:55 am   **An Analytic Road Map for Incomplete Longitudinal Clinical Trial Data**—❖ Craig Mallinckrodt, Eli Lilly and Company; Shuyi Shen, Eli Lilly and Company; Caroline Beucnkens, Limburgs Universitair Centrum; Geert Molenberghs, Limburgs Universitair Centrum

9:15 am   **Mixed-Effects Latent Curve Modeling of Incomplete Longitudinal Cognitive Data**—❖ John J. McArdle, University of Southern California

9:35 am   **Scope of the Problem, Options Available, and Empirical Performance of Techniques for Handling Missing Data in Randomized Clinical Trials: Focus on Weight Loss Trials**—❖ David B. Allison, The University of Alabama at Birmingham

9:55 am   Disc: Fanhui Kong, U.S. Food and Drug Administration

10:15 am   **Floor Discussion**

232   CC-206
Responding to Emergency Needs for Data: Developing Population Estimates in the Wake of Hurricane Katrina—Topic-Contributed

Section on Government Statistics

Organizer(s): Wendy Alvey, U.S. Census Bureau; Lisa Blumerman, U.S. Census Bureau

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

8:35 am   **The Suitability of Population Estimates To Address Data Needs Related to Hurricane Katrina**—Signe Wetrogan, U.S. Census Bureau; ❖ Sally Obenski, U.S. Census Bureau

8:55 am   **Responding to Emergency Needs for Data: Data Acquisition and Intra- and Inter-Agency Collaboration**—❖ Lisa Blumerman, U.S. Census Bureau

9:15 am   **Hurricane Katrina: Methodological Response to Informing Current Population Survey Controls**—Kevin M. Shaw, U.S. Census Bureau; ❖ Marc Roemer, U.S. Census Bureau; Sally Obenski, U.S. Census Bureau

9:35 am   **Responding to Emergency Needs for Data: Developing Population Estimates in the Wake of Hurricane Katrina**—❖ Christa Jones, U.S. Census Bureau; Ronald Prevost, U.S. Census Bureau

9:55 am   Disc: Thomas Nardone, Bureau of Labor Statistics

10:15 am   **Floor Discussion**

233   CC-615
Applications in Seasonal Adjustment—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Benoit Quenneville, Statistics Canada

Chair(s): Peter Kenny, PBK Research

8:35 am   **Balancing SA Series as a Complement to the Direct and Indirect SA of Series**—❖ Benoit Quenneville, Statistics Canada

8:55 am   **Computing Tasks Associated with Seasonal Adjustment at Statistics Canada: Methods and Software**—❖ Susie Fortier, Statistics Canada; Benoit Quenneville, Statistics Canada

9:35 am   **Exploring Model-Based Seasonal Adjustment for Industry Employment Statistics**—❖ Christopher Manning, Bureau of Labor Statistics; Jeffrey A. Smith, Bureau of Labor Statistics

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9:55 am	**Variance Estimation for Noise Components in Time Series from a Survey**—❖ Daniell Toth, Bureau of Labor Statistics; Stuart Scott, Bureau of Labor Statistics
9:55 am	Disc: Estela BeeDagum, University of Bologna
10:15 am	**Floor Discussion**

234   CC-210

✪ New Methods for Testing Sensitive Questions Using the National Health Interview Survey—Topic-Contributed

Section on Survey Research Methods

Organizer(s): Peter Meyer, National Center for Health Statistics

Chair(s): Julie TrÈpanier, Statistics Canada

8:35 am	**Using Screened-Out Households To Test Sensitive Questions**—❖ Peter Meyer, National Center for Health Statistics
8:55 am	**Sampling and Oversampling in the National Health Interview Survey**—❖ Chris Moriarity, National Center for Health Statistics
9:15 am	**Unfolding the Answers? Income Brackets and Income Nonresponse in the National Health Interview Survey (NHIS)**—❖ John Pleis, National Center for Health Statistics
9:35 am	**Questions People Don't Like To Answer: Wealth and Social Security Numbers**—❖ James Dahlhamer, National Center for Health Statistics; Peter Meyer, National Center for Health Statistics; John Pleis, National Center for Health Statistics
9:55 am	Disc: James Chromy, RTI International
10:15 am	**Floor Discussion**

235   CC-211

● ✪ Frontiers in Demographic Coverage Measurement—Topic-Contributed

Social Statistics Section

Organizer(s): Dean H. Judson, U.S. Census Bureau

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

8:35 am	**Demographic Coverage Measurement: Can Information Integration Theory Help?**—❖ Dean H. Judson, U.S. Census Bureau
8:55 am	**Demographic Analysis in the UK Census: a Look Back to 2001 and Looking Forward to 2011**—Owen Abbott, Office for National Statistics; ❖ Garnett Compton, Office for National Statistics

9:15 am	**Coverage Assessment and Adjustment in the 2011 UK Census**—❖ Owen Abbott, Office for National Statistics
9:35 am	**Using the Audit Trail Data To Evaluate the Quality of Collection of the Canadian National Longitudinal Survey of Children and Youth**—❖ Bruno Lapierre, Statistics Canada; Scott Meyer, Statistics Canada
9:55 am	**Floor Discussion**

236   CC-214

Climate, Weather, and Spatial-Temporal Models—Topic-Contributed

Section on Statistics and the Environment, Section on Statisticians in Defense and National Security, Section on Bayesian Statistical Science, WNAR

Organizer(s): Stephan Sain, University of Colorado at Denver and Health Sciences Center

Chair(s): Douglas W. Nychka, National Center for Atmospheric Research

8:35 am	**Models for Multivariate Spatial Lattice Data and Assessing Climate Change**—❖ Stephan Sain, University of Colorado at Denver and Health Sciences Center
8:55 am	**Spatial Patterns of Global Climate Change Fields**—❖ Reinhard Furrer, Colorado School of Mines; Reto Knutti, National Center for Atmospheric Research
9:15 am	**Modeling Precipitation Network Data when Station Reporting Times Are Misaligned**—❖ Jarrett Barber, Montana State University; Alan E. Gelfand, Duke University; Douglas W. Nychka, National Center for Atmospheric Research
9:35 am	**Spatial and Temporal Models for Evaluating IPCC Climate Model Outputs**—❖ Mikyoung Jun, Texas A&M University; Douglas W. Nychka, National Center for Atmospheric Research; Reto Knutti, National Center for Atmospheric Research
9:55 am	**A Hierarchical Bayesian Spatio-Temporal Model for Tropospheric Carbon Monoxide**—❖ Anders Malmberg, National Center for Atmospheric Research
10:15 am	**Floor Discussion**

237   CC-3B

Spatial Modeling—Topic-Contributed

Section on Bayesian Statistical Science, Section on Nonparametric Statistics

Organizer(s): Herbert Lee, University of California, Santa Cruz

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Chair(s): Christopher Hans, The Ohio State University

8:35 am	**Gaussian Processes and Limiting Linear Models—** Robert Gramacy, University of Cambridge; ❖ Herbert Lee, University of California, Santa Cruz
8:55 am	**Bayesian Model for Dependent Nonparametric Regressions—**❖ Abel Rodriguez, Duke University; Alan E. Gelfand, Duke University; David B. Dunson, National Institute of Environmental Health Sciences
9:15 am	**Sampling Importance Resampling for Computer Model Inverse Problems—**❖ Matt Taddy, University of California, Santa Cruz; Bruno Sanso, University of California, Santa Cruz; Herbert Lee, University of California, Santa Cruz
9:35 am	**Bayesian Computational Methods for Models in Geosciences—**❖ Alejandro Villagran, University of New Mexico; Gabriel Huerta, University of New Mexico
9:55 am	**The Effect of Collinearity on Parameter Estimation in Bayesian Spatially Varying Coefficient Models—**❖ David Wheeler, The Ohio State University
10:15 am	**Floor Discussion**

238   CC-401
● Fostering Active Learning in Statistics—Topic-Contributed

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

Organizer(s): Carl Lee, Central Michigan University

Chair(s): Carl Lee, Central Michigan University

8:35 am	**How Do You Come up with These Things?—**❖ AndrÈ Michelle Lubecke, Lander University
8:55 am	**Using Simulation To Introduce Inference—**❖ Sharon Lane-Getaz, University of Minnesota/Cal Poly
9:15 am	**Active Learning in an Online Introductory Statistics Course—**❖ Michelle Everson, University of Minnesota
9:35 am	**Designing Classroom Activities for Student Learning—**❖ Allan Rossman, California Polytechnic State University, San Luis Obispo; Beth Chance, California Polytechnic State University, San Luis Obispo
9:55 am	**Evaluation of Students' Learning in Real-Time Online Activities Environment—**❖ Felix Famoye, Central Michigan University; Carl Lee, Central

Michigan University

10:15 am	**Floor Discussion**

239   CC-204
Health Policy Student Paper Awards—Topic-Contributed

Section on Health Policy Statistics

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

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

8:35 am	**Understanding Self-Reported Disability among the Elderly: a Novel Use of Anchoring Vignettes—**❖ Kate Stewart, Harvard University; Mary Beth Landrum, Harvard Medical School; David M. Cutler, Harvard University
8:55 am	**Hierarchical and Joint Site-Edge Methods for Medicare Hospice Service Region Boundary Analysis—**❖ Haijun Ma, University of Minnesota; Bradley P. Carlin, University of Minnesota; Sudipto Banerjee, University of Minnesota
9:15 am	**Extending the Capture-Recapture Methodology To Estimate Disease Subpopulation Sizes in the Presence of Cross-Classification—**❖ Ulysses Diva, University of Connecticut; Dipak Dey, University of Connecticut; Timothy Morse, University of Connecticut Health Center
9:35 am	**Methods for Profiling the Value of Hospital Care Following Acute Myocardial Infarction—**❖ Justin Timbie, Harvard University
9:55 am	**Nonparametric Statistical Methods for a Cost-Effectiveness Analysis—**❖ Phillip Dinh, University of Washington; Xiao-Hua Andrew Zhou, University of Washington
10:15 pm	**Floor Discussion**

Regular Contributed Sessions
8:30 am–10:20 am

240   CC-205
Methods for High Dimensional Data—Contributed

IMS

Chair(s): Elizabeth Koehler, University of Washington

8:35 am	**Constrained Dimension Reduction Based on Canonical Correlation—**❖ Jianhui Zhou, University of Virginia

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8:50 am	**Sliced Inverse Regression under Data Contamination**—❖ Ulrike Genschel, Iowa State University
9:05 am	**Significance and Recovery of Block Structures in Binary and Real Matrices with Noise**—❖ Xing Sun, The University of North Carolina at Chapel Hill; Andrew Nobel, The University of North Carolina at Chapel Hill
9:20 am	**Some Extensions of a Two-Sample Test under the Effect of High Dimension**—❖ Yingli Qin, Iowa State University; Song X. Chen, Iowa State University; Liang Peng, Iowa State University
9:35 am	**Detecting Sparse Signals with a Large Scale of SPRTs**—❖ Yanhong Wu, University of the Pacific
9:50 am	**On the Accuracy of Data Squashing**—❖ Atsuyuki Kogure, Keio University; Masahiko Sagae, Gifu University
10:05 am	**New Tools for Sparse Inference: the Regime of Moderate Significances**—❖ Jiashun Jin, Purdue University

241   CC-601
Construction of Prior Distributions—Contributed
Section on Bayesian Statistical Science

Chair(s): Raphael Gottardo, The University of British Columbia

8:35 am	**An Asymptotic Viewpoint on High-Dimensional Bayesian Testing**—❖ Dan Spitzner, Virginia Tech
8:50 am	**Novel Bayesian Variable-Selection Priors for "Large p Small n" Data Analysis**—❖ Joseph Lucas, Duke University
9:05 am	**New Priors for Complex System Reliabilities and Trends**—❖ Earl Lawrence, Los Alamos National Laboratory; Scott Vander Wiel, Los Alamos National Laboratory
9:20 am	**Reference Priors in Linear Models with General Covariance Structures**—❖ Xin Zhao, Merck & Co., Inc.; Martin T. Wells, Cornell University
9:35 am	**Bayesian Interval Estimation of Attributable Risk Using Probability Matching Prior**—❖ Bin Huang, Cincinnati Children's Hospital Medical Center; Siva Sivaganisan, University of Cincinnati
9:50 am	**Bayesian Inference with Matching Priors**—❖ Ana-Maria Staicu, University of Toronto
10:05 am	**A General Approach for Constructing Normalizing Constants for Parameter Selection Priors**—❖ Christopher Carter, University of New South Wales

242   CC-213
Classification and Other Correlated Data Problems—Contributed
Section on Physical and Engineering Sciences

Chair(s): EunJoo Lee, Advanced Micro Devices, Inc.

8:35 am	**InfoEvolve(TM): a Data Mining Tool Combining Information Theory and Genetic Algorithms**—❖ Aaron J. Owens, DuPont; Karen M. Bloch, DuPont
8:50 am	**Analysis of Handwritten ZIP Code Digits Using OBSTree**—❖ Atina Dunlap Brooks, North Carolina State University; Jacqueline Hughes-Oliver, North Carolina State University
9:05 am	**A Nonparametric Approach Based on a like Markov Property for Classification**—❖ Eun Sug Park, Texas Transportation Institute; Clifford Spiegelman, Texas A&M University
9:20 am	**Sensitivity Analysis with Correlated Inputs: Application to Kinetic Models**—❖ Sebastien Da Veiga, Institut FranÁais du PÈtrole; Francois Wahl, Institut FranÁais du PÈtrole; Fabrice Gamboa, UniversitÈ Paul Sabatier
9:35 am	**A Structural Equation Method for Modeling Data Center Thermal Distribution**—❖ Zhiguang Qian, ; Yasuo Amemiya, IBM T. J. Watson Research Center
9:50 am	**Improved Tolerance Factors for Multivariate Normal**—❖ Sumona Mondal, University of Louisiana at Lafayette; Kalimuthu Krishnamoorthy, University of Louisiana at Lafayette
10:05 am	**K-Means Clustering: A Novel Probabilistic Formulation, with some Applications**—❖ Samiran Ghosh, University of Connecticut; Dipak Dey, University of Connecticut

243   CC-605
Missing or Censored Data—Contributed
Section on Statistical Computing, Biometrics Section, ENAR

Chair(s): George Terrell, Virginia Polytechnic Institute and State University

8:35 am	**Counting the Homeless in Los Angeles County**—❖ Brian Kriegler, University of California, Los Angeles; Richard Berk, University of California, Los Angeles; Don Ylvisaker, University of California, Los Angeles
8:50 am	**An Investigation of Missing Data Methods for

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Decision Trees—❖ Yufeng Ding, New York University; Jeffrey Simonoff, New York University

9:05 am **Nonlinear Neural Network Imputation**—❖ Safaa Amer, NORC

9:20 am **Using Objective Measures in Combination with Self-Report To Estimate Adherence**—❖ Richard Thompson, Johns Hopkins Bloomberg School of Public Health; Michael Griswold, Johns Hopkins Bloomberg School of Public Health; Arlene Butz, The Johns Hopkins University; Michele Donithan, Johns Hopkins Bloomberg School of Public Health

9:35 am **Test of Independence with Incomplete Contingency Table**—❖ Shin-Soo Kang, Iowa State University; Kenneth Koehler, Iowa State University; Michael D. Larsen, Iowa State University

9:50 am **A Comparison of Parametric and Semiparametric Methods for Predicting Limited Dependent Variables**—❖ Maya Sternberg, Centers for Disease Control and Prevention; Alula Hadgu, Centers for Disease Control and Prevention; Suephy Chen, Emory University School of Medicine

10:05 am **Estimation of Correlation Coefficient in Bivariate Normal Population Based on Concomitants of Order Statistics**—❖ Qinying He, The Ohio State University; H. N. Nagaraja, The Ohio State University

244   CC-212
● ✪ Risk Assessment: Disease, Health, and Harm—Contributed
Section on Risk Analysis, Biometrics Section, ENAR
Chair(s): Ciprian M. Crainiceanu, The Johns Hopkins University

8:35 am **Characterization of Occupant Anthropometry and Clearance Measures in Passenger Cars**—❖ Duane Steffey, Exponent, Inc.; Robert Bove, Jr., Exponent, Inc.; Jacob Fisher, Exponent, Inc.; Lauren Ciccarelli, Exponent, Inc.; Robert Cargill, Exponent, Inc.; Tara Moore, Exponent, Inc.

8:50 am **Smallpox and Pandemic Influenza: Modeling Potential Challenges for the U.S. Blood Supply**—❖ Steven Anderson, U.S. Food and Drug Administration

9:05 am **A Comparison of Bayesian Networks and MCMC Techniques for Quantitative Risk Assessment**—❖ Paola Berchialla, University of Torino; Silvia

Snidero, University of Torino; Alexandru Stancu, University of Torino; Cecilia Scarinzi, University of Torino; Roberto Corradetti, University of Torino; Dario Gregori, University of Torino

9:20 am **Risk Assessment of Listeria Monocytogenes on Frankfurters with Organic Acid Salts Surface Treatments**—❖ Zheng Lu, Iowa State University; Chunwang Gao, Iowa State University

9:35 am **Generalized Residual Sojourns under Truncation and Censoring**—❖ John Hsieh, University of Nevada, Reno

9:50 am **General Indexes for Spatial-Temporal Population Risk Assessment**—❖ Chu-Chih Chen, National Health Research Institutes

10:05 am **Public Health Interventions and Transition Probabilities**—❖ Paula Diehr, University of Washington

245   CC-616
● Misspecifications, Data Quality, and Improvements—Contributed
Business and Economics Statistics Section
Chair(s): Michael Smith, University of Sydney

8:35 am **Sons, Daughters, and Parents' Labor Supply: New Evidence from Matched CPS Data**—❖ James Vere, The University of Hong Kong

8:50 am **Statistical Modeling: Science versus Business and Domain Expertise**—❖ Igor Mandel, Media Planning Group; David Hauser, Media Planning Group

9:05 am **Estimating Signatures on a Petition with Cis**—❖ Mary M. Whiteside, The University of Texas at Arlington; Mark E. Eakin, The University of Texas

9:20 am **Estimation of Industry Distribution of Statistical Discreancy in National Income and Product Accounts**—❖ Baoline Chen, Bureau of Economic Analysis

9:35 am **Quantifying the Quality of Macroeconomic Variables**—❖ Alex Teterukovsky, Statistics Sweden; Lars-Erik ÷ller, Statistics Sweden/ Stockholm University

9:50 am **Incorporating EITC Participation into the SAIPE Program's County Poverty Model**—❖ Wesley Basel, U.S. Census Bureau; Brian J. O'Hara, U.S. Census Bureau

10:05 am **Misspecification of Cointegrating Ranks in Seasonal Models**—❖ Byeongchan Seong,

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

Pohang University of Science and Technology; Sinsup Cho, Seoul National University; Sung K. Ahn, Washington State University; S. Y. Hwang, Sookmyung Women's University

246   CC-612
● **Nonclinical, Nonbiological Drug Development—Contributed**
Biopharmaceutical Section
Chair(s): Yanping Wang, Eli Lilly and Company

8:35 am   **Statistical Issues of Two-Stage Delivery Dose Uniformity Test of Orally Inhaled and Nasal Drug Products—**❖ Meiyu Shen, U.S. Food and Drug Administration; Yi Tsong, U.S. Food and Drug Administration

8:50 am   **Practical Considerations on Lot Acceptance Sampling Procedures—**❖ Boguang Zhen, U.S. Food and Drug Administration

9:05 am   **Assessing the Reproducibility of an Analytical Method—**❖ Jason Liao, Merck Research Laboratories

9:20 am   **Imputing Nonignorable Missing Data on Clinical Laboratory Assessments—**❖ Kapildeb Sen, Bristol-Myers Squibb Company; Chen-Sheng Lin, Bristol-Myers Squibb Company; Kannan Natarajan, Novartis Pharmaceuticals Corporation; Jun Xing, Bristol-Myers Squibb Company

9:35 am   **Web-Based Interactive Bayesian Multiple-Objective Optimal Designs for Dose Response Studies with Constraints—**❖ Xiang-feng Wu, Stony Brook University; Wei Zhu, Stony Brook University; Holger Dette, Ruhr-Universit‰t Bochum; Weng Kee Wong, University of California, Los Angeles

9:50 am   **Teaching Statistics to Clinical Research Staff in a Pharmaceutical Company—**❖ Sunil Dhar, New Jersey Institute of Technology; Farid Kianifard, Novartis Pharmaceuticals Corporation

10:05 am   **Floor Discussion**

247   CC-613
● **Methods for Agreement and Paired Data—Contributed**
Biometrics Section, ENAR
Chair(s): Michael Haber, Emory University

8:35 am   **Concordance Correlation Coefficient for Ordinal Data—**❖ Jingyun Yang, Penn State

8:50 am   **Paradoxes Revisited: Comparison of B-Statistic with Kappa—**❖ Shankar Viswanathan, The University of North Carolina at Chapel Hill; Shrikant I. Bangdiwala, The University of North Carolina at Chapel Hill

9:05 am   **Interobserver Variability and Intraobserver Variability—**❖ Jing Han, St. Francis Hospital

9:20 am   **Assessing Rater Exchangeability and Identifying an Atypical Rater Using a Log-linear Modeling Approach—**❖ Kari Kastango, University of Pittsburgh; Roslyn A. Stone, Veteran's Affairs Pittsburgh Healthcare System

9:35 am   **The Test-Based Exact Confidence Intervals of the Difference between Two Proportions for Small-Sample Paired Binary Data—**❖ Hong-Long Wang, National Taipei University; Shiu-Ying Lin, National Taipei University; Xiao-Hua Andrew Zhou, University of Washington

9:50 am   **Problems Related to Effect Size Measurement and Analysis—**❖ Sibabrata Banerjee, New Jersey Institute of Technology

10:05 am   **Confidence Interval of Effect Size in Paired and Parallel-Group Study—**❖ Jianrong Wu, St. Jude Children's Research Hospital; Guoyong Jiang, Cephalon, Inc.

248   CC-614
● **Inference for Categorical Data—Contributed**
Biometrics Section
Chair(s): Kenneth Koehler, Iowa State University

8:35 am   **Exact Inference for Contingency Tables with Correlated Data—**❖ Chris Corcoran, Utah State University

8:50 am   **Exact Unconditional Inference for Multinomial Likelihoods with an Example Using 2x3 Contingency Tables—**❖ Gerald Crans, Eli Lilly and Company; Jonathan J. Shuster, University of Florida

9:05 am   **Measuring Association in Contingency Tables—**❖ Shailendra Banerjee, Centers for Disease Control and Prevention

9:20 am   **Data Information with the Cochran-Mantel-Haenszel Test—**❖ Philip E. Cheng, Academia Sinica

9:35 am   **Modified Maximum Likelihood Estimation of the Proportional Odds Model—**❖ Evrim Oral, Middle East Technical University

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

9:50 am **Using Variation Reduction Point To Remove Extraneous Effect in Modeling**—❖ Chong Yau Fu, National Yang-Ming University; Shih-Hua Liu, National Yunlin University of Science & Technology

10:05 am **Floor Discussion**

249   CC-610
● Design of Power and Sample Size in Clinical Trials—Contributed
Biometrics Section, ENAR

Chair(s): James F. Ward, Sand Point Statistics Group

8:35 am **Blinded Sample-Size Re-estimation in Randomized Block Trials with Continuous Endpoint**—❖ Biao Xing, Genentech, Inc.; Jitendra Ganju, BiostatWorks

8:50 am **Sample Size Re-estimation for Time-to-Event Studies**—❖ Erinn Hade, The Ohio State University; Soledad Fernandez, The Ohio State University; David Jarjoura, The Ohio State University

9:05 am **Sample Size and Power Calculation with Generalized Mixed Effects Model**—❖ Qianyu Dang, University of Pittsburgh; Sati Mazumdar, University of Pittsburgh

9:20 am **Design of Clinical Trials with Flexible Sample Size**—❖ Lu Cui, sanofi-aventis; Fang Liu, Merck Research Laboratories; Ray Zhu, sanofi-aventis

9:35 am **Approximate Confidence Intervals for Power in UNIREP Analyses**—❖ Matthew Gribbin, The University of North Carolina at Chapel Hill

9:50 am **Designing Standardly Tailored Multicomponent Intervention Trials in Medicine To Yield Unbiased Effect Estimates**—❖ Heather G. Allore, Yale University

10:05 am **Evaluation of Several Multiple Comparison Procedures for Noninferiority Trials with Two Doses of a Treatment and a Control with a Binary Success Rate Endpoint**—❖ Hongling Zhou, U.S. Food and Drug Administration; Mohammad Huque, U.S. Food and Drug Administration

250   CC-606
✪ Censoring and Modeling with Censoring—Contributed
Section on Statistics in Epidemiology, Biometrics Section, ENAR

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

8:35 am **Interval Estimation for a Measure of Stochastic Superiority**—❖ Euijung Ryu, University of Florida

8:50 am **Estimating Equation Approach for Regression Analysis of Interval-Censored Failure Time Data**—❖ HeeJeong Lim, California State University, Fullerton; Xingqiu Zhao, McMaster University; Jianguo Sun, University of Missouri-Columbia

9:05 am **Sensitivity of the Kaplan-Meier Estimate to Nonignorable Censoring**—❖ Tao Liu, University of Pennsylvania School of Medicine ; Daniel F. Heitjan, University of Pennsylvania

9:20 am **Censoring Point in Logistic ELISA Standard Curves**—❖ Ryan E. Wiegand, Medical University of South Carolina; Elizabeth H. Slate, Medical University of South Carolina; Elizabeth G. Hill, Medical University of South Carolina; Jyotika K. Fernandes, Medical University of South Carolina

9:35 am **Biases Due to Left Censoring and Left Truncation in Estimating Menopausal Transition Stages from Menstrual Cycle Data**—Kevin Cain, University of Washington; ❖ Bin Nan, University of Michigan

9:50 am **Predicting Exposure at a Specified Time Based on an Extended Randomized Regression Model for Interval-Censored Data**—❖ Robert Lyles, Emory University; Amita K. Manatunga, Emory University; Renee Moore, Emory University; Michele Marcus, Emory University

10:05 am **Inference for partially observed systems, with an application to cholera.** —Edward L. Ionides, University of Michigan; ❖ Carles Breto, University of Michigan; Aaron A. King, University of Michigan

251   CC-604
● ✪ Design and Analysis Issues in Epidemiological Modeling—Contributed
Section on Statistics in Epidemiology

Chair(s): Jonathan Mahnken, The University of Kansas Medical Center

8:35 am **Data Analysis under Case-Cohort Designs with Clustered Binary Outcome Data**—❖ Shou-En Lu, University of Medicine & Dentistry of New Jersey; Yong Lin, University of Medicine & Dentistry of New Jersey; Joanna H. Shih, National Cancer Institute

8:50 am **Early, Cost-Effective Identification of High-Risk/Priority Control Areas in Foot-and-Mouth**

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Disease Epidemics—❖ Steven Schwager, Cornell University; Ariel Rivas, Cornell University; Stephen Smith, Cornell University; Antoni Magri, Cornell University

9:05 am **Capture-Recapture Revisited**—❖ Lawrence Lessner, SUNY University at Albany

9:20 am **Heterogeneity on Estimation Size of Hard-to-Reach Population Using Capture-Recapture Data**—❖ Shenghai Zhang, Public Health Agency of Canada

9:35 am **Analysis of a Disease and Probability of Exposure Association Using a Replicated Error-Prone Exposure Assessment**—❖ Chengxing Lu, Emory University; Robert Lyles, Emory University

9:50 am **A Two-Phase Analysis of Air Pollution and Adverse Birth Outcomes**—❖ Katherine Hoggatt, University of Michigan; Sander Greenland, University of California, Los Angeles; Beate Ritz, University of California, Los Angeles

10:05 am **Floor Discussion**

252 CC-201
● Survey-Based Variance Estimation I— Contributed

Section on Survey Research Methods

Chair(s): Keith Rust, Westat/University of Maryland

8:35 am **Confidence Intervals for Quantile Estimation from Complex Survey Data**—❖ Babubhai V. Shah, SAFAL Institute Inc.; Akhil Vaish, RTI International

8:50 am **Estimating Prevalence When a Subset of the Sample Requires Further Evaluation**—❖ David C. Hoaglin, Abt Associates Inc.; K. P. Srinath, Abt Associates Inc.

9:05 am **Variance Estimation for Ordered Categories**—❖ Steven Pedlow, NORC; Yongyi Wang, NORC; Kirk Wolter, NORC

9:20 am **Variance Estimation in a Survey for Iowa's State Board of Education**—Michael D. Larsen, Iowa State University; ❖ Lu Lu, Iowa State University

9:35 am **Variance Estimation in Complex Survey Sampling for Generalized Linear Models**—❖ Sundar Natarajan, New York University Medical Center; Stuart Lipsitz, Brigham and Women's Hospital; Garrett Fitzmaurice, Harvard University; Charity G. Moore, University of South Carolina

9:50 am **Variance Estimation of the Survey-Weighted**

Kappa Measure of Agreement—❖ Moshe Feder, RTI International

10:05 am **Improved Confidence Intervals for the Bernoulli Parameter**—Wheyming Tina Song, National Tsing Hua University; ❖ Chia-Jung Chang, National Tsing Hua University

253 CC-203
● Survey-Based Estimation II—Contributed

Section on Survey Research Methods

Chair(s): Elizabeth R. Zell, Centers for Disease Control and Prevention

8:35 am **Methods for Birth Cohort Analysis for the National Immunization Survey**—❖ Phil Smith, Centers for Disease Control and Prevention; Kirk Wolter, NORC; James Singleton, Centers for Disease Control and Prevention

8:50 am **Estimation of Regression Coefficients with Unequal Probability Samples**—❖ Yu Wu, Iowa State University; Wayne Fuller, Iowa State University

9:05 am **Indirect Sampling and the Problem of Identification of Links**—❖ Pierre LavallÈe, Statistics Canada; Xiaojian Xu, University of Alberta

9:20 am **A Comparison between Ratio Estimation and Post-Stratification**—❖ Chang-Tai Chao, National Cheng Kung University; Tzu-Ching Chiang, National Cheng Kung University

9:35 am **Using Income as an Auxiliary Variable To Improve the Design of Household Expenditure Surveys**—❖ Charles Mitchell, Statistics Canada; Christian Nadeau, Statistics Canada

9:50 am **Model Averaging in Survey Estimation**—❖ Xiaoxi Li, Iowa State University; Jean D. Opsomer, Iowa State University

10:05 am **Integrating Person and Housing Unit Weighting for the Current Population Survey**—❖ Andrew Zbikowski, U.S. Census Bureau; Phawn Letourneau, U.S. Census Bureau

254 CC-620
● Nonparametric Regression Methods II— Contributed

Section on Nonparametric Statistics

Chair(s): Yolanda Munoz Maldonado, The University of Texas School of Public Health

GENERAL PROGRAM SCHEDULE

⊘ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

8:35 am **Spline Single-Index Prediction Model**—❖ Li Wang, Michigan State University; Lijian Yang, Michigan State University

8:50 am **Testing Lack-of-Fit of Heteroscedastic Nonlinear Regression Models with Local Linear Smoothers**—❖ Chin-Shang Li, St. Jude Children's Research Hospital

9:05 am **Local Analytic Curve Estimation**—❖ Richard Charnigo, University of Kentucky; Cidambi Srinivasan, University of Kentucky

9:20 am **Nonparametric regression with coarsened predictors**—❖ Aurore Delaigle, University of California, San Diego

9:35 am **Asymptotic Approximation to a Nonparametric Regression Experiment with Unknown Variance**—❖ Andrew Carter, University of California, Santa Barbara

9:50 am **Floor Discussion**

255   CC-611
● Biomarkers and Joint Models—Contributed
Biometrics Section, WNAR, ENAR

Chair(s): Elizabeth Brown, University of Washington

8:35 am **Mixtures-of-Experts Joint Model for Longitudinal Biomarkers and Recurrent Events**—❖ Jun Han, Georgia State University; Elizabeth H. Slate, Medical University of South Carolina; Edsel PeÒa, University of South Carolina

8:50 am **Joint Analysis of Longitudinal Measurements and Competing Risks Failure Time Data**—❖ Ning Li, University of California, Los Angeles; Robert Elashoff, University of California, Los Angeles; Gang Li, University of California, Los Angeles

9:05 am **Joint Modeling of Survival and Longitudinal Data**—Jimin Ding, University of California, Davis

9:20 am **Type I and II Error of Joint Multimarkers Cox Models To Predict Chronic Disease Outcomes**—❖ Philimon Gona, Boston University

9:35 am **Robust Analysis of Biomarker Data with Informative Missingness Using a Two-Stage Hypothesis Test in an HIV Treatment Interruption Trial: AIEDRP AIN503 /ACTG A5217**—❖ Karen Messer, University of California, San Diego; Florin Vaida, University of California, San Diego; Christine Hogan, Columbia University

9:50 am **Evaluating Causal Effect Predictiveness of Candidate Surrogate Endpoints**—❖ Peter Gilbert,

Fred Hutchinson Cancer Research Center/ University of Washington; Michael G. Hudgens, The University of North Carolina at Chapel Hill

10:05 am **A Novel Approach for Proteomic Biomarker Identification Using Mass Spectrometry**—❖ Chen Ji, Stony Brook University; Yeming Ma, Brookhaven National Laboratory; Xuena Wang, University of Hawaii; Esther Arkin, Stony Brook University; Joseph Mitchell, Stony Brook University; Wei Zhu, Stony Brook University

Special Presentation 10:30 am–12:20 pm

256   CC-400
College Bowl I—Other
The ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Mark Payton, Oklahoma State University
Chair(s): Mark Payton, Oklahoma State University

Game 4—❖ Ke Zhang, Kansas State University; ❖ Tanujit Dey, Case Western Reserve University; ❖ Christopher Rigdon, Southern Illinois University

Game 3—❖ Fang Yu, University of Connecticut; ❖ Alicia Graziosi, Temple University; ❖ Arunava Chakravartty, University of California, Riverside; ❖ Rajarshi Dey, Kansas State University

Game 2—❖ Vivekananda Roy, University of Florida; ❖ Ying Hung, Georgia Institute of Technology; ❖ Dipankar Bandyopadhyay, University of Georgia; ❖ Jeffrey Lidicker, Temple University

Game 1—❖ Upasana Santra, University of Florida; ❖ Samiran Ghosh, University of Connecticut; ❖ Susanta Tewari, University of Georgia; ❖ Xinwei Deng, Georgia Institute of Technology

Invited Sessions 10:30 am–12:20 pm

257   CC-4C-4
● ⊘ Hurricane Katrina and Economic Data—Invited
Business and Economics Statistics Section

Organizer(s): John L. Eltinge, Bureau of Labor Statistics
Chair(s): John L. Eltinge, Bureau of Labor Statistics

Tuesday

10:35 am	**Current Population Survey Response to the Hurricane Katrina Disaster**—❖ Edwin L. Robison, Bureau of Labor Statistics; Anne Polivka, Bureau of Labor Statistics; Diane Herz, Bureau of Labor Statistics; Lawrence Cahoon, U.S. Census Bureau; Richard Ning, U.S. Census Bureau; Maria Reed, U.S. Census Bureau; Greg Weyland, U.S. Census Bureau
11:00 am	**Accounting for Katrina Effects in State Labor Force Estimates**—❖ Richard Tiller, Bureau of Labor Statistics; Sharon Brown, Bureau of Labor Statistics
11:25 am	**Effects of Hurricane Katrina on the BLS Payroll Survey**—❖ Patricia Getz, Bureau of Labor Statistics; Richard Rosen, Bureau of Labor Statistics; Larry Huff, Bureau of Labor Statistics; Angela Clinton, Bureau of Labor Statistics
11:50 am	**Analysis and Procedures in the Census Bureau's Trade Surveys after Hurricane Katrina**—❖ Jock R. Black, U.S. Census Bureau; Ruth E. Detlefsen, U.S. Census Bureau
12:15 pm	**Floor Discussion**

258   CC-607

● ✪ Estimation of Treatment Effect for Clinical Trials with Group Sequential Designs—Invited

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Michael W. Lee, Johnson & Johnson Pharmaceutical R&D; Hui Quan, sanofi-aventis

Chair(s): Daowen Zhang, sanofi-aventis

10:35 am	**Estimation Following Group Sequential Trials: a Bayesian View**—❖ Gary L. Rosner, M. D. Anderson Cancer Center
11:10 am	**Conditional Estimation of Treatment Effects for Clinical Trials with Group Sequential Designs**—❖ Michael W. Lee, Johnson & Johnson Pharmaceutical R&D; Hui Quan, sanofi-aventis
11:45 am	Disc: Weichung J. Shih, University of Medicine & Dentistry of New Jersey
12:05 pm	**Floor Discussion**

259   CC-2B

● ✪ Advances in Phylogenetic Inference—Invited

IMS, WNAR

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

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

10:35 am	**Analysis of Comparative Data with Hierarchical Autocorrelation**—❖ Cecile Ane, University of Wisconsin-Madison
11:00 am	**Using Bootstrap Support for Splits To Construct Confidence Regions for Trees**—❖ Edward Susko, Dahousie University
11:25 am	**The Threshold Model: an Underutilized Resource in Phylogenetic Inference**—❖ Joseph Felsenstein, University of Washington
11:50 am	**Algebraic Statistics and Phylogenetic Inference: Establishing Identifiability of Mutation Models**—❖ Elizabeth S. Allman, University of Alaska, Fairbanks; John A. Rhodes, University of Alaska, Fairbanks
12:15 pm	**Floor Discussion**

260   CC-210

● Personal Networks: Applications Using Data on Social Relationships—Invited

Section on Statistical Computing, Section on Statisticians in Defense and National Security, Section on Statistical Graphics

Organizer(s): Chris Volinsky, AT&T Labs-Research

Chair(s): Deepak K. Agarwal, AT&T Labs-Research

10:35 am	**Design and Analysis of 'How Many Xs Do You Know?' Surveys**—❖ Tian Zheng, Columbia University; Andrew Gelman, Columbia University
11:00 am	**Data Mining in Networks**—❖ David Jensen, University of Massachusetts
11:25 am	**The Dynamics of Viral Marketing**—Jure Leskovec, Carnegie Mellon University; ❖ Lada A. Adamic, University of Michigan; Bernardo Huberman, Hewlett Packard Labs
11:50 am	**Modeling Massive Dynamic Graphs**—❖ Chris Volinsky, AT&T Labs-Research
12:15 pm	**Floor Discussion**

261   CC-206

● Modeling Behavioral Data from Clinical Research on Smoking—Invited

Section on Health Policy Statistics, Biometrics Section

Organizer(s): E. PaulWileyto, University of Pennsylvania

Chair(s): Joseph L. Schafer, Penn State

10:35 am	**Modeling Heaping in Self-Reported Cigarette Counts**—❖ Daniel F. Heitjan, University of Pennsylvania
11:00 am	**A Cure Mixture Model for Multivariate Time-to-**

——— GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Tuesday

PRELIMINARY PROGRAM

Event Data—❖ E. Paul Wileyto, University of Pennsylvania

11:25 am **Modeling Variation in the Effects of Smoking Using Intensive Longitudinal Data—**❖ Donald Hedeker, University of Illinois at Chicago

11:50 am **Exploring the Relationship between Adverse Events, Compliance, Dropout, and Abstinence in Pharmacotherapy Smoking Cessation Trials—**❖ Joel A. Dubin, University of Waterloo

12:15 pm **Floor Discussion**

262   CC-603
● ✪ Complex Data Structures—Invited
SSC

Organizer(s): James Stafford, University of Toronto

Chair(s): James Stafford, University of Toronto

10:35 am **Issues Relating to Methods for Analysis of Survey Data—**❖ David Binder, Statistical Society of Canada; Georgia Roberts, Statistics Canada

11:05 am **Spatial-Temporal Modeling for Marine Ecological Systems—**❖ Joanna M. Flemming, Dalhousie University

11:35 am **A Stochastic Model for Forest Fire Growth—**❖ Willard J. Braun, University of Western Ontario

12:05 pm **Floor Discussion**

263   CC-3A
● ✪ Effective Leadership for Statistical Thinking and Impact—Invited
Council of Chapters, Section on Statistical Education, Section on Statistical Consulting

Organizer(s): James Kenyon, Bristol-Myers Squibb Company

Chair(s): James Kenyon, Bristol-Myers Squibb Company

10:35 am **Building Statistical Thinking into the School Curriculum: Obstacles and Opportunities—**❖ Richard L. Scheaffer, University of Florida

11:05 am **Seven Habits of Highly Effective Statisticians in Pharmaceutical Industry—**❖ Frank Shen, Bristol-Myers Squibb Company

11:35 am **Effective Statistical Leadership in Government and Industry—**❖ Fritz J. Scheuren, NORC

12:05 pm **Floor Discussion**

264   CC-604
● Bombs to Bullets, People to Planets: Exploring

Imaging Applications with a Statistician's Eye—Invited
Section on Physical and Engineering Sciences, Section on Statisticians in Defense and National Security, Section on Statistical Graphics

Organizer(s): Kary Myers, Los Alamos National Laboratory

Chair(s): Kary Myers, Los Alamos National Laboratory

10:35 am **Do Guns Transfer Their DNA to Bullets?—**❖ William F. Eddy, Carnegie Mellon University

11:00 am **Using Image Grand Tour To Explore Multiangle, Multispectral Satellite Imagery—**❖ Amy Braverman, Jet Propulsion Laboratory; Edward Wegman, George Mason University; Wendy Martinez, Office of Naval Research; Juergen Symanzik, Utah State University; Brad Wallet, Automated Decisions

11:25 am **Tomographic Imaging Using Background Cosmic Radiation—**❖ Nicolas Hengartner, Los Alamos National Laboratory

11:50 am **Using Statistics To Search and Annotate Pictures—**❖ Nuno Vasconcelos, University of California, San Diego; Pedro J. Moreno, Google, Inc.

12:15 pm **Floor Discussion**

265   CC-616
● ✪ Bayesian Spatio-Temporal Models—Invited
WNAR, Biometrics Section, Section on Bayesian Statistical Science, Section on Statistics and the Environment

Organizer(s): Bruno Sanso, University of California, Santa Cruz

Chair(s): Catherine A. Calder, The Ohio State University

10:35 am **Spatial Dynamic Factor Models—**❖ Hedibert F. Lopes, The University of Chicago; Esther S. Salazar, Instituto de Matem·tica-UFRJ; Dani Gamerman, Instituto de Matem·tica-UFRJ

11:00 am **Characterizing Invasions with Hierarchical, Rule-Based Systems—**❖ Mevin B. Hooten, University of Missouri-Columbia; Christopher K. Wikle, University of Missouri-Columbia

11:25 am **Spatially Varying AR Processes Based on Discrete Convolutions—**❖ Bruno Sanso, University of California, Santa Cruz; Alexandra Schmidt, Universidade Federal de Rio de Janeiro; Aline Nobre, Universidade Federal de Rio de Janeiro

11:50 am **Using Computer Models To Inform about Space-Time Fields—**❖ Dave Higdon, Los Alamos National Laboratory

12:15 am **Floor Discussion**

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

266 · CC-211
● ✪ Challenges Facing the Next Generation of Applied Statisticians—Invited

Social Statistics Section, Committee on Applied Statisticians, Committee on Women in Statistics, Committee on Law and Justice Statistics, Section on Statistical Education, Section on Statistical Consulting

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

Chair(s): Alan M. Zaslavsky, Harvard Medical School

10:35 am	**Motivations and Challenges Facing Women Statisticians**—❖ Kelly H. Zou, Harvard Medical School
11:00 am	**Statistical Tools Employed in Legal Settings**—❖ Mary W. Gray, American University
11:25 am	**Professional Accreditation for Statisticians**—❖ Mary Batcher, Ernst & Young LLP
11:50 am	Disc: Kimberly F. Sellers, Georgetown University
12:10 pm	**Floor Discussion**

Invited Panels 10:30 am–12:20 pm

267 · CC-2A
● Practical Issues in Conducting Statistics Education Research—Invited

Section on Statistical Education

Organizer(s): Joan Garfield, University of Minnesota

Chair(s): Joan Garfield, University of Minnesota

Panelists:	❖ Robert DelMas, University of Minnesota
	❖ Lawrence M. Lesser, The University of Texas at El Paso
	❖ Beth Chance, California Polytechnic State University, San Luis Obispo
	❖ Sterling Hilton, Brigham Young University
	❖ Andrew Zieffler, University of Minnesota
12:15 pm	**Floor Discussion**

Topic-Contributed Sessions 10:30 am–12:20 pm

268 · CC-601
● Nonparametric Statistical Process Control Methods—Topic-Contributed

Section on Quality and Productivity, Section on Nonparametric Statistics

Organizer(s): Subha Chakraborti, The University of Alabama

Chair(s): Subha Chakraborti, The University of Alabama

10:35 am	**Minimum Control Charts**—❖ Willem Albers, University Twente
10:55 am	**Distribution-Free Quality Control Charts Based on Signed-Rank-Like Statistics**—❖ Saad Bakir, Alabama State University
11:15 am	**Dispersion Control Charts Based on Ranks**—❖ Raid Amin, University of West Florida
11:35 am	**Distribution-Free Multivariate Process Control Based on Log-Linear Modeling**—❖ Peihua Qiu, University of Minnesota
11:55 am	**A Bayesian Approach in Modeling Shifts of the Mean/Variance of Count Data**—❖ Panagiotis Tsiamyrtzis, Athens University of Economics and Business; Douglas M. Hawkins, University of Minnesota
12:15 pm	**Floor Discussion**

269 · CC-609
● ✪ Bayesian Computational Methods for Biomedical Applications—Topic-Contributed

Section on Bayesian Statistical Science, Biometrics Section, ENAR

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

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

10:35 am	**Bayesian Hidden Markov Modeling of Array CGH Data**—❖ Subharup Guha,
10:55 am	**A Hierarchical Bayesian Analysis of Longitudinal Frequency Data Using Piecewise Linear Regression**—❖ John Kern, Duquesne University; Nicholas Bernini, Duquesne University; Sujit Ghosh, North Carolina State University
11:15 am	**Bayesian Spatial Modeling of Data from Bird Surveys**—❖ Raymond Webster, North Carolina State University; Kenneth Pollock, North Carolina State University; Theodore Simons, North Carolina State University
11:35 am	**Bayesian Inference for NLME Models Involving ODEs**—❖ Sujit Ghosh, North Carolina State University; Lovely Goyal,
11:55 am	**Bayesian Modeling of Longitudinal Data with Nonignorable Missing Data**—❖ Liansheng Zhu, North Carolina State University; Sujit Ghosh, North Carolina State University; Subhashis Ghosal, North Carolina State University
12:15 pm	**Floor Discussion**

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Tuesday

270   CC-617
● Recent Advances in Analyzing Agreement Data—Topic-Contributed

Biometrics Section, ENAR

Organizer(s): Ananda Sen, University of Michigan

Chair(s): Ananda Sen, University of Michigan

10:35 am	**Bivariate Modeling of Interobserver Agreement Coefficients—**❖ Mohamed Shoukri, King Faisal Specialist Hospital; Allan Donner, University of Western Ontario
10:55 am	**A Weighted Kappa for Agreement between Two Ratings with Different Ordinal Scales—**❖ Stuart Lipsitz, Brigham and Women's Hospital
11:15 am	**Coefficient of Agreement for Binary Data with Replications—**❖ Huiman Barnhart, Duke University; Michael Haber, Emory University; Andrzej Kosinski, Duke University
11:35 am	**A Permutation Test for Dependent Concordance Correlation Coefficients—**❖ John M. Williamson, Centers for Disease Control and Prevention; Hung-Mo Lin, Penn State; Sara Crawford, The Rollins School of Public Health of Emory University
11:55 am	Disc: Allan Donner, University of Western Ontario
12:15 pm	**Floor Discussion**

271   CC-602
● ✪ Extremes: Methods for Environmental and Meteorological Studies—Topic-Contributed

WNAR

Organizer(s): Daniel Cooley, Colorado State University

Chair(s): Daniel Cooley, Colorado State University

10:35 am	**How Good Are the Air Quality Standards?—**❖ Sofia Aberg, Lund University; Peter Guttorp, University of Washington
10:55 am	**A Statistical Approach to North American Rainfall—**❖ Jie Zhou, The University of North Carolina at Chapel Hill
11:15 am	**Bayesian Hierarchical Modeling for Extreme Values in Spatio-Temporal Data—**❖ Huiyan Sang, Duke University; Alan E. Gelfand, Duke University
11:35 am	**Predicting Extreme Hurricane Winds in the United States—**❖ Thomas Jagger, Florida State University

11:55 am	**Statistical Analysis of a POT Model with Time-Varying Extreme Parameters—**❖ Marta Nogaj, Commission of Atomic Energy
12:15 pm	**Floor Discussion**

272   CC-611
● ✪ Outcome-Dependent Sampling—Topic-Contributed

Section on Statistics in Epidemiology

Organizer(s): Jonathan Wakefield, University of Washington

Chair(s): James Lynch, University of Nebraska Medical Center

10:35 am	**The Combination of Ecological and Individual-Level Data—**❖ Jonathan Wakefield, University of Washington; Sebastien Haneuse, Group Health Cooperative
10:55 am	**Two-Phase Methods for Ecological Studies—**❖ Sebastien Haneuse, Group Health Cooperative; Jonathan Wakefield, University of Washington
11:15 am	**The Optimal Ratio of Cases to Controls for Estimating the Classification Accuracy of a Biomarker—**❖ Holly E. Janes, The Johns Hopkins University; Margaret S. Pepe, Fred Hutchinson Cancer Research Center/University of Washington
11:35 am	**An Efficient Outcome-Dependent Sampling Design for Longitudinal Binary Response Data—**❖ Jon Schildcrout, Vanderbilt University Medical Center; Patrick Heagerty, University of Washington
11:55 am	Disc: Patrick Heagerty, University of Washington
12:15 pm	**Floor Discussion**

273   CC-201
● The Transition from the Long Form to the American Community Survey: Findings from The National Academies Panel—Topic-Contributed

Section on Survey Research Methods

Organizer(s): Michael L. Cohen, Committee on National Statistics

Chair(s): Michael L. Cohen, Committee on National Statistics

10:35 am	**Functionality and Usability of Information from the American Community Survey—**❖ Connie Citro, Committee on National Statistics; Graham Kalton, Westat; Michael L. Cohen, Committee on National Statistics
10:55 am	**The ACS and the Data User Community—**❖ Joseph Salvo, New York City; Nancy Dunton,

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

The University of Kansas Medical Center; Charles Purvis, Oakland Metro Transportation Commission

11:15 am **Methodological Issues in the ACS—**❖ Graham Kalton, Westat; Tim Holt, Retired; Sharon Lohr, Arizona State University; Hal Stern, University of California, Irvine

11:35 am Disc: Jay Waite, U.S. Census Bureau

11:55 am Disc: Allen Schirm, Mathematica Policy Research, Inc.

12:15 pm **Floor Discussion**

274   CC-212
Student Paper Award Winners—Topic-Contributed

Section on Statistical Computing, Section on Statistical Graphics

Organizer(s): Jose Pinheiro, Novartis Pharmaceuticals Corporation

Chair(s): Jose Pinheiro, Novartis Pharmaceuticals Corporation

10:35 am **Efficient Computation and Variable Selection for the L1-Norm Quantile Regression—**❖ Youjuan Li, University of Michigan; Ji Zhu, University of Michigan

10:55 am **An Algorithm for Regression of Scalars on Images—**❖ Philip Reiss, Columbia University; R. Todd Ogden, Columbia University

11:15 am **Clustering with Confidence—**❖ Rebecca Nugent, University of Washington; Werner Stuetzle, University of Washington

11:35 am **Kernel Regularization and Dimension Reduction—** Fan Lu, University of Wisconsin-Madison; Grace Wahba, University of Wisconsin-Madison; Yi Lin, University of Wisconsin-Madison; Sunduz Keles, University of Wisconsin-Madison; Stephen J. Wright, University of Wisconsin-Madison

11:55 am Disc: Charles Roosen, Insightful Corporation

12:15 pm **Floor Discussion**

275   CC-205
● Measuring and Improving Data Quality—Topic-Contributed

Section on Government Statistics

Organizer(s): Nancy M. Gordon, U.S. Census Bureau

Chair(s): Nancy M. Gordon, U.S. Census Bureau

10:35 am **How Do We Know If We Aren't Looking? An Investigation of Data Quality in the SCF—**❖ Arthur Kennickell, Federal Reserve Board

10:55 am **An Economic Analysis of Survey Response Quality—**❖ Julia Lane, NORC; Leslie Athey, NORC; Suzanne Bard, NORC; Judith Petty, NORC

11:15 am **Effects of Late-Stage Completions on Data Quality—**❖ Karen Grigorian, NORC; Thomas B. Hoffer, NORC; Ronald S. Fecso, National Science Foundation

11:35 am Disc: Cheryl R. Landman, U.S. Census Bureau

11:55 am **Floor Discussion**

276   CC-608
High Dimensional Modeling and Model Selection—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Christopher Hans, The Ohio State University

Chair(s): Herbert Lee, University of California, Santa Cruz

10:35 am **Priors for High-Dimensional Covariance Models—**❖ Charles Curry, University of California, Santa Cruz

10:55 am **High-Dimensional Modeling and Model Selection—**❖ Carlos Carvalho, Duke University

11:15 am **Sparsity in Linear Regression for High-Dimensional Problems—**❖ Christopher Hans, The Ohio State University

11:35 am **A Bayesian Nonparametric Approach for Expression Proteomic Analyses—**❖ Leanna House, Duke University; Merlise Clyde, Duke University; Robert Wolpert, Duke University

11:55 am **Making Sense of Estimating Integrated Likelihoods: Bridges, Paths, and Other Routes—**❖ Russell Steele, McGill University

12:15 pm **Floor Discussion**

277   CC-615
✪ Topics in Function Estimation Using Isotonization and Smoothing Techniques—Topic-Contributed

IMS, Section on Nonparametric Statistics

Organizer(s): Moulinath Banerjee, University of Michigan

Chair(s): Jon A. Wellner, University of Washington

10:35 am **Nonparametric Density Estimation from Covariate Information—**❖ Ryan Elmore, Colorado State University; Peter G. Hall, Australian National University; Vladimir Troynikov, Department of Primary Industries

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

10:55 am **Limiting Distribution of the NPMLE for Current Status Data with Competing Risks**—❖ Marloes Maathuis, University of Washington

11:15 am **Penalized Likelihood Ratio Method for the Spiking Problem in Nonincreasing Density Estimation**—❖ Jayanta Pal, University of Michigan

11:35 am **Fractile Graphical Analysis with Multiple Covariates**—❖ Bodhisattva Sen, University of Michigan

11:55 am Disc: Moulinath Banerjee, University of Michigan

12:15 pm **Floor Discussion**

Regular Contributed Sessions
10:30 am–12:20 pm

278   CC-203
● Sample Survey Quality III—Contributed
Section on Survey Research Methods

Chair(s): David Dolson, Statistics Canada

10:35 am **Evaluation of New Cell-Phone-Only Households with Knowledge Networks' National Panel Data**—❖ Vicki Pineau, Knowledge Networks, Inc.; Lingrui Jiang, Knowledge Networks, Inc.

10:50 am **An Evaluation of Methods To Compensate for Noncoverage of Phoneless Households Using Information on Interruptions in Telephone Service and Presence of Wireless Phones**—❖ Meena Khare, ; Sadeq Chowdhury, NORC; Kirk Wolter, NORC; Karen Wooten, National Immunization Program; Stephen Blumberg, National Center for Health Statistics

11:05 am **Using Record Linkage Techniques To Improve Online Genealogical Research with Census Records**—❖ John Lawson, Brigham Young University

11:20 am **Integrating Culture Industries into Canada's National Economic Surveys Program**—❖ Mary March, Statistics Canada; Paddison Wong, Statistics Canada

11:35 am **The Internet Response Method: Impact on the Canadian Census of Population Data**—❖ Laurent Roy, Statistics Canada

11:50 am **Good Item or Bad: Can Latent Class Analysis Tell? Examining the Effectiveness of the Latent Class Analysis Approach to Item Evaluation**—❖

Frauke Kreuter, University of Maryland; Roger Tourangeau, University of Maryland; Ting Yan, Institute for Social Research

12:05 pm **Population Coverage in the National Survey on Drug Use and Health**—Susan R. Hunter, RTI International; ❖ Katherine B. Morton, RTI International; James Chromy, RTI International; Peilan C. Martin, RTI International

279   CC-204
● Survey-Based Estimation III—Contributed
Section on Survey Research Methods

Chair(s): Bryan Sayer, Social & Scientific Systems, Inc.

10:35 am **New Cell Collapsing Strategies Based on Collapsing Adjustment Factor**—❖ Jay J. Kim, National Center for Health Statistics; Richard Valliant, University of Michigan; Wenxing Zha, National Institutes of Health

10:50 am **Stratification for Radio Listening Estimation**—❖ Richard Griffiths, Arbitron Inc.

11:05 am **Calculating Effect Sizes Using Survey Data**—❖ Jun Liu, Research Triangle Institute

11:20 am **Estimation for Two-Phase Panel Surveys**—❖ Jason Legg, Iowa State University; Wayne Fuller, Iowa State University; Sarah M. Nusser, Iowa State University

11:35 am **Evaluation of Collapsing Criteria in Sample Weighting**—❖ Linda Tompkins, National Center for Health Statistics; Jay J. Kim, National Center for Health Statistics; Wenxing Zha, National Institutes of Health

11:50 am **A Pseudo-Empirical Likelihood Approach for Stratified Samples with Nonresponse**—❖ Fang Fang, University of Wisconsin-Madison; Quan Hong, Eli Lilly and Company; Jun Shao, University of Wisconsin-Madison

12:05 pm **Estimation Methods To Produce Preliminary Statistics in an Employment Survey**—❖ Anders Holmberg, Statistics Sweden; Natalie Jansson, Statistics Sweden; Martin Odencrants, Statistics Sweden

280   CC-3B
Hot Topics in Sports—Contributed
Section on Statistics in Sports, Section on Statistical Education

Chair(s): Michael Anderson, Battelle

Tuesday

10:35 am **A Compound Logistic Regression Model for Third Down Efficiency in the NFL**—❖ Christopher Rigdon, Southern Illinois University; Steve Rigdon, Southern Illinois University

10:50 am **A Cross-Country Comparison of Efficiency of Soccer-Betting Markets**—❖ Ruud H. Koning, University of Groningen

11:05 am **Using Spatial Analysis as a Coaching Tool in Ice Hockey**—❖ Robin Lock, St. Lawrence University; Travis Gingras, St. Lawrence University; Chris Wells, St. Lawrence University; Michael Schuckers, St. Lawrence University

11:20 am **An Interesting Classroom Exercise**—❖ Laurence Robinson, Ohio Northern University

11:35 am **Identifying and Evaluating Contrarian Strategies for NCAA Tournament Pools**—❖ Jarad Niemi, Duke University; Bradley P. Carlin, University of Minnesota; Jonathan Alexander, Duke University

11:50 am **Improved College Football Scheduling using a Pseudo-Swiss System**—❖ David Annis, Naval Postgraduate School; Samuel Wu, University of Florida

12:05 pm **Regressing Modeling Using Multiple Sources To Detect Group-Level Differences in Pitching Performance**—❖ Liam O'Brien, Colby College; Matthew Aschaffenburg, Colby College

281   CC-614
● ✪ Pedigree/Population Analyses—Contributed
Section on Statistics in Epidemiology, Biometrics Section, ENAR
Chair(s): Jinbo Chen, University of Pennsylvania

10:35 am **Family-Based Liquid Association Analysis on Atherosclerosis in C3H/HeJ. ApoE-/- x C57BL/6J. ApoE-/- Cross**—❖ Tun-Hsiang Yang, University of California, Los Angeles; Ker-Chau Li, University of California, Los Angeles; Shinsheng Yuan, University of California, Los Angeles; Aldons J. Lusis, University of California, Los Angeles; Wei Sun, University of California, Los Angeles; Susanna Wang, University of California, Los Angeles

10:50 am **Evaluating the Impact of Family Structure on Estimating Genetic Association Parameters in Family Studies**—❖ Stefan Boehringer, National Cancer Institute; Ruth Pfeiffer, National Cancer Institute

11:05 am **Evaluation of Three Approaches To Correct for**

Ascertainment of Pedigrees for Random-Effects Cox Proportional Hazard Linkage Analysis—❖ Susan Slager, Mayo Clinic College of Medicine; Shannon K. McDonnell, Mayo Clinic College of Medicine; Vernon S. Pankratz, Mayo Clinic College of Medicine; Antje Hoering, Cancer Research and Biostatistics; Terry M. Therneau, Mayo Clinic College of Medicine; Mariza de Andrade, Mayo Clinic College of Medicine

11:20 am **A Probability Model for Recent Tb Transmissions in Genetic Clusters**—❖ Nong Shang,

11:35 am **Human Population Structure Detection via Multilocus Genotype Clustering**—❖ Xiaoyi Gao, North Carolina State University; Bruce S. Weir, University of Washington

11:50 am **Testing for Familial Aggregation When the Population Size Is Known**—❖ Yixin Fang, Columbia University

12:05 pm **A Study of an Allele-Sharing Statistic on Extended Pedigrees**—❖ Saonli Basu, University of Minnesota

282   CC-613
● ✪ Disease Modeling: Theory and Applications—Contributed
Section on Statistics in Epidemiology, Biometrics Section, ENAR
Chair(s): Eric Siegel, University of Arkansas for Medical Sciences

10:35 am **Model choice in time series studies of air pollution and mortality**—❖ Roger Peng, The Johns Hopkins University; Francesca Dominici, The Johns Hopkins University; Thomas A. Louis, The Johns Hopkins University

10:50 am **A Generalized Threshold Mixed Model for Analyzing Non-Normal Nonlinear Time Series: Plague in Kazakhstan as an Illustration**—❖ Noelle I. Samia, The University of Iowa; Kung-Sik Chan, The University of Iowa; Nils C. Stenseth, The University of Oslo

11:05 am **Statistical Determination of the Length of Quarantine Periods in an Epidemic**—❖ Xiaojun You,

11:20 am **Bayesian Analysis of the 1918 Influenza Pandemic in Baltimore, MD**—❖ Yue Yin,

11:35 am **Changes in Infant Mortality by Socioeconomic Status: U.S. Residents, 1995–2000**—❖ Jay H. Kim, Centers for Disease Control and Prevention; Joe Fred Gonzalez, Jr., National Center for Health

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✿ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

Statistics; Paul D. Williams, National Center for Health Statistics

11:50 am **BMI, Race, and Prostate Cancer**—❖ Negasi Beyene, National Center for Health Statistics

12:05 pm **Standardized Risk and Description of Results from Multivariable Modeling of a Binary Response**—Bong-Rae Kim, University of Florida; ❖ Randy L. Carter, University at Buffalo; P. V. Rao, University of Florida

283 CC-401
Portfolios and Derivations—Contributed
Business and Economics Statistics Section

Chair(s): Paul Shaman, University of Pennsylvania

10:35 am **Mimicking Portfolios with Conditioning Information**—❖ Andrew Siegel, University of Washington

10:50 am **Population Segmentation for Portfolio Strategies**—❖ Timothy H. Lee, ; Otto Schwalb,

11:05 am **Synthesis-Efficient Portfolio of Investment Projects**—❖ Alex Fedorov, Novosibirsk State Technical University; Dmitri Shubin, Novosibirsk State Technical University; Anatoly Naumov, Novosibirsk State Technical University

11:20 am **Assessing the Effects of Variability in Interest Rate Derivative Pricing**—❖ Michael Crotty, North Carolina State University; Peter Bloomfield, North Carolina State University

11:35 am **Structural Models of Corporate Bond Yields by Nonconvex Penalized Least Squares**—❖ Yuejiao Ma, Penn State

11:50 am **Toward Identification of Shocks in State-Space Models: Application to Stochastic Volatility**—❖ Nour Meddahi, MontrÈal University; StÈphane Gregoir, CREST/INSEE

12:05 pm **Estimating the Commonality in Volatility-Volume Relationship**—❖ Lei Zhang, Syracuse University; Raja Velu, Syracuse University; Tze Leung Lai, Stanford University; Haipeng Xing, Columbia University

284 CC-606
● Preclinical Design and Analysis—Contributed
Biopharmaceutical Section, ENAR

Chair(s): Kannan Natarajan, Novartis Pharmaceuticals Corporation

10:35 am **Some Results Concerning Multiplicities in Animal**

Carcinogenicity Studies—❖ Mohammad Rahman, U.S. Food and Drug Administration; Karl Lin, U.S. Food and Drug Administration

10:50 am **Predictive Fingerprint Modeling in Systems Biology**—❖ Lei Zhu, GlaxoSmithKline; Daniel Parks, GlaxoSmithKline; Xiwu Lin, GlaxoSmithKline; Kwan Lee, GlaxoSmithKline; Amit Bhattacharyya, GlaxoSmithKIine; Edit Kurali, GlaxoSmithKline; Amber Anderson, GlaxoSmithKline; Dilip Rajagopalan, GlaxoSmithKline

11:05 am **Evaluation of a Novel Metric for Quality Control in an RNA Interference High-Throughput Assay**—❖ Xiaohua Zhang, Merck Research Laboratories; Namjin Chung, Merck Research Laboratories; Amy Espeseth, Merck Research Laboratories; Marc Ferrer, Merck Research Laboratories

11:20 am **On Methods To Utilize HIV-RNA Data Measured by Two PCR Assays**—❖ Joshua Chen, Merck & Co., Inc.; Chunpeng Fan, University of Wisconsin-Madison; Jing Zhao, Merck & Co., Inc.

11:35 am **Consideration of Parallel-Line and Logistic models for Potency estimation**—❖ Bill Pikounis, Centocor R&D, Inc.; Ken Goldberg, Centocor R&D, Inc.

11:50 am **A Linear Model Approach To Detect Outliers in Quantitative PCR**—❖ Michael Man, Pfizer Inc.

12:05 pm **Quantification Limits in HIV Clinical Trials**—❖ Michael Nessly, Merck Research Laboratories

285 CC-612
● Sample Size—Contributed
Biopharmaceutical Section

Chair(s): Tom Kelleher, Bristol-Myers Squibb Company

10:35 am **Sample Size Considerations in Noninferiority Trials**—❖ Qi Jiang, Amgen Inc.; Steven Snapinn, Amgen Inc.

10:50 am **Determining Sample Size for Proportions When the Information on a Prognostic Factor Is Unavailable**—❖ Bong S. Kim, Neumann College

11:05 am **Sample Size Re-estimation in a Dose-Response Study**—❖ Kazuhiko Kuribayashi, Pfizer Inc.; Mike D. Smith, Pfizer Inc.

11:20 am **Sample-Size Estimation for Repeated Measures Analysis in Randomized Clinical Trials with Missing Data**—Kaifeng Lu, Merck & Co., Inc.; Xiaohui Luo, Merck & Co., Inc.; ❖ Pei-Yun Chen,

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Tuesday

Merck & Co., Inc.

11:35 am **Sample-Size Calculations in Logistic Regression: Commnets on Hsieh, Bloch, and Larsen's Method**—❖ Mohammed K. Alam, University of Cincinnati; Marepalli Rao, University of Cincinnati; Rupa Mitra, Minnesota State University

11:50 am **Extracting Information from an Ongoing Blinded Trial**—❖ Jitendra Ganju, BiostatWorks

12:05 pm **Floor Discussion**

286   CC-619
● Clinical Trial and Microarray Design—Contributed

Biometrics Section, ENAR

Chair(s): Daniel Sargent, Mayo Clinic College of Medicine

10:35 am **Adaptive Design on Adjusting Sample Size without Inflating Type I Error**—❖ Jialu Zhang, U.S. Food and Drug Administration; John Lawrence, U.S. Food and Drug Administration

10:50 am **Designs for Phase I Clinical Trials with Multiple Courses of Subjects at Different Doses**—❖ Shenghua Fan, California State University, East Bay; You-Gan Wang, CSIRO Mathematical and Information Sciences

11:05 am **Bayesian Decision-Theoretic Adaptive Designs for Clinical Trials**—❖ Yi Cheng, Indiana University South Bend

11:20 am **Use of Hadamard Matrices in Designs for Two-Color Factorial Microarray Experiments**—❖ Yu Ding, Temple University; Damaraju Raghavarao, Temple University

11:35 am **Minimax Estimation of Means in Large-Scale Experiments**—❖ Tiejun Tong, Yale University; Liang Chen, Yale University; Hongyu Zhao, Yale University

11:50 am **Tradeoffs between Power and 'Confounding' in a Small Microarray Experiment**—❖ Mary Putt, University of Pennsylvania; Thomas Cappola, University of Pennsylvania

12:05 pm **Likelihood Inference for Survival Analysis in Two-Stage Randomization Designs**—❖ Abdus Wahed, University of Pittsburgh

287   CC-618
● Statistical Methods in Assays and Cell Line

Experiments—Contributed

Biometrics Section, ENAR

Chair(s): Jayawant Mandrekar, Mayo Clinic College of Medicine

10:35 am **Evaluation Parallelism Testing Methods in Immunoassay**—❖ Lanju Zhang, MedImmune, Inc.; Harry Yang, MedImmune, Inc.; Iksung Cho, MedImmune, Inc.

10:50 am **Censored Poisson Regression with Normal Random Effects with an Application to a Dilution Assay**—❖ Jorge Quiroz, Wyeth Research; Jeffrey R. Wilson, Arizona State University

11:05 am **LD50/IC50 Estimation for in vitro Cytotoxicity**—❖ Wenquan Wang, The University of Alabama at Birmingham

11:20 am **Application of Pharmacokinetic Modeling To Guide Clinical Sample Testing**—❖ Andrew Chen, MedImmune, Inc.; Harry Yang, MedImmune, Inc.; Lanju Zhang, MedImmune, Inc.; Iksung Cho, MedImmune, Inc.; Ed O'Connor, MedImmune, Inc.

11:35 am **Error Variance Estimation with Few Replicates in Cell Line Experiments**—❖ David Jarjoura, The Ohio State University; Soledad Fernandez, The Ohio State University; Keding Hua, The Ohio State University

11:50 am **Theoretical Relationship between Direct and Indirect Potency Assays for Biological Product of Live Virus**—❖ Harry Yang, MedImmune, Inc.; Iksung Cho, MedImmune, Inc.

12:05 pm **Floor Discussion**

288   CC-620
Analysis of Imaging and Spatial Data—Contributed

Biometrics Section, ENAR

Chair(s): Diana Miglioretti, Group Health Cooperative

10:35 am **Applications of Copulas To Improve Covariance Estimation for PLS**—❖ Gina D'Angelo, University of Pittsburgh; Lisa Weissfeld, University of Pittsburgh; Scott Ziolko, University of Pittsburgh; Chester Mathis, University of Pittsburgh; William Klunk, University of Pittsburgh; Steven DeKosky, University of Pittsburgh; Julie Price, University of Pittsburgh

10:50 am **Establishing the Utility of MRI Parameters in Predicting Disease Activity in RRMS Patients Using GMDM**—❖ Welfredo R. Patungan,

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University of the Philippines; Daniel Bonzo, Serono, Inc.

11:05 am **Application of Randomized Singular Value Decomposition Techniques to the Analysis of Imaging Data Using Partial Least Squares**—❖ Scott Ziolko, University of Pittsburgh; Lisa Weissfeld, University of Pittsburgh; Chester Mathis, University of Pittsburgh; William Klunk, University of Pittsburgh; Steven DeKosky, University of Pittsburgh; Julie Price, University of Pittsburgh

11:20 am **A Comparison of Different Methods for Identifying Outliers in MRS Data**—❖ Sandra B. Hall, The University of Kansas Medical Center; Mihai Popescu, The University of Kansas Medical Center; Anda Popescu, The University of Kansas Medical Center; Niaman Nazir, The University of Kansas Medical Center; Thomas Malone, The University of Kansas Medical Center; Robin Aupperle, The University of Kansas Medical Center; Allan Schmitt, The University of Kansas Medical Center; JoAnn Lierman, The University of Kansas Medical Center; William M. Brooks, The University of Kansas Medical Center

11:35 am **A Central Limit Theorem for High-Dimensional Spatially Correlated Processes**—❖ Danielle Harvey, University of California, Davis; Qian Weng, University of California, Davis; Evan Fletcher, University of California, Davis; Charles DeCarli, University of California, Davis; Laurel Beckett, University of California, Davis

11:50 am **Image Analysis by Spatial Point Process Modeling in Irregular Area**—❖ Weimin Zhang, Texas A&M University; Suojin Wang, Texas A&M University

12:05 pm **Identifying Risk Factors for Encephalitis from West Nile Virus Infection Using Scan Statistics**—❖ Sarah Baraniuk, The University of Texas School of Public Health; Kristy Lillibridge, The University of Texas School of Public Health

289   CC-213
Robust Methods—Contributed

Section on Statistical Computing

Chair(s): H. N. Nagaraja, The Ohio State University

10:35 am **On Weighted Least Squares for Missing Data**—❖ Sergey Tarima, Medical College of Wisconsin

10:50 am **Testing Equality of Covariance Matrices When Data Are Incomplete**—❖ Mortaza Jamshidian,

California State University, Fullerton; James Schott, University of Central Florida

11:05 am **Robust Diagnostics for Multivariate Mixed Continuous and Categorical Data**—❖ Tsung-Chi Cheng, National Chengchi University; Atanu Biswas, Indian Statistical Institute

11:20 am **A Markov Chain Monte Carlo Approach for Finding the Minimum Volume Ellipsoid**—❖ J. Brian Gray, The University of Alabama; Eric B. Howington, Coastal Carolina University

11:35 am **Clustering of Outlier Structure Using Minimal Spanning Tree Rankings and Minimum Volume Ellipsoids**—❖ Mark W. Lukens, George Mason University; James Gentle, George Mason University

11:50 am **Spanning Trees as Data Analysis Tools**—❖ Adam Petrie, Rensselaer Polytechnic Institute; Thomas R. Willemain, Rensselaer Polytechnic Institute

12:05 pm **A Nonparametric Approach to Descriptive Measures of Multivariate Massive Data Based on Convex Hull Peeling Depth**—❖ Hyunsook Lee, Penn State

290   CC-605
● Analysis of Factorial Experiments—Contributed

Section on Physical and Engineering Sciences

Chair(s): Christopher Malone, Winona State University

10:35 am **Iterative Stepdown Tests: Analysis of Orthogonal Saturated Factorial Designs**—❖ Daniel Voss, Wright State University

10:50 am **Error Sum of Squares Comparison for Model Search, Identification, and Discrimination**—❖ Hongjie Deng, University of California, Riverside; Subir Ghosh, University of California, Riverside

11:05 am **Power Comparisons for Model Search, Identification, and Discrimination**—❖ Ying Luan, University of California, Riverside; Subir Ghosh, University of California, Riverside

11:20 am **A Comparison of Three Approaches to Modeling a Multivariate Response in a Designed Experiment**—❖ Steven LaLonde, Rochester Institute of Technology; Peter Bajorski, Rochester Institute of Technology

11:35 am **Bayesian Analysis of Split Plot Failure Amplification Experiments**—❖ Oksoun Yee, Schering-Plough Corporation; Robert W. Mee,

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Tuesday

University of Tennessee

11:50 am **Deriving Optimal Conditions for Large-Scale Controlled Synthesis of Nanostructures Using Statistical Methods**—❖ Tirthankar Dasgupta, Georgia Institute of Technology; Christopher Ma, Georgia Institute of Technology; Roshan J. Venghazhiyil, Georgia Institute of Technology; Zhong L. Wang, Georgia Institute of Technology; C. F. Jeff Wu, Georgia Institute of Technology

12:05 pm **Application of Two-Level Unreplicated Factorial Designs in Agricultural Field Experiments**—❖ Tessema Astatkie, Nova Scotia Agricultural College

291 CC-214
● Spline-Based Methods—Contributed
Section on Nonparametric Statistics, Biometrics Section
Chair(s): Dongfeng Wu, Mississippi State University

10:35 am **Log-Density Functional ANOVA Model Estimation and Nonparametric Graphical Model Building**—❖ Yongho Jeon, University of Wisconsin-Madison

10:50 am **Model Selection in Accelerated Failure Time Models with Nonlinear Covariate Effects**—❖ Chenlei Leng, National University of Singapore; Shuangge Ma, University of Washington

11:05 am **Efficient Polynomial Spline Estimation of Partially Linear Models for Clustered Data**—❖ Lan Xue, Oregon State University; Li Wang, Oregon State University; Lijian Yang, Michigan State University

11:20 am **Shape-Restricted Spline Regression**—❖ Xiao Wang, University of Maryland Baltimore County

11:35 am **Smoothing Spline Estimation for Skew-Symmetric Density Function**—❖ Sheng-Mao Chang, North Carolina State University; Hao Zhang, North Carolina State University

11:50 am **Multivariate Time-Dependent Spectral Analysis Using Cholesky**—❖ Ming Dai, The University of North Carolina at Charlotte; Wensheng Guo, University of Pennsylvania

12:05 pm **Bivariate Binomial Spatial Modeling of Loa loa Prevalence in Tropical Africa**—❖ Ciprian M. Crainiceanu, The Johns Hopkins University; Peter Diggle, University of Lancaster; Barry Rowlingson, University of Lancaster

292 CC-610
The Interface of Bayesian and Frequentist

Methods—Contributed
Section on Bayesian Statistical Science
Chair(s): Qingzhao Yu, The Ohio State University

10:35 am **Admissibility and Minimaxity of Generalized Bayes Estimators for Spherically Symmetric Family**—❖ Yuzo Maruyama, University of Tokyo; Akimichi Takemura, University of Tokyo

10:50 am **Adjusting Frequentist Results for Previous Information by Combining Prior and Objective Posterior Distributions**—❖ David Bickel, Pioneer Hi-Bred International, Inc.

11:05 am **Relationships between Frequentist and Bayesian Prediction Limits of the Poisson Process: Noninformative Priors**—❖ Valbona Bejleri, University of District of Columbia

11:20 am **Reconciling Bayesian and Frequentist Evidence in the One-Sided Scale Parameter Testing Problem**— ❖ Athanasios Micheas, University of Missouri-Columbia; Dipak Dey, University of Connecticut

11:35 am **Combining Bootstrap and Bayesian Inferences**— ❖ Yan Zhou, University of Michigan

11:50 am **Higher Order Semiparametric Frequentist Inference Based on the Profile Sampler**—❖ Guang Cheng, University of Wisconsin-Madison; Michael Kosorok, University of Wisconsin-Madison

12:05 pm **Floor Discussion**

Regular Contributed Posters
10:30 am–12:20 pm

293 CC-Level 6 East Lobby
Contributed Posters—Contributed
General Methodology, WNAR, Biometrics Section, Biopharmaceutical Section, Section on Statistics and the Environment, Section on Survey Research Methods
Organizer(s): Maura E. Stokes, SAS Institute, Inc.
Chair(s): Maura E. Stokes, SAS Institute, Inc.

Genetics, bioinformatics, computational biology

01 Sample Size and Power Calculations in Case-Control Designs for Detecting Gene-Environment Interaction in the Presence of Environmental Correlation—❖ Amy Murphy, Harvard School of Public Health; Peter Kraft, Harvard University

02 Examining the Multiple Dye-Swap Design for Efficient and Effective Microarray Studies—❖ Theresa Kim,

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

University of Washington

03   Using the Maximum Cross-Correlation Statistic To Find Significant Voxel-Wise Activations in fMRI Experiments—❖ Kinfemichael Gedif, Southern Methodist University; Richard F. Gunst, Southern Methodist University; Qihua Lin, Southern Methodist University; William R. Schucany, Southern Methodist University

04   Predict Gene Expression Using Logistic Regression—❖ Lei Guo, Harvard University; Yuan Yuan, Harvard University; Lei Shen, GlaxoSmithKline; Jun Liu, Harvard University

05   A Nonparametric Method of Background Correction for Microarray Data Analysis—❖ Zhongxue Chen, Southern Methodist University; Monnie McGee, Southern Methodist University; Richard Scheuermann, The University of Texas Southwestern Medical Center at Dallas

06   A Case Study for Finding Condition-Specific cis-Regulatory Motifs and Modules in the Mouse Genome—❖ Dongseok Choi, Oregon Health & Science University; Yuan Fang, Oregon Health & Science University; William Mathers, Oregon Health & Science University

07   Identifying Responder Cells in High-Content Imaging—❖ Shuguang Huang, Eli Lilly and Company; Adeline Yeo, Eli Lilly and Company

08   Simulation Study Investigating Nonrandom Recombination Events on Single Point LOD Scores—❖ Derek Blankenship, The University of Oklahoma Health Sciences Center

09   A Method for Computing the Overall Statistical Significance of a Treatment Effect among a Group of Genes—❖ Taewon Lee, National Center for Toxicological Research; Robert Delongchamp, National Center for Toxicological Research; Cruz Velasco, Louisiana State University Health Sciences Center

10   An Alternative Approach To Estimate Averages in Affymetrix Chips—❖ William R. Schucany, Southern Methodist University; Md. Jobayer Hossain, Southern Methodist University; Julia V. Kozlitina, Southern Methodist University; Kinfemichael Gedif, Southern Methodist University

11   Near-Infrared (NIR) Spectroscopy Coupled with Molecular Marker Data as a Tool for Gene Discovery—❖ Mervyn Marasinghe, Iowa State University; Paul Scott, Iowa State University/USDA-ARS

Sampling and survey methodology

12   A Matrix Approach for Comparing Estimates of a Population Total under a Many-to-Many Frame Structure—Martin Levy, University of Cincinnati; ❖ ZhiYuan Dong, University of Cincinnati

13   Comparison of Alternatives for Controlling Group Quarters Person Estimates in the American Community Survey—❖ Lynn Weidman, U.S. Census Bureau; Michael Ikeda, U.S. Census Bureau; Julie Tsay, U.S. Census Bureau

14   American Community Survey (ACS) Variance Reduction of Small Areas via Coverage Adjustment Using an Administrative Records Match—❖ Donald Malec, U.S. Census Bureau; Elizabeth Huang, U.S. Census Bureau; Jerry J. Maples, U.S. Census Bureau ; Lynn Weidman, U.S. Census Bureau

15   A Comparison of Strategies for Reducing Item Nonresponse in a Web Survey—❖ Jeffrey Kerwin, Westat; Kerry Levin, Westat; Andrew Wang, National Institute of Standards and Technology; Stephen Campbell, National Institute of Standards and Technology; Stephanie Shipp, National Institute of Standards and Technology

16   Estimating Variance of Double Sampling Using Jackknife and Bootstrap Methods—❖ Jing Wang, Sam Houston State University; Ferry Butar Butar, Sam Houston State University

Speaker with Lunch 12:30 pm–1:50 pm

294   **CC-4C-1**
Business and Economics Statistics Section Speaker with Lunch (fee event)—Speaker with Lunch

Business and Economics Statistics Section

Organizer(s): Paul Shaman, University of Pennsylvania

TL08   Housing Correction or Crash—❖ Mark McMullen, Moody's Economy. com

Roundtables with Lunch 12:30 pm–1:50 pm

295   **CC-4C-2**
Section on Bayesian Statistical Science Roundtable with Lunch (fee event)

Section on Bayesian Statistical Science

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Organizer(s): Merlise Clyde, Duke University

TL09   Objective Bayes Model Selection—❖ M. J. Bayarri, University of Valencia

296   CC-4C-2
Biopharmaceutical Section Roundtables with Lunch (fee event)

Biopharmaceutical Section

Organizer(s): Amit Bhattacharyya, GlaxoSmithKIine

TL10   Contemporary Issues in Data Monitoring Committees—❖ David Kerr, Axio Research

TL11   Controlling Error Rate in Safety Assessments from a Regulatory Perspective—❖ Qian Li, U.S. Food and Drug Administration

TL12   The Use of Targeted Designs in Clinical Trials—❖ Gerald Crans, Eli Lilly and Company; Matthew Rotelli, Eli Lilly and Company

TL13   Statistical Concerns and Methodology Regarding Cognitive and Psychomotor Endpoints in Early Development (Phase I Trials)—❖ Cynthia Gargano, Merck & Co., Inc.

TL14   Preferred Methods of Dealing with Missing Data in Clinical Trials—❖ Rukmini Rajagopalan, Abbott Laboratories

TL15   Decision Rules Based on Multiple Endpoints in Clinical Trials—❖ Alex Dmitrienko, Eli Lilly and Company

TL16   Patient-Reported Outcomes: Issues Related to the Collection and Analysis, Including Measurement Reliability and Sensitivity—❖ Tammy J. Massie, U.S. Food and Drug Administration

TL17   Statistician's Role in PK/PD Modeling and Clinical Trial Simulation—❖ Haiyuan Zhu, Merck Research Laboratories

TL18   Retrospective Testing for Baseline Variables Comparability and Subsequent Covariate Adjustments for Significant Imbalance: Good Clinical Practice or Bad Statistical Practice?—❖ Abdul Sankoh, sanofi-aventis

TL19   Statistical Issues Regarding Experimental Medicine—❖ James Bolognese, Merck Research Laboratories

TL20   Bayesian Dose-Finding Strategies for Phase I Oncology Trials—❖ Glen Laird, Novartis Pharmaceuticals Corporation

TL21   On the Evaluation of Benefit and Risk: the Tools We Have and How They Help—❖ Yili Pritchett, Eli Lilly and Company

TL22   Use of Adaptive Clinical Trial Designs in Clinical Development for Product Registration—❖ Laura Meyerson, Biogen Idec

297   CC-4C-3
Section on Statistical Consulting Roundtable with Lunch (fee event)

Section on Statistical Consulting

Organizer(s): Todd Nick, Cincinnati Children's Hospital Medical Center

TL23   Extreme Consulting: a Novel Method of Improving Efficiency of Biostatistical Analysis—❖ Daniel Byrne, Vanderbilt University

298   CC-4C-3
Section on Statisticians in Defense and National Security Roundtable with Lunch (fee event)

Section on Statisticians in Defense and National Security

Organizer(s): Lara S. Schmidt, RAND Corporation

TL24   Epidemiology and Education: Using Public Health and National Security in Statistics Education—❖ Henry Rolka, Centers for Disease Control and Prevention; Donna Stroup, Centers for Disease Control and Prevention

299   CC-4C-3
Section on Statistical Education Roundtables with Lunch (fee event)

Section on Statistical Education

Organizer(s): Patti Collings, Brigham Young University

TL25   Using Technology in the Classroom and for Distance Education—❖ Michael Speed, Texas A&M University

TL26   Teaching Introductory Statistics with (All) Sports Examples—❖ Robin Lock, St. Lawrence University

300   CC-4C-3
Section on Statistics in Epidemiology Roundtable with Lunch (fee event)

Section on Statistics in Epidemiology

Organizer(s): Jennifer Clark Nelson, Group Health Cooperative

TL27   Design and Analytic Challenges of Conducting Biomedical Research with Older Populations: Steps Toward a Gerontologic Biostatistics—❖ Peter H. Van Ness, Yale University; Heather G. Allore, Yale University

301   CC-4C-3
Section on Government Statistics Roundtables with Lunch (fee event)

Section on Government Statistics, Section on Health Policy Statistics, Committee on Gay and Lesbian Concerns in Statistics

Organizer(s): Roberta Sangster, Bureau of Labor Statistics

Tuesday

TL28 Including Sexual Orientation Questions in Surveys: Issues and Approaches—❖ Sarah Boslaugh, Washington University in St. Louis

TL29 ASA and Volunteerism: New Special-Interest Group—❖ Roberta Sangster, Bureau of Labor Statistics

302 — CC-4C-3
Section on Statistical Graphics Roundtable with Lunch (fee event)

Section on Statistical Graphics

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

TL30 Are Graphics/Interactive Graphics Useful for Getting Your Work Done?—❖ Matthias Schonlau, RAND Corporation; Martin Theus, University of Augsburg

303 — CC-4C-3
Section on Health Policy Statistics Roundtables with Lunch (fee event)

Section on Health Policy Statistics

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

TL31 The Role of Prescription Drugs in Health and Disability—❖ Michele Connolly, U.S. Social Security Administration

TL32 Peer Grouping Methodology in Hospital Profiling—❖ Chintamani Rairikar, BlueCross BlueShield of Illinois

304 — CC-4C-3
Section on Physical and Engineering Sciences Roundtable with Lunch (fee event)

Section on Physical and Engineering Sciences

Organizer(s): Winson Taam, The Boeing Company

TL33 What's the Difference between Collaborative Research and Consulting?—❖ Roger W. Hoerl, GE Global Research

305 — CC-4C-3
Section on Quality and Productivity Roundtable with Lunch (fee event)

Organizer(s): William R. Myers, Proctor & Gamble

TL34 Graphical and Numeric Approaches to Selecting Effects in Two-Level Factorial Models—❖ Wayne Adams, Stat-Ease

306 — CC-4C-3
Section on Survey Research Methods Roundtables with Lunch (fee event)

Section on Survey Research Methods

Organizer(s): Steven G. Heeringa, University of Michigan

TL35 Sharing Frame Information To Improve Coverage and Reduce Cost and Duplication of Effort—❖ Paula Weir, Energy Information Administration

TL36 Bayesian Inference for Complex Sample Surveys—❖ Roderick J. Little, University of Michigan

307 — CC-4C-3
Social Statistics Section Roundtable with Lunch (fee event)

Social Statistics Section

Organizer(s): Allen Schirm, Mathematica Policy Research, Inc.

TL37 Telephone Surveys: Where Do We Go from Here?—❖ Clyde Tucker, Bureau of Labor Statistics

Special Presentation 2:00 pm–3:50 pm

308 — CC-400
College Bowl II—Other

The ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Mark Payton, Oklahoma State University

Chair(s): Mark Payton, Oklahoma State University

Round 2 will consist of two games. Six players will advance from Round 1 to Round 2, three players going to each game. The six players will be determined by the winners of the four games, plus the two non-winning players that score the highest. The winners of the two Round 2 games will face off in the Finals. Each player will receive team points depending upon how they finish (4 points for champion, 3 points for runner up, 2 points to semifinalists not advancing, 1 point to participants not advancing to round 2). Team accumulating the most points will be declared team champion. Ties for team totals are broken by the highest average score for all members of the teams in question.

Invited Sessions 2:00 pm–3:50 pm

309 — CC-3A
● Modern Statistics at Land Grant Institutions: Memorial Session for Holly Fryer—Invited

Memorial, Section on Statistical Education

Organizer(s): Thomas M. Loughin, Kansas State University

Chair(s): Thomas M. Loughin, Kansas State University

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

2:05 pm   **The Life and Times of Holly Fryer**—❖ John E. Boyer, Kansas State University

2:30 pm   **Recent Developments on Multiplicative Interaction Models**—❖ Dallas E. Johnson, Kansas State University

2:55 pm   **Estimating Genetic Relatedness**—❖ Bruce S. Weir, University of Washington

3:20 pm   **Signals and Noises: Statistical Models Based on Fundamental Tenets of the Environmental and Ecological Sciences**—❖ Mark S. Kaiser, Iowa State University

3:45 pm   **Floor Discussion**

310   CC-602
✪ Recent Advances in Resampling Methods for Complex Data Structures—Invited

Section on Nonparametric Statistics

Organizer(s): Soumendra N. Lahiri, Iowa State University

Chair(s): Shuxia Sun, Wright State University

2:05 pm   **A Nonparametric Plug-in Rule for Smoothing Parameter Selection**—❖ Soumendra N. Lahiri, Iowa State University

2:30 pm   **A Blockwise Empirical Likelihood for Spatial Data**—❖ Daniel J. Nordman, Iowa State University

2:55 pm   **The Limit of Finite Sample Size and a Problem with Subsampling**—❖ Donald W. K. Andrews, Yale University

3:20 pm   **Unit Root Testing via the Tapered Block Bootstrap**—❖ Cameron Parker, University of San Diego; Dimitris Politis, University of California, San Diego

3:45 pm   **Floor Discussion**

311   CC-606
● ✪ Computational Challenges of Massive Datasets and Sources—Invited

Section on Statistical Computing, Section on Statisticians in Defense and National Security, Section on Statistical Graphics

Organizer(s): Karen Kafadar, University of Colorado

Chair(s): Karen Kafadar, University of Colorado

2:05 pm   **Statistical and Computational Issues Associated with Massive Public Health Databases for Detecting Adverse Events**—❖ Kathe E. Bjork, Colorado Department of Public Health and Environment

2:35 pm   **Dimension Reduction of Large Datasets in the Atmospheric Sciences**—❖ Barbara A. Bailey, University of Colorado

3:05 pm   **Automated Metadata**—Edward Wegman, George Mason University; ❖ Faleh Alshameri, George Mason University

3:35 pm   **Floor Discussion**

312   CC-4C-4
● ✪ Statistical Models in Evolutionary Biology—Invited

IMS, Biometrics Section, WNAR

Organizer(s): Christopher Genovese, Carnegie Mellon University

Chair(s): Cecile Ane, University of Wisconsin-Madison

2:05 pm   **Introductory Discussion**—❖ Christopher Genovese, Carnegie Mellon University

2:25 pm   **Mathematical Models of Speciation**—❖ Sergey Gavrilets, University of Tennessee

3:05 pm   **Fitness Value of Information**—❖ Carl Bergstrom, University of Washington; Michael Lachmann, Max Planck Institute for Mathematics in the Sciences

3:45 pm   **Floor Discussion**

313   CC-611
Biometrics Editor Invited Session —Invited

ENAR, WNAR

Organizer(s): Xihong Lin, Harvard School of Public Health; Mike Kenward, University of London

Chair(s): Naisyin Wang, Texas A&M University

2:05 pm   **Are Flexible Designs Sound?**—❖ Carl-Fredrik Burman, AstraZeneca Pharmaceuticals; ❖ Christian Sonesson, AstraZeneca Pharmaceuticals

2:45 pm   Disc: Christopher Jennison, University of Bath

2:55 pm   Disc: Michael Proschan, Biostatistics Research Branch, NIAID

3:05 pm   Disc: Peter Bauer, University of Vienna

3:15 pm   Disc: Marianne FrisÈn, Gˆteborg University

3:25 pm   **Floor Discussion**

314   CC-607
● Challenges for Early Detection of Cancer Using Genomic or Proteomic Profiles—Invited

General Methodology, Biometrics Section, WNAR, ENAR

Organizer(s): Larry G. Kessler, U.S. Food and Drug Administration

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

Chair(s): Larry G. Kessler, U.S. Food and Drug Administration

2:05 pm **Analytic Opportunities: Moving New Diagnostics to the Clinic**—❖ Robert Lipshutz, Affymetrix

2:35 pm **Platforms for the Early Detection of Cancer**—❖ Andrew Quong, Thomas Jefferson University

3:05 pm **Comparing Adaptive and Nonadaptive Algorithms for Cancer Early Detection with Novel Biomarker**—❖ Martin W. McIntosh, Fred Hutchinson Cancer Research Center

3:35 pm **Floor Discussion**

315 CC-3B
● ✪ Statistical Careers in Government Agencies—Invited

Section on Government Statistics, Section on Statistical Education

Organizer(s): John L. Eltinge, Bureau of Labor Statistics

Chair(s): Carol C. House, National Agricultural Statistics Service

2:05 pm **Growing Challenges Facing Federal Statisticians and Agencies**—❖ William G. Barron, Princeton University

2:30 pm **Recruitment, Training, and Retention of Government Statisticians**—❖ Clyde Tucker, Bureau of Labor Statistics

2:55 pm **Meeting the Challenges of Science at the Frontiers: Statistics in a Government Science Agency**—❖ Nell Sedransk, National Institute of Statistical Sciences

3:20 pm Disc: John L. Eltinge, Bureau of Labor Statistics

3:40 pm **Floor Discussion**

316 CC-203
● Multilevel Modeling of Complex Survey Data—Invited

Section on Survey Research Methods, Section on Health Policy Statistics

Organizer(s): Milorad Kovacevic, Statistics Canada

Chair(s): David Binder, Statistical Society of Canada

2:05 pm **Multilevel Modeling with Multistage Survey Samples**—❖ Tihomir Asparouhov, MuthÈn & MuthÈn; Bengt Muthen, University of California, Los Angeles

2:30 pm **Adjusting for Unequal Selection Probability in Multilevel Models: a Comparison of Software Packages**—❖ Kim Chantala, The University of North Carolina at Chapel Hill; C. M. Suchindran, The University of North Carolina at Chapel Hill

2:55 pm **Bootstrapping for Variance Estimation in Multilevel Models Fitted to Survey Data**—❖ Milorad Kovacevic, Statistics Canada; Rong Huang, Statistics Canada; Yong You, Statistics Canada

3:20 pm Disc: Michael Sverchkov, Bureau of Labor Statistics and BAE Systems IT

3:40 pm **Floor Discussion**

317 CC-610
● ✪ The Use of Quality Control Charts in Biosurveillance and Prospective Public Health Surveillance—Invited

Section on Statistics in Epidemiology, ENAR

Organizer(s): William H. Woodall, Virginia Polytechnic Institute and State University; J. MichaelHardin, The University of Alabama

Chair(s): Landon Sego, Virginia Polytechnic Institute and State University

2:05 pm **The Use of Control Charts in Health Care Monitoring and Public Health Surveillance**—❖ William H. Woodall, Virginia Polytechnic Institute and State University

2:30 pm **Cumulative Sum Methods for Spatial Surveillance**—❖ Peter A. Rogerson, University of Buffalo

2:55 pm **Performance of Residual-Based Control Charts Using Generalized Exponential Smoothing of Syndromic Data for Routine Health Surveillance**—❖ Howard S. Burkom, The Johns Hopkins University Applied Physics Laboratory; Galit Shmueli, University of Maryland; Sean Murphy, The Johns Hopkins University Applied Physics Laboratory

3:20 pm **A Neural Network Approach to Control Charts with Applications to Health Surveillance**—❖ Benjamin M. Adams, The University of Alabama; Kidakan Saithanu, The University of Alabama; J. Michael Hardin, The University of Alabama

3:45 pm **Floor Discussion**

318 CC-401
● Technometrics Invited Session—Invited

Technometrics, Section on Physical and Engineering Sciences

Organizer(s): Randy R. Sitter, Simon Fraser University

Chair(s): Randy R. Sitter, Simon Fraser University

2:05 pm **Simultaneous Variable Selection**—❖ Berwin A.

Tuesday

Turlach, The University of Western Australia; William N. Venables, CSIRO Mathematical and Information Sciences; Stephen J. Wright, University of Wisconsin-Madison

2:55 pm   **A New Strategy for Variable Selection**—Xiaohui Luo, Merck & Co., Inc.; Leonard A. Stefanski, North Carolina State University; ❖ Dennis A. Boos, North Carolina State University

3:45 pm   **Floor Discussion**

319   CC-617
● ✪ Statistical Challenges in Natural Resource Management—Invited

Section on Statistics and the Environment

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

Chair(s): Gretchen Moisen, U.S. Forest Service

2:05 pm   **Bayesian Analysis of Animal Community Structure**—❖ Jeffrey A. Royle, U.S. Geological Survey/Patuxent Wildlife Research Center

2:30 pm   **A Vision for Forest Inventory**—❖ Ronald E. McRoberts, U.S. Department of Agriculture

2:55 pm   **Challenges in Modeling Associations between Streams and Their Watersheds**—❖ John Van Sickle, U.S. Environmental Protection Agency

3:20 pm   **What Is a Realistic Fisheries Stock Assessment Model?**—❖ Terrance Quinn, University of Alaska

3:45 pm   **Floor Discussion**

Topic-Contributed Sessions
2:00 pm–3:50 pm

320   CC-613
● Beyond Your Parents' Models: Latent Variables as You May Not Yet Have Thought of Them—Topic-Contributed

Biometrics Section, ENAR

Organizer(s): Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health

Chair(s): Bradley P. Carlin, University of Minnesota

2:05 pm   **Latent Variable Mixture Modeling with Genetic Applications**—❖ Bengt Muthen, University of California, Los Angeles

2:25 pm   **Latent Variable Modeling**—❖ Katherine Masyn, University of California, Davis; Tihomir

Asparouhov, MuthÈn & MuthÈn; Bengt Muthen, University of California, Los Angeles

2:45 pm   **Semiparametric Bayesian Structural Equation Models**—❖ David B. Dunson, National Institute of Environmental Health Sciences

3:05 pm   **Penalized Latent Class Regression: Incorporating Scientific Knowledge into Measurement Models**—❖ Jeannie-Marie Sheppard, Johns Hopkins Bloomberg School of Public Health; Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health; Peter Zandi, Johns Hopkins Bloomberg School of Public Health; William Eaton, Johns Hopkins Bloomberg School of Public Health

3:25 pm   **Principal Stratification Designs To Estimate Outcomes Missing Due to Death**—❖ Constantine Frangakis, Johns Hopkins Bloomberg School of Public Health ; Donald Rubin, Harvard University; Ming-Wen An, The Johns Hopkins University

3:45 pm   **Floor Discussion**

321   CC-201
● ✪ Innovative Uses of the Survey of Income and Program Participation for Social Program Evaluation—Topic-Contributed

Social Statistics Section

Organizer(s): Carole L. Popoff, U.S. Census Bureau

Chair(s): John Czajka, Mathematica Policy Research, Inc.

2:05 pm   **Assessing the Effect of Allocated Data on the Estimated Value of Total Household Income in the Survey of Income and Program Participation (SIPP)**—❖ Patricia Fisher, U.S. Census Bureau

2:25 pm   **Welfare Reform Revisited: Leavers and Cyclers—How Are They Doing under the New Restrictive Time Limits?**—❖ Carole L. Popoff, U.S. Census Bureau; Qi Wang, U.S. Census Bureau

2:45 pm   **Assessing Estimates of Program Participation: an Analysis of Matched SIPP and Administrative Data**—❖ Scott Cody, Mathematica Policy Research, Inc.; Julie Sykes, Mathematica Policy Research, Inc.

3:05 pm   **Accounting for SIPP Design Effects: Testing Four Approaches with the 2004 Panel**—❖ Arthur F. Jones, U.S. Census Bureau; Robert Nielsen, U.S. Census Bureau; Michael Davern, University of Minnesota; John Boies, U.S. Census Bureau

3:35 pm   Disc: John Boies, U.S. Census Bureau

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

3:45 pm   **Floor Discussion**

322   CC-608
POC/Adaptive Design—Topic-Contributed
Biopharmaceutical Section

Organizer(s): James Bolognese, Merck Research Laboratories

Chair(s): James Bolognese, Merck Research Laboratories

2:05 pm   **Impact of Pharmacometrics Reviews on Drug Approval and Labeling Decisions**—❖ Joga Gobburu, U.S. Food and Drug Administration

2:25 pm   **Adaptive by Design in Exploratory Development**—❖ Brenda Gaydos, Eli Lilly and Company

2:45 pm   **Comparison of Bayesian and Frequentist Adaptive Designs for Combination Proof-of-Concept/Dose Response Modeling Trials in Phase II**—❖ Nitin Patel, Cytel Inc.; James Bolognese, Merck Research Laboratories; Jerald Schindler, Cytel Inc.; Scott Berry, Berry Consultants; Yannis Jemiai, Cytel Inc.; Vipul Suru, Cytel Inc.

3:05 pm   **Bayesian Modeling of Safety Data Using Databases of Placebo Patients**—❖ Jose Pinheiro, Novartis Pharmaceuticals Corporation; Chyi-Hung Hsu, Novartis Pharmaceuticals Corporation

3:25 pm   Disc: Sue-Jane Wang, U.S. Food and Drug Administration

3:45 pm   **Floor Discussion**

323   CC-205
● Quality Initiatives in Establishment Surveys—Topic-Contributed
Section on Survey Research Methods

Organizer(s): Shawna Waugh, Energy Information Administration

Chair(s): Nicolas Hengartner, Los Alamos National Laboratory

2:05 pm   **A Methodology for Evaluating Sufficiency of Survey Frames**—❖ Howard Bradsher-Fredrick, Energy Information Administration

2:25 pm   **An Evaluation of the 2002 MECS Measure of Size**—❖ William Gifford, Energy Information Administration

2:45 pm   **Nonresponse Bias Analysis of the Survey of Workplace Violence Prevention**—❖ Kathy Downey, Bureau of Labor Statistics; Kelley Frampton, Bureau of Labor Statistics; William McCarthy, Bureau of Labor Statistics

3:05 pm   **Quality Issues in a Regulatory Data Collection**

System—❖ Alan K. Jeeves, Bureau of Transportation Statistics

3:25 pm   Disc: Eugene Burns, Bureau of Transportation Statistics

3:45 pm   **Floor Discussion**

324   CC-214
✪ Statistical Methods on Networks and Graphs—Topic-Contributed
Section on Statisticians in Defense and National Security, Section on Statistical Graphics

Organizer(s): Patricia H. Carter, Naval Surface Warfare Center

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

2:05 pm   **Graphs for Streaming Text**—❖ Elizabeth Hohman, Naval Surface Warfare Center

2:25 pm   **Graph Theoretic Methods for the Identification of Article Associations**—❖ Jeffrey L. Solka, Naval Surface Warfare Center; Avory Bryant, Naval Surface Warfare Center; Nicholas Tucey, Naval Surface Warfare Center

2:45 pm   **Anomaly Detection in Genetic Networks**—❖ Christopher Overall, ; Jeffrey L. Solka, Naval Surface Warfare Center; J. W. Weller, George Mason University; Carey Priebe, The Johns Hopkins University

3:05 pm   **Network Traffic Profiling**—❖ Patricia H. Carter, Naval Surface Warfare Center

3:25 pm   Disc: John Rigsby, Naval Surface Warfare Center

3:45 pm   **Floor Discussion**

325   CC-2B
✪ Spatial and Spatio-Temporal Bayesian Inference—Topic-Contributed
Section on Bayesian Statistical Science

Organizer(s): Michele Guindani, M. D. Anderson Cancer Center

Chair(s): Christopher Carter, University of New South Wales

2:05 pm   **Multivariate Spatial Modeling in Bayesian Hierarchical Settings**—❖ Sudipto Banerjee, University of Minnesota

2:25 pm   **Flexible Spatial Modeling for Multivariate Geological Data Using Convolved Covariance Functions**—❖ Anandamayee Majumdar, Arizona State University; Alan E. Gelfand, Duke University

2:45 pm   **Gaussian Process Models for a Sphere with Application to Faraday Rotation Measures**—❖ Margaret Short, Los Alamos National Laboratory;

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Dave Higdon, Los Alamos National Laboratory; Philipp Kronberg, Los Alamos National Laboratory

3:05 pm **A Comprehensive Spatial-Temporal Analysis of Breast Cancer: First Primary, Second Primary, and Breast Cancer Survival**—❖ Song Zhang, M. D. Anderson Cancer Center

3:25 pm **Bayesian Nonparametric Mixture Modeling for Spatial Processes**—❖ Michele Guindani, M. D. Anderson Cancer Center; Alan E. Gelfand, Duke University; Sonia Petrone, Universit‡ Commerciale Luigi Bocconi

3:45 pm **Floor Discussion**

326   CC-604
Least Angle Regression—Topic-Contributed
Section on Statistical Computing

Organizer(s): Tim C. Hesterberg, Insightful Corporation

Chair(s): Trevor Hastie, Stanford University

2:05 pm **New Methods and Software for Variable Selection in Regression**—❖ Chris Fraley, Insightful Corporation; Tim C. Hesterberg, Insightful Corporation

2:25 pm **Penalized Cox Regression Analysis in the High-Dimensional and Low Sample Size Settings with Application to Microarray Gene Expression Data**—❖ Jiang Gui, University of Pennsylvania; Hongzhe Li, University of Pennsylvania

2:45 pm **Grouped and Hierarchical Model Selection through Composite Absolute Penalties (CAPs)**—❖ Guilherme Rocha, University of California, Berkeley; Peng Zhao, University of California, Berkeley; Bin Yu, University of California, Berkeley

3:05 pm **Determination of Regularization Parameter Using L-Curve by LARS-LASSO Algorithm**—❖ Leming Qu, Boise State University; Partha Routh, Boise State University

3:25 pm Disc: Greg Ridgeway, RAND Corporation

3:45 pm **Floor Discussion**

327   CC-211
Proper Compensation for Statistical Consulting Services Provided in a University Setting—Topic-Contributed
Section on Statistical Consulting, Section on Statistical Education

Organizer(s): H. DeanJohnson, Washington State University

Chair(s): H. DeanJohnson, Washington State University

2:05 pm **Successes (and Challenges) in Funding Campus Consulting Facilities**—❖ Murray Clayton, University of Wisconsin-Madison

2:25 pm **An Overview of The Ohio State University Statistical Consulting Service**—❖ Christopher Holloman, The Ohio State University

2:45 pm **Multiple Solutions to Funding Statistical Consulting within a University**—❖ Linda Young, University of Florida

3:05 pm **Compensation Is More Than Money: Life as an Internal Statistical Consultant in a Medical School**—❖ Sarah Boslaugh, Washington University in St. Louis

3:25 pm Disc: Barbara Mann, Wright State University

3:45 pm **Floor Discussion**

Regular Contributed Sessions
2:00 pm–3:50 pm

328   CC-612
● ✪ Approaches for Handling Missing Data and Measurement Issues—Contributed
Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Betsy Gunnels, Centers for Disease Control and Prevention

2:05 pm **Missingness Screens and Regression Modeling in Clinical Aging Research**—❖ Peter H. Van Ness, Yale University

2:20 pm **Deletion Approach To Handle Missing Data in Longitudinal Data**—❖ Cuiling Wang, Albert Einstein College of Medicine; Myunghee C. Paik, Columbia University

2:35 pm **Impact of Missing Data on Building Prognostic Models and Summarizing Models across Studies**—❖ Mahtab Munshi, Takeda Global Research and Development Center; Daniel McGee, Sr. , Florida State University

2:50 pm **Using Multiple Imputation To Improve Race-Specific Disease Rate Reporting in a National Active Surveillance System**—❖ Elizabeth R. Zell, Centers for Disease Control and Prevention

3:05 pm **Efficacy Studies of Malaria Treatments in Africa: Efficient Estimation with Missing Indicators of Failure**—❖ Rhoderick Machekano, ; Alan

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Hubbard, University of California, Berkeley

3:20 pm **Application of Errors-in-Variables to Model Variation between Studies in Regression Equations for GFR**—❖ Tom Greene, The Cleveland Clinic; Liang Li, The Cleveland Clinic

3:35 pm **Dose-Response Errors and Detection of Biological Thresholds**—❖ Michael E. Ginevan, Exponent, Inc.; Deborah K. Watkins, Exponent, Inc.

329   CC-204
● Mode Considerations—Contributed
Section on Survey Research Methods

Chair(s): Sarah M. Nusser, Iowa State University

2:05 pm **Color, Labels, and Interpretive Heuristics for Response Scales**—❖ Roger Tourangeau, University of Maryland; Mick Couper, University of Michigan; Frederick G. Conrad, Institute for Social Research

2:20 pm **Efficient Multimode Data Collection**—❖ David Dolson, Statistics Canada

2:35 pm **Improved Evaluation of the Quantitative Survey Response Variance**—❖ Patrick Flanagan, U.S. Census Bureau

2:50 pm **Comparing performance and self-reported data on ease of use of surveys**—❖ Christine Rho, Bureau of Labor Statistics

3:05 pm **Estimation of Measurement Error and Identification of Causes in the Absence of Validation Data**—❖ Andy Peytchev, University of Michigan

3:20 pm **An Alternative Estimator for Multi-Frame Sample Designs**—❖ Charles D. Palit, University of Wisconsin

3:35 pm **Is There a Homogeneity in Value Orientations within European Societies?**—❖ Peter P. Mohler, ZUMA

330   CC-2A
● ✪ Bayesian Methods in the Social Sciences—Contributed
Section on Bayesian Statistical Science

Chair(s): Sanjib Basu, Northern Illinois University

2:05 pm **Latent Space Models for Irish Voting Data**—❖ Isobel Claire Gormley, Trinity College Dublin; Thomas B. Murphy, Trinity College Dublin

2:20 pm **A Bayesian Approach to Correct Sample Selection**

Bias in Hierarchical Linear Models—❖ Jun Lu, American University; Labeed Mokatrin, American University

2:35 pm **Exploring Teacher by Student Interactions in Longitudinal Achievement Data**—❖ J. R. Lockwood, RAND Corporation; Daniel McCaffrey, RAND Corporation

2:50 pm **An Item Response Model for Balancing Personalization and Privacy in Online Browsing**—❖ Steven L. Scott, University of Southern California; Ramnath Chellappa, Emory University

3:05 pm **Modeling Student Ability in Low-Stakes Settings**—❖ Eric Loken, Penn State

3:20 pm **A Bayesian Approach to the Calibration of New Test Items**—❖ Tiandong Li, Westat; Chinfang Wong, University of Maryland; Ru Lu, University of Maryland

3:35 pm **Floor Discussion**

331   CC-618
Distribution and Robustness Theory—Contributed
IMS, Section on Nonparametric Statistics

Chair(s): Debashis Mondal, University of Washington

2:05 pm **A New Approach to Robust Parameter Estimation against Heavy Contamination**—❖ Hironori Fujisawa, The Institute of Statistical Mathematics

2:20 pm **Minimax Asymptotic Mean-Squared-Error of L-estimators of Scale Parameter**—❖ Daniela Szatmari-Voicu, The University of Texas at El Paso

2:35 pm **Order Statistics of Concomitants of Subsets of Order Statistics and Applications**—❖ Ke Wang, The Ohio State University; H. N. Nagaraja, The Ohio State University

2:50 pm **Power Transformation Toward a Linear Regression Quantile**—❖ Yunming Mu, Texas A&M University

3:05 pm **Duality Between Matrix Variate -t and Matrix Variate V. G. Distributions**—❖ Solomon W. Harrar, South Dakota State University; Eugene Seneta, University of Sydney; Arjun K. Gupta, Bowling Green State University

3:20 pm **Some Moment Relationships for Skew-Symmetric Distributions**—❖ Dale Umbach, Ball State University

3:35 pm **On the Decomposition of the Skew-Symmetric**

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

Family of Probability Distributions—❖ Jose A. Sanqui, Appalachian State University; Arjun K. Gupta, Bowling Green State University; Truc T. Nguyen, Bowling Green State University

332   CC-210
Estimation for Government Data Collection—Contributed
Section on Government Statistics

Chair(s): Frank Potter, Mathematica Policy Research, Inc.

2:05 pm   **New Models for Estimating Health Insurance Coverage for Small Areas**—❖ Donald M. Bauder, U.S. Census Bureau

2:20 pm   **Small-Area Estimation of Health Insurance Coverage at the Sub-State Level: a Hierarchical Bayes Model**—❖ Steven Riesz, U.S. Census Bureau; Robin Fisher, U.S. Census Bureau

2:35 pm   **Estimation of standardized state-level food stamp participation rates**—❖ Elizabeth Stuart, Mathematica Policy Research, Inc.; Allen Schirm, Mathematica Policy Research, Inc.; Alan M. Zaslavsky, Harvard Medical School; Laura Castner, Mathematica Policy Research, Inc.; Scott Cody, Mathematica Policy Research, Inc.

2:50 pm   **Estimating School District Poverty with Free and Reduced Priced Lunch Data**—❖ Craig Cruse, U.S. Census Bureau; David S. Powers, U.S. Census Bureau

3:05 pm   **An Analysis of Gender Differences in Vehicles Miles Traveled Using Nonparametric Methods**—❖ Brian Sloboda, Bureau of Transportation Statistics; Wenxiong V. Yao, University of Arkansas at Little Rock

3:20 pm   **Improved Preliminary Estimation of Total Employment Change for the U.S. Current Employment Statistics Survey**—❖ Bogong Li, Bureau of Labor Statistics; Partha Lahiri, University of Maryland

3:35 pm   **Analysis of Recall Effect on the Reporting of Expenditures for the Consumer Expenditure Interview Survey**—❖ Barry Steinberg, Bureau of Labor Statistics; Boriana Chopova, Bureau of Labor Statistics; Lucilla Tan, Bureau of Labor Statistics; Jared Ogden, Bureau of Labor Statistics; Pierre Bahizi, Bureau of Labor Statistics; Geoffrey Paulin, Bureau of Labor Statistics

333   CC-206
● New Approaches to Modeling Costs and Other Health Outcomes—Contributed
Section on Health Policy Statistics, Biometrics Section

Chair(s): Mark Glickman, Boston University

2:05 pm   **Performance of statistical models to predict mental health and substance abuse cost**—❖ Maria Montez, Boston University; Cindy Christiansen, Boston University; Susan L. Ettner, University of California, Los Angeles; Susan Loveland, Boston University; Amy K. Rosen, Boston University

2:20 pm   **Use of Risk-Adjustment Models To Predict Future High Medical Cost Cases: Is the Model Performance Sensitive to the Time Intervals in Claims Data?**—❖ Ya-Chen Tina Shih, M. D. Anderson Cancer Center; Lirong Zhao, M. D. Anderson Cancer Center; Ying Xu, M. D. Anderson Cancer Center

2:35 pm   **Two-stage Samples and the Minimum Sum Method for Medicare Fraud Investigations**—❖ Iliana Ignatova, University of South Carolina

2:50 pm   **Experiences with a Virtual Regionalization Model for Cardiac Surgery**—❖ Edward Wegman, George Mason University; Yasmin H. Said, The Johns Hopkins University; Shabib A. Alhadheri, SUNY Upstate Medical University

3:05 pm   **The LASSO-Patternsearch Algorithm and Its Application to Data from the Beaver Dam Eye Study**—❖ Weiliang Shi, University of Wisconsin-Madison; Grace Wahba, University of Wisconsin-Madison; Kristine Lee, University of Wisconsin-Madison; Ronald Klein, University of Wisconsin-Madison; Barbara E. K. Klein, University of Wisconsin-Madison

3:20 pm   **On the Equivalence of Medical Cost Estimators with Censored Data**—Heejung Bang, Cornell University; ❖ Hongwei Zhao, University of Rochester; Phillip E. Pfeifer, University of Virginia; Hongkun Wang, University of Virginia

3:35 pm   **Floor Discussion**

334   CC-620
✪ Degradation Models and Other Topics in Reliability—Contributed
Section on Physical and Engineering Sciences

Chair(s): Jave Pascual, Washington State University

GENERAL PROGRAM SCHEDULE

✿ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Tuesday

2:05 pm **A Statistical Method for Crack Detection in Thermal Acoustics Nondestructive Evaluation Data**—❖ Chunwang Gao, Iowa State University; William Q. Meeker, Jr., Iowa State University

2:20 pm **Estimation of Flaw Size Distribution Parameters under Correlated Random Censoring**—❖ Peter Hovey, University of Dayton; Alan Berens, Retired

2:35 pm **Modeling Unit Degradation from Exceedance Time Data**—❖ Hui Fan, Rensselaer Polytechnic Institute; Brock Osborn, GE Global Research; Thomas R. Willemain, Rensselaer Polytechnic Institute; Pasquale Sullo, Rensselaer Polytechnic Institute

2:50 pm **A Discrete Degradation Model for Ultra-Thin Gate Oxide Data**—❖ Shuen-Lin Jeng, Tunghai University; Min-Hsiung Hsien, Tunghai University

3:05 pm **Bayesian Degradation Modeling With Covariate-Dependent Box-Cox Transformation of the Response Variable**—❖ Fridtjof Thomas, VTI; Arzu Onar, St. Jude Children's Research Hospital; Bouzid Choubane, Florida Department of Transportation; Tom Byron, Florida Department of Transportation

3:20 pm **System Reliability Prediction**—❖ Wai Chiu, Los Alamos National Laboratory; Arthur P. Dempster, Harvard University

3:35 pm **Recurrent Events: Modeling and Inference**—❖ Edsel A. Pena, University of South Carolina

335 CC-601

● **Classification Methods and Functional Data Analysis—Contributed**

Section on Nonparametric Statistics

Chair(s): Martina Pavlicova, Columbia University

2:05 pm **Scrambling Method for Cluster Analysis Using Supervised Learning**—❖ Oksana Shcherbak,

2:20 pm **Finding an Approximate Solution Path of Support Vector Machines for Large Datasets**—❖ Zhenhuan Cui, ; Yoonkyung Lee, The Ohio State University

2:35 pm **Bandwidth Selection for RBF Kernel in Kernel-Based Classification**—❖ Jeongyoun Ahn, The University of North Carolina at Chapel Hill

2:50 pm **Multivariate Functional ANOVA for Kriging Model in Computer Experiments**—❖ Zhe Zhang, Penn State

3:05 pm **Bootstrap Investigation of the Median Curve of**

a Functional Dataset—❖ David B. Hitchcock, University of South Carolina

3:20 pm **Analysis of Panic-Relevant Experimental Tidal Volume Curves: Wavelet-Based Functional Hypothesis Testing**—❖ Sang Han Lee, Texas A&M University; Marina Vannucci, Texas A&M University; Eva Petkova, Columbia University; Maurice Preter, Columbia University; Donald Klein, Columbia University

3:35 pm **Floor Discussion**

336 CC-605

Categorical Data and Experimental Design—Contributed

Section on Statistical Computing

Chair(s): Zenaida F. Mateo, University of Manitoba

2:05 pm **A Simple Method for Generating Multivariate Categorical Variates**—❖ Hyunjip Choi, Kyonggi University

2:20 pm **Testing Multinomial Categories with Sequential Sampling: Is a Wheel of Fortune Fair?**—❖ Hokwon Cho, University of Nevada, Las Vegas; Hai Zhen, University of Nevada, Las Vegas

2:35 pm **A Comparison of Approximations for Logistic Regression**—❖ Charity J. Morgan, Harvard University; Donald Rubin, Harvard University

2:50 pm **Construction Methods for Balanced Incomplete Block Designs**—❖ Jeffrey Shaffer, Tulane University; Sudesh Srivastav, Tulane University

3:05 pm **Asymptotic Properties of Effective Experimenting Strategies**—❖ Anatoly Naumov, Novosibirsk State Technical University

3:20 pm **Misspecification Tests for Binomial and Beta-Binomial Models**—❖ Marinela Capanu, Memorial Sloan-Kettering Cancer Center; Brett Presnell, University of Florida

3:35 pm **Floor Discussion**

337 CC-212

● **Teaching Statistics to Specific Audiences—Contributed**

Section on Statistical Education, Section on Statistical Graphics

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

2:05 pm **Teaching Effective Graph and Table Construction Needs More Attention in Statistical Education**—❖ Thomas E. Bradstreet, Merck Research

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Laboratories; Michael Nessly, Merck Research Laboratories; Thomas H. Short, Indiana University of Pennsylvania

2:20 pm   **What Do M&Ms, Dahlias, Soil Erosion, and Data Analysis across the Curriculum Have in Common?**—❖ Jerry Moreno, John Carroll University

2:35 pm   **Instructional Tools in Educational Measurement and Statistics (ITEMS) for School Personnel: Evaluation of Two Web-Based Training Modules**—❖ Rebecca Zwick, University of California, Santa Barbara; Jeffrey C. Sklar, California Polytechnic State University, San Luis Obispo; Graham Wakefield, University of California, Santa Barbara

2:50 pm   **Interactive animation for learning IRT and misfit identification in Item Response Theory**—❖ Chong Ho Yu, Arizona State University; Roger Freeman, Paradise Valley Unified School District; Angel Jannasch-Pennell, Arizona State University; Samuel DiGangi, Arizona State University; Chang Kim, Arizona State University; Victoria Stay, Arizona State University; Wenjuo Lo, Arizona State University; Lori Long, Arizona State University

3:05 pm   **An Education Model for Secondary Students**—John Aleong, University of Vermont; ❖ Chandra Aleong, Delaware State University

3:20 pm   **A Pilot Survey on Ways Practicing Engineers Learn Statistics**—❖ Jorge Romeu, Syracuse University

3:35 pm   **Presenting Statistics Online to Nontraditional Business Students**—❖ William Livingston, Baker College Center for Graduate Studies

338   CC-213
● **Innovative Approaches to Introductory Statistics—Contributed**
Section on Statistical Education
Chair(s): James Grady, The University of Texas Medical Branch

2:05 pm   **Statistics: Telling the Whole Story**—❖ Nancy Pfenning, University of Pittsburgh

2:20 pm   **Teaching a Writing-centered Course in Introductory Statistics**—❖ Deborah Lurie, Saint Joseph's University

2:35 pm   **Assessing the Gains from Concept Mapping in Introductory Statistics**—❖ David Doorn, University of Minnesota, Duluth; Maureen O'Brien, University of Minnesota, Duluth

2:50 pm   **Further Assessment of Materials for Engaging Students in Statistical Discovery**—❖ W. Robert Stephenson, Iowa State University; Amy Froelich, Iowa State University; William M. Duckworth, Iowa State University

3:05 pm   **Sequencing of Topics in an Introductory Course: Does Order Make a Difference?**—❖ Christopher Malone, Winona State University; John Gabrosek, Grand Valley State University

3:20 pm   **A Geometrical Approach to Introductory Statistics**—❖ Daniel Kaplan, Macalester College

3:35 pm   **Toward Statistical Literacy: Statistics in Everyday Life**—❖ Hoke Hill, Jr., Clemson University; William Bridges, Jr., Clemson University; Rose Martinez-Dawson, Clemson University

339   CC-603
Regression and Time Series—Contributed
Section on Statistical Computing
Chair(s): Brian Gray, The University of Alabama

2:05 pm   **Automatic Detection of Outliers Based on the Forward Search**—Matilde Bini, University of Florence; Bruno Bertaccini, University of Florence; ❖ Franco Polverini, University of Florence

2:20 pm   **A Novel Statistical Approach to Identifying and Limiting the Effect of Influential Observations**—❖ Tamekia Jones, The University of Alabama at Birmingham; David Redden, The University of Alabama at Birmingham

2:35 pm   **Robust Winsorized Regression Using Bootstrap Approach**—Deo Kumar Srivastava, St. Jude Children's Research Hospital; ❖ Jianmin Pan, St. Jude Children's Research Hospital; Ila Sarkar, Louisiana Health Care Review, Inc.

2:50 pm   **Bent-Cable Regression with Autoregressive Noise**—❖ Grace Chiu, University of Waterloo; Richard Lockhart, Simon Fraser University

3:05 pm   **Multiresolution Outlier Detection for Long-Range Dependent Time Series**—❖ Lingsong Zhang, The University of North Carolina at Chapel Hill; Zhengyuan Zhu, The University of North Carolina at Chapel Hill

3:20 pm   **Restricted Error Regression**—❖ James Cochran, Louisiana Tech University

3:35 pm   **Local Linear Estimation for Single-index Conditional Quantiles**—❖ Zhou Wu, University

GENERAL PROGRAM SCHEDULE

✿ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

of Cincinnati; Yan Yu, University of Cincinnati; Keming Yu, Brunel University

340   CC-614
● Misclassification and Measurement Error: Problems and Solutions—Contributed
Biometrics Section, ENAR

Chair(s): Tom Braun, University of Michigan

2:05 pm   **Measurement Error Correction Methods Based on Cumulative Average Intake for Nutritional Data**—❖ Weiliang Qiu, Harvard Medical School; Bernard Rosner, Harvard Medical School

2:20 pm   **A Robust Likelihood-Based Approach to Nonlinear Measurement Error Models with Application to Radiation Dose Effects on Leukemia-Specific Hazard Rate among A-Bomb Survivors**—❖ Antara Majumdar, University at Buffalo; Randy L. Carter, University at Buffalo

2:35 pm   **Varying Coefficient Model with Measurement Error**—❖ Liang Li, The Cleveland Clinic; Tom Greene, The Cleveland Clinic

2:50 pm   **Conditional Score Methods for Regression Models with Poisson Surrogates**—❖ Alvin Van Orden, ; Leonard A. Stefanski, North Carolina State University

3:05 pm   **Effects of Misclassification on Exposure-Disease Association with Odds Ratio**—❖ Jun-mo Nam, National Cancer Institute

3:20 pm   **Adjusting for Misclassification in Binary Response Variables**—❖ Jun Zhai, Duke University; John Olson, Duke University; Mike West, Duke University

3:35 pm   **Floor Discussion**

341   CC-609
● QT/QTc—Contributed
Biopharmaceutical Section

Chair(s): Yun-Ling Xu, FDA

2:05 pm   **Noninferiority Testing in Thorough QT/QTc Studies**—❖ Balakrishna Hosmane, Northern Illinois University; Charles Locke, Abbott Laboratories

2:20 pm   **Bias in Estimates of QTc Prolongation by Timepoint-Wise Treatment Comparison**—❖ Yibin Wang, Novartis Pharmaceuticals Corporation; Guohua Pan, Johnson & Johnson Pharmaceutical

R&D

2:35 pm   **Tolerance Regions for Multivariate Random Effects Model with Application to Beat-to-Beat QT-TQ Interval Data**—❖ Kimberly Crimin, Pfizer Inc.; Joseph McKean, Western Michigan University

2:50 pm   **A New Method for Sample Size Calculation of the Thorough QT/QTc Study**—❖ Shu Zhang, Sepracor, Inc.

3:05 pm   **Bayesian Measurement Error Approach to QT Interval Correction/Prolongation**—❖ Jie Chen, Merck Research Laboratories; Xin Zhao, Merck & Co., Inc.

3:20 pm   **Designing and Analyzing Covariate-Adjusted Response Adaptive Randomized Clinical Trials**—❖ Ayanbola Ayanlowo, The University of Alabama at Birmingham; David Redden, The University of Alabama at Birmingham

3:35 pm   **Floor Discussion**

342   CC-615
● Methods for Design and Analysis of Microarrays—Contributed
Biometrics Section, ENAR

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

2:05 pm   **Detecting Differential Expressions in GeneChip Microarray Studies: a Quantile Approach**—❖ Huixia Wang, University of Illinois at Urbana-Champaign

2:20 pm   **Gene Selection Using a Modified Mahalanobis Distance**—❖ Xiwen Ma, University of Wisconsin-Madison

2:35 pm   **Analysis of Microarray Data: Two Examples**—❖ Meng Du, University of Toronto; Muni Srivastava, University of Toronto

2:50 pm   **Multidimensional Local False Discovery Rate for Microarray Studies**—❖ Yudi Pawitan, Karolinska Institutet; Alex Ploner, Karolinska Institutet

3:05 pm   **Optimal Cross-Validation for Estimating Small Sample Classification Error Rate**—❖ Wenjiang Fu, Michigan State University; Suojin Wang, Texas A&M University

3:20 pm   **Gene Expression (Microarray) Analysis by Neural Networks**—❖ David Booth, Kent State University; David Zhu, Kent State University; Richard Geoke, Kent State University; David Baker, Kent State University; James Hamburg, Kent State University

3:35 pm   **Floor Discussion**

343   CC-616
● Analysis of Correlated Data and Mixed Models—Contributed
Biometrics Section

Chair(s): Jon Schildcrout, Vanderbilt University Medical Center

2:05 pm   **Regression Analysis of Panel Count Data with Dependent Observation Times**—❖ Xin He, University of Missouri-Columbia; Jianguo Sun, University of Missouri-Columbia; Xingwei Tong, University of Missouri-Columbia

2:20 pm   **Modellng Variability in Longitudinal Data Using Random Changepoint Models**—❖ Annica Dominicus, Karolinska Institutet; Samuli Ripatti, Karolinska Institutet; Juni Palmgren, Karolinska Institutet

2:35 pm   **Semiparametric Modeling with Correlated Data**—❖ Chun Han, The University of Kansas

2:50 pm   **Marginal Mixture Analysis of Correlated Bounded-Response Data with an Application to Ultrasound Risk Assessment**—❖ Yan Yang, University of Illinois at Urbana-Champaign; Douglas Simpson, University of Illinois at Urbana-Champaign

3:05 pm   **On the Analysis of Mouse Preference Data**—❖ Yang Yang, University of Western Ontario; Willard J. Braun, University of Western Ontario

3:20 pm   **Equality of REML and ANOVA Estimators of Variance Components in Unbalanced Models**—❖ Shaun Wulff, University of Wyoming

3:35 pm   **Measuring the Mean Squared Error of the EBLUP in Linear Mixed Models**—❖ Jamie McClave Baldwin, Info Tech, Inc.; Ramon Littell, University of Florida

344   CC-619
● ✪ Quality Applications and Approaches—Contributed
Section on Quality and Productivity, Section on Physical and Engineering Sciences

Chair(s): Jennifer Van Mullekom, DuPont Quality Management and Technology

2:05 pm   **Economic Decisionmaking Challenges in Quality Applications**—❖ John Barrett, University of North Alabama

2:20 pm   **Methods of Data Quality**—❖ Thomas Herzog, U.S. Department of Housing and Urban Development; William E. Winkler, U.S. Census Bureau; Fritz J. Scheuren, NORC

2:35 pm   **Quality Techniques in the Mill Benefit Young Trees in the Field**—❖ Bonnie P. Dumas, MeadWestvaco Corporation

2:50 pm   **Interlaboratory Study of DEA Proficiency Test Using RExcel**—❖ Hung-kung Liu, National Institute of Standards and Technology; Adriana Hornikova, National Institute of Standards and Technology

3:05 pm   **Statistical Data Processing of GC-MS Data**—❖ Shiying Wu, RTI International; Jun Liu, Research Triangle Institute; Robert J. Morris, RTI International; James Raymer, RTI International; Ye Hu, RTI International; Larry Michael, RTI International

3:20 pm   **Dynamic Calibration for Instruments**—❖ Charles Hagwood, National Institute of Standards and Technology

3:35 pm   **Floor Discussion**

Regular Contributed Posters
2:00 pm–3:50 pm

345   CC-Level 6 East Lobby
Contributed Posters—Contributed
Section on Physical and Engineering Sciences, Section on Statistics in Epidemiology, Section on Statistics and the Environment, Biopharmaceutical Section, Business and Economics Statistics Section, Section on Statistical Computing, IMS, Section on Survey Research Methods

Organizer(s): Maura E. Stokes, SAS Institute, Inc.

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Engineering and physical sciences, chemometrics

01   A Monte Carlo Method To Simulate the Stochastic Behavior of a Field of Forces—❖ Elizabeth Martinez Gomez, National Autonomous University of Mexico; Hector A. Perez de Tejada Jaime, National Autonomous University of Mexico ; Hector J. Durand Manterola, National Autonomous University of Mexico

02   Examples of Estimating Confidence Intervals for the Arithmetic Means of Lognormally Distributed Data from Mixed or Random Effects Linear Models—❖ Stanley Shulman, National Institute for Occupational Safety and Health

03   Statistical Design of Computer Experiments for a 3D

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Chemical Microanalysis Imaging System—❖ Juan Soto, National Institute of Standards and Technology; James J. Filliben, National Institute of Standards and Technology; John H. Scott, National Institute of Standards and Technology

Environmetrics, ecology, agriculture, wildlife management

04   A Spatio-Temporal Model for Estimating Diameter of Taiwan Cryptomerioides under Different Planting Densities—Hsing-Yi Chang, CHPRD, NHRI; ❖ Yu-Wen Wen, CHPRD, NHRI

05   A Study of the Type I and Type II Error Rates of Tests for Species Diversity Based on Shannon and Simpson's Indexes of Diversity—❖ Lewis VanBrackle, Kennesaw State University; Kristina Corts, Kennesaw State University

06   Projecting the Risk of Future Climate Shifts—❖ Luis Cid, Universidad de ConcepciÛn; David B. Enfield, NOAA

Experimental design

07   Equivalence of Fractional Factorial Designs—❖ Tena Katsaounis, The Ohio State University; Angela Dean, The Ohio State University

08   The Oklahoma Oral Health Needs Assessment: Comparison of Sampling Methods Using Monte Carlo Simulations—❖ Emily Leary, The University of Oklahoma Health Sciences Center

09   Design of Experiments for Parameter Estimation in Compartmental Models—❖ Michael DeVasher, The University of Alabama; J. Michael Hardin, The University of Alabama

Spatial statistics, time series, spatio-temporal modeling

14   A MATLAB Software Implementation for Time-Series Analysis by State-Space Methods—❖ Jyh-Ying Peng, Academia Sinica; John Aston, Academia Sinica

15   An Interpolated Periodogram-Based Metric for Comparison of Time Series with Unequal Lengths—❖ Jorge Caiado, CEMAPRE/ISEG and IPS; Nuno Crato, CEMAPRE/Technical University of Lisbon; Daniel PeÒa, Universidad Carlos III de Madrid

16   Recent Developments in Seasonal Adjustment Software at the U.S. Census Bureau—❖ Brian C. Monsell, U.S. Census Bureau

17   Elevators as an Excitation Source for Structural Health Monitoring in Buildings—❖ Jong-ho Baek, University of California, Los Angeles

18   Predicting Integrals of Transformed Gaussian Random Fields—❖ Zhengyuan Zhu, The University of North Carolina at Chapel Hill; Alf Harbitz, Institute of Marine Research, Observation Methodology

19   Analysis of Mixed Frequency Data: a Bayesian Model Averaging Approach—❖ Gavino Puggioni, ; Abel Rodriguez, Duke University

20   Data Augmentation within a Conditionally Specified Gaussian Spatial Model—❖ Brooke Fridley, Mayo Clinic College of Medicine; Philip Dixon, Iowa State University

21   Spatio-Temporal Precipitation Modeling Based on a Hidden Random Field—❖ Oleg Makhnin, New Mexico Tech

22   Real-Time Multivariate Analysis Onboard a Wi-Fi–Controlled Vehicle—❖ Jason Minter, Sam Houston State University; Cecil Hallum, Sam Houston State University

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Invited Sessions 4:00 pm–5:50 pm

346   **CC-Ballroom 6ABC**
Deming Lecture—Invited
Deming Lectureship Committee, The ASA, ENAR, WNAR, IMS, SSC, Section on Statistical Consulting

Organizer(s): Lorraine Denby, Avaya Labs Research

Chair(s): Lorraine Denby, Avaya Labs Research

4:05 pm   **Making Another World: a Holistic Approach to Performance Improvement—**❖ Ronald D. Snee, Tunnell Consulting

5:35 pm   **Floor Discussion**

Invited Sessions 8:00 pm–9:30 pm

347   **CC-Ballroom 6ABC**
ASA Presidential Address and Awards—Invited
The ASA

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

Chair(s): Fritz J. Scheuren, NORC

8:00 pm   **Presentation of Awards—**❖ Fritz J. Scheuren, NORC

8:30 pm   **From Data to Policy: Scientific Excellence Is Our Future—**❖ Sallie Keller-McNulty, Rice University

9:00 pm   **Presentation of Founders Awards and New ASA Fellows—**❖ Fritz J. Scheuren, NORC

WEDNESDAY, AUGUST 9

Tours

2:00 pm–5:00 pm　　　　　　　　　　CC-Convention Plaza
TR08 - Seattle City Highlights Tour

3:00 pm–6:00 pm　　　　　　　　　　CC-Convention Plaza
TR09 - Lifestyles and Lakes Cruise

Committee/Business Meetings & Other Activities

7:00 am–8:30 am　　　　　　　　　　　　　CC-301
Committee on Career Development Meeting (closed)
Chair(s): Janice Lent, Research and Innovative Technology Administration

7:00 am–8:30 am　　　　　　　　　　S-Aspen Room
Journal of Computational and Graphical Statistics Editorial Board Meeting (closed)
Chair(s): Luke Tierney, University of Iowa

7:00 am–8:30 am　　　　　　　　　　　　S-Everett
ASA/AMATYC Joint Committee Meeting
Chair(s): Robert DelMas, University of Minnesota

7:00 am–8:30 am　　　　　　　　　　　　　CC-306
Friends and Alumni of Brigham Young University Open House/Breakfast
Organizer(s): Del Scott, Brigham Young University

7:00 am–8:30 am　　　　　　　　　　　H-Chatham
AAAS Committee Business Meeting
Organizer(s): Michael P. Cohen, Bureau of Transportation Statistics

7:00 am–10:00 pm　　　　　　CC-Level 4 South Lobby
Cyber Center

7:00 am–6:00 pm　　　　　　　　　　　　　CC-508
Speaker Work Room

7:00 am–6:00 pm　　　　　　　　　　　　　CC-507
Speaker Work Room

7:30 am–9:30 am　　　　　　　　　　S-Cedar Room

Statistics in Biopharmaceutical Research Advisory Committee (closed)
Chair(s): Karen Kafadar, University of Colorado

7:30 am–4:30 pm　　　　　　　　CC-Level 4 South Lobby
ASA Membership/Special Assistance Desk

7:30 am–4:30 pm　　　　　　　　CC-Level 4 South Lobby
JSM Main Registration

7:30 am–9:30 am　　　　　　　　　　S-Douglas Room
Sequential Analysis Journal Editorial Board's Breakfast Meeting (closed)
Organizer(s): Nitis Mukhopadhyay, University of Connecticut

7:30 am–9:30 am　　　　　　　　　　S-Spruce Room
ASA Engagement with other Organizations Task Force (closed)
Chair(s): Darryl Downing, GlaxoSmithKline

8:00 am–9:00 am　　　　　　　　　　　　　CC-302
Noether Award Committee Business Meeting (closed)
Chair(s): Regina Liu, Rutgers University

8:00 am–2:00 pm　　　　　　　　　　CC-Exhibit Hall 4A
Exhibitor Lounge

8:00 am–6:00 pm　　　　　　　　　　CC-Exhibit Hall 4B
Career Placement Service

9:00 am–11:00 am　　　　　　　　　　　　　CC-301
Committee on Outreach Education (closed)
Chair(s): Wendy Martinez, Office of Naval Research

9:00 am–5:00 pm　　　　　　　　CC-Level 4 South Lobby
ASA Marketplace

9:00 am–5:00 pm　　　　　　　　　　　　CC-Level 1
Citywide Concierge Center

9:00 am–11:00 am　　　　　　　　　　S-Aspen Room
Focus Group to Explore the Introductory Statistics Course

9:00 am–2:00 pm　　　　　　　　　　CC-Exhibit Hall 4A
EXPO 2006

9:00 am–2:00 pm　　　　　　　　　　CC-Exhibit Hall 4A
ASA Communities Booth #101

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

9:00 am–11:00 am — S-Juniper
Council of Sections Publication and Newsletter Editors Meeting
Chair(s): E. JacquelinDietz, Meredith College

11:30 am–2:00 pm — CC-302
Committee on Meetings (closed)
Chair(s): Xiao-Li Meng, Harvard University

12:00 pm–1:30 pm — S-Cedar Room
Noether Award Committee Luncheon (closed)
Chair(s): Regina Liu, Rutgers University

12:00 pm–2:30 pm — H-Chatham
ENAR 2006 Spring Meetings Planning Committee Meeting (by invitation only)
Organizer(s): Kathy Hoskins, ENAR

2:00 pm–8:00 pm — CC-Exhibit Hall 4A
Exhibitor Move Out

4:00 pm–6:00 pm — CC-302
ICES III Program Committee (closed)
Chair(s): Eva Elvers, Statistics Sweden

5:30 pm–7:00 pm — CC-606
Section on Statistical Education Business Meeting
Chair(s): Christine Franklin, University of Georgia

5:45 pm–6:45 pm — CC-603
International Chinese Statistical Association (ICSA) Annual Members Meeting
Organizer(s): Ivan Chan, Merck & Co., Inc.

6:00 pm–7:30 pm — S-Governors Suite
JSM 2006 Program Committee/ACCE/COM Reception (closed)
Chair(s): William Smith, American Statistical Association; Lisa M. LaVange, The University of North Carolina at Chapel Hill; Charles Tan, Merck & Co., Inc.; Xiao-Li Meng, Harvard University

Continuing Education (Fee Events)

CE_31T — CC-305
8:30 am–10:15 am
Time Series in SPSS: Automatic Model Selection and Outlier Detection
The ASA

Instructor(s): Dongping Fang, SPSS Inc.

CE_32T — CC-304
8:30 am–10:15 am
Meta-analysis: Concepts and Applications
The ASA
Instructor(s): Michael Borenstein, Biostat, Inc.; Hannah R. Rothstein, Biostat, Inc.

CE_33T — CC-303
8:30 am–10:15 am
Power and Sample Size Analysis Using SAS/STAT Software
The ASA
Instructor(s): John Castelloe, SAS Institute, Inc.

CE_34T — CC-305
10:30 am–12:15 pm
Introduction to CART: Data Mining with Decision Trees
The ASA
Instructor(s): Mikhail Golovnya, Salford Systems

CE_35T — CC-304
10:30 am–12:15 pm
Power Analysis: a Simple and Effective Approach
The ASA
Instructor(s): Michael Borenstein, Biostat, Inc.

CE_36T — CC-303
10:30 am–12:15 pm
Modern Regression Analysis in SAS Software
The ASA
Instructor(s): Robert Cohen, SAS Institute, Inc.

CE_37T — CC-305
2:00 pm–3:45 pm
Advances in Data Mining: Jerome Friedman's TreeNet/ MART and Leo Breiman's Random Forests
The ASA
Instructor(s): Mikhail Golovnya, Salford Systems

CE_38T — CC-304
2:00 pm–3:45 pm
East 4: a Comprehensive Package for Adaptive and Group Sequential Design, Interim Monitoring, and Simulation
The ASA

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Instructor(s): Cyrus Mehta, Cytel Inc.

CE_39T   CC-303
2:00 pm–3:45 pm
Quantile Regression Using the SAS QUANTREG Procedure
The ASA
Instructor(s): Colin Chen, SAS Institute, Inc.

CE_40T   CC-305
4:00 pm–5:45 pm
Introduction to MARS: Predictive Modeling with Nonlinear Automated Regression Tools
The ASA
Instructor(s): Mikhail Golovnya, Salford Systems

CE_41T   CC-303
4:00 pm–5:45 pm
From Software to Solutions in Statistics and Risk Analysis
The ASA
Instructor(s): Shawn Harahush, Palisade Corporation

Roundtables with Coffee
7:00 am–8:15 am

348   **CC-4C-1**
Section on Bayesian Statistical Science Roundtable with Coffee (fee event)
Section on Bayesian Statistical Science
Organizer(s): Merlise Clyde, Duke University

WL01   Model Selection in Hierarchical Models—❖ David B. Dunson, National Institute of Environmental Health Sciences

349   **CC-4C-1**
Section on Statistical Education Roundtable with Coffee (fee event)
Section on Statistical Education
Organizer(s): Patti Collings, Brigham Young University

WL02   An Open Discussion about Quantitative and Qualititative Research in Statistics Education—❖ Jackie Miller, The Ohio State University

350   **CC-4C-1**
Section on Statistics and the Environment Roundtables with Coffee (fee event)
Section on Statistics and the Environment
Organizer(s): Peter Guttorp, University of Washington

WL03   Keeping Our Jobs: Relevance of Statistical Research in a Production Environment—❖ Gretchen Moisen, U.S. Forest Service

WL04   Current Issues in Space-Time Modeling of Environmental Data—❖ Montserrat Fuentes, North Carolina State University

351   **CC-4C-1**
Section on Statistics in Epidemiology Roundtable with Coffee (fee event)
Section on Statistics in Epidemiology, Section on Statistical Consulting
Organizer(s): Jennifer Clark Nelson, Group Health Cooperative

WL05   Developing and Cultivating Successful Collaborations—❖ Robert F. Woolson, Medical University of South Carolina

352   **CC-4C-1**
Section on Physical and Engineering Sciences Roundtable with Coffee (fee event)
Section on Physical and Engineering Sciences
Organizer(s): Winson Taam, The Boeing Company

WL06   Catching up on Wavelets: Recent Advances, Future Directions—❖ Donald B. Percival, University of Washington

353   **CC-4C-1**
Statistical Society of Canada Roundtable with Coffee (fee event)
SSC, Section on Statistical Consulting
Organizer(s): X. JoanHu, Simon Fraser University

WL07   Tips for Academic Medical Statisticians—❖ Karen Kopciuk, Alberta Cancer Board; Rhonda Rosychuk, University of Alberta

Special Presentation 8:30 am–10:20 am

354   **CC-400**
Late-Breaking Session #2: What is the Role of Statistics in Public Policy Debates about Climate Change?—Other

Wednesday

The ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Edward Wegman, George Mason University; Richard L. Smith, The University of North Carolina at Chapel Hill

Chair(s): Douglas W. Nychka, National Center for Atmospheric Research

8:40 am   **The Kyoto Accord, the 2001 IPCC Third Assessment Report, and the Academic Papers Underpinning Them—**❖ Edward Wegman, George Mason University

9:05 am   **National Research Council Report on the 'Hockey Stick Controversy'—**❖ J. Michael Wallace, University of Washington

9:30 am   **The CCSP Report on Temperature Trends in the Lower Atmosphere—**❖ Richard L. Smith, The University of North Carolina at Chapel Hill

9:55 am   **Floor Discussion**

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355   **CC-4C-4**

Introductory Overview Lectures: Image Statistics and Bootstrap—Other

The ASA, ENAR, IMS, SSC, WNAR

Organizer(s): Jianwen Cai, The University of North Carolina at Chapel Hill

Chair(s): Chris Fraley, Insightful Corporation

8:35 am   **Introduction to Bootstrapping—**❖ Tim C. Hesterberg, Insightful Corporation

9:25 am   **Image Statistics—**❖ Eugene Demidenko, Dartmouth Medical School

10:15 am   **Floor Discussion**

Invited Sessions 8:30 am–10:20 am

356   **CC-614**

Estimation and Inference for Models with Many Parameters—Invited

Business and Economics Statistics Section

Organizer(s): Robert J. Kohn, University of New South Wales

Chair(s): Thomas S. Shively, The University of Texas at Austin

8:35 am   **Objective Bayesian Analysis for Multivariate Dynamic Models—**❖ Dongchu Sun, Virginia Polytechnic Institute and State University/ University of Missouri-Columbia; Shawn Ni, University of Missouri-Columbia

9:00 am   **Bayesian Inference for Gaussian Copula Models—**❖ Robert J. Kohn, University of New South Wales

9:25 am   **Spatial Bayesian Variable Selection with Application to Functional Magnetic Resonance Imaging—**❖ Michael Smith, University of Sydney; Daniel Smith, University of Sydney

9:50 am   **Statistical Inference for Highly Parameterized Models for Discrete-Valued Data—**❖ Sylvia Fr ̧hwirth-Schnatter, Johannes Kepler University

10:15 am   **Floor Discussion**

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357   **CC-203**

● ✪ Statistical Models in Computational Biology—Invited

WNAR, Biometrics Section, ENAR

Organizer(s): Raquel Prado, University of California, Santa Cruz

Chair(s): Daniel Merl, University of California, Santa Cruz

8:35 am   **Spatial Smoothing To Map HIV Recombination Hotspots: Associations with RNA Secondary Structure—**❖ Marc A. Suchard, University of California, Los Angeles; Vladimir N. Minin, University of California, Los Angeles; Karin S. Dorman, Iowa State University

8:55 am   **Computational and Statistical Algorithms for Parentage Inference with Single Nucleotide Polymorphisms—**❖ Eric C. Anderson, Southwest Fisheries Science Center

9:15 am   **Detecting Positive Selection in Protein-Coding DNA Sequences in Absence of Substantial Phylogenetic Information—**❖ Raquel Prado, University of California, Santa Cruz; Daniel Merl, University of California, Santa Cruz

9:35 am   **Inferring Maximum-Likelihood Species Phylogenies under Coalescence—**❖ Laura S. Kubatko, University of New Mexico

9:55 am   **A Bayesian Approach to Gene Tree Concordance—**❖ Bret Larget, University of Wisconsin-Madison

10:15 am   **Floor Discussion**

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358   **CC-201**

● Complex Sampling Designs and Related Inference Issues in Epidemiologic Studies—Invited

Section on Statistics in Epidemiology

Organizer(s): Bhramar Mukherjee, University of Florida

Chair(s): Malay Ghosh, University of Florida

8:35 am   **Complex Case-Control Sampling Methods: Solutions to Some Diverse Problems in**

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

Epidemiological Research—❖ Bryan Langholz, Keck School of Medicine of USC

9:00 am	**Confounding of Genetic Association Studies by Population Structure**—❖ Alice S. Whittemore, Stanford University
9:25 am	**Case-Control Studies of Gene-Environment Interaction: a Bayesian Approach**—❖ Bhramar Mukherjee, University of Florida; Li Zhang, University of Florida; Malay Ghosh, University of Florida
9:50 am	Disc: Peter Kraft, Harvard University
10:10 am	**Floor Discussion**

359   CC-602
● Rare Trait Inference—Invited

Section on Survey Research Methods

Organizer(s): Myron J. Katzoff, National Center for Health Statistics

Chair(s): Myron J. Katzoff, National Center for Health Statistics

8:35 am	**Network Sampling: a Potential Tool for Survey Estimates about Rare Populations**—❖ Iris M. Shimizu, National Center for Health Statistics; Monroe G. Sirken, National Center for Health Statistics
9:00 am	**Design and Likelihood-Based Inference for Sample Surveys on Rare Traits**—❖ Steve Thompson, Simon Fraser University
9:25 am	**Testing Logistic Regression Coefficients with Clustered Data and Few Positive Outcomes**—❖ Sally Hunsberger, National Cancer Institute; Barry I. Graubard, National Cancer Institute; Edward Korn, National Cancer Institute
9:50 am	**Analytic Issues for Rare Events in the NHANES Survey**—❖ Lester R. Curtin, Centers for Disease Control and Prevention
10:15 am	**Floor Discussion**

360   CC-612
● ✪ New Directions in Statistical Machine Learning—Invited

Section on Statistical Computing, Section on Statisticians in Defense and National Security, Section on Nonparametric Statistics

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

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

8:35 am	**Margin-Based, Semisupervised Learning**—Junhui Wang, University of Minnesota; ❖ Xiaotong Shen,

University of Minnesota

9:05 am	**Classification and Feature Selection for High-Dimensional Data**—❖ Hao Zhang, North Carolina State University
9:35 am	**Bias and Variance of Bagging Based on Subsampling with and without Replacement**—❖ Andreas Buja, University of Pennsylvania
10:05 am	**Floor Discussion**

361   CC-607
● Causal Inference and the Estimation of Neighborhood Health Effects—Invited

Section on Health Policy Statistics, Biometrics Section

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

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

8:35 am	**The (Mis)estimation of Neighborhood Effects: Identification Problems and the Multilevel Model**—❖ J. Michael Oakes, University of Minnesota
9:00 am	**Response to 'The (Mis)Estimation of Neighborhood Effects'**—❖ Jay S. Kaufman, The University of North Carolina at Chapel Hill
9:25 am	**Forming Better Guesses about Neighborhood Effects on Health**—❖ Brian Krauth, Simon Fraser University
9:50 am	**Causal Diagrams To Express Identification of Place Effects Using Multilevel Models**—❖ M. Maria Glymour, Harvard School of Public Health; S. V. Subramanian, Harvard School of Public Health
10:15 am	**Floor Discussion**

362   CC-401
✪ Detecting Anomalies in Dynamic Multivariate Data—Invited

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

Organizer(s): Deepak K. Agarwal, AT&T Labs-Research

Chair(s): Chuanhai Liu, Purdue University

8:35 am	**Aggregation Queries at Streaming Speeds**—❖ Divesh Srivastava, AT&T Labs-Research
9:00 am	**Dynamic Thresholds: Monitoring Streams of Counts Online**—❖ Diane Lambert, Google, Inc.; Chuanhai Liu, Purdue University
9:25 am	**Monitoring Massive Streams Simultaneously: a Holistic Approach**—❖ Deepak K. Agarwal, AT&T Labs-Research

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

9:50 am   **Two-Dimensional Variable Window Scan Statistics**—❖ Joseph Glaz, University of Connecticut

10:15 am   **Floor Discussion**

363 — CC-617
● Design and Analysis of Experiments for Complex Computer Simulators —Invited

Section on Physical and Engineering Sciences

Organizer(s): Derek Bingham, Simon Fraser University

Chair(s): Derek Bingham, Simon Fraser University

8:35 am   **Designs for Integrated Computer and Physical Experiments**—❖ C. Shane Reese, Brigham Young University; Derek Bingham, Simon Fraser University; Wilson Lu, Simon Fraser University

9:05 am   **Sequential Experiment Design for Contour Estimation from Complex Computer Codes**—❖ Pritam Ranjan, Simon Fraser University

9:35 am   **Uncertainty Quantification for Combining Experimental Data and Computer Simulations from Multiple Data Sources**—❖ Brian J. Williams, Los Alamos National Laboratory; Dave Higdon, Los Alamos National Laboratory; Jim Gattiker, Los Alamos National Laboratory

10:05 am   **Floor Discussion**

Invited Panels 8:30 am–10:20 am

364 — CC-206
● Status of Disability Information in Surveys —Invited

Committee on Statistics and Disability

Organizer(s): Michele Connolly, U.S. Social Security Administration

Chair(s): Michele Connolly, U.S. Social Security Administration

Panelists: ❖ Susan Schechter, Office of Management and Budget

❖ Jennifer Madans, National Center for Health Statistics

❖ Martin Gould, National Council for Disability

❖ Philip Rones, Bureau of Labor Statistics

❖ Mary Grace Kovar, NORC

10:15 am   **Floor Discussion**

365 — CC-3B

National Science Foundation Invited Session— Invited

National Science Foundation, Section on Statistical Education

Organizer(s): Grace Yang, National Science Foundation

Chair(s): Grace Yang, National Science Foundation

Panelists: ❖ Cheryl Eavey, National Science Foundation

❖ Dean Evasius, National Science Foundation

❖ Wen C. Masters, National Science Foundation

❖ Ronald S. Fecso, National Science Foundation

10:15 am   **Floor Discussion**

Topic-Contributed Sessions 8:30 am–10:20 am

366 — CC-618
✪ Sparse Inference and Multiple Comparisons— Topic-Contributed

IMS

Organizer(s): Jiashun Jin, Purdue University

Chair(s): Pei Wang, Fred Hutchinson Cancer Research Center

8:35 am   **False Discovery Rates for Spatial Signals**—❖ Ruth Heller, Tel-Aviv University; Yoav Benjamini, Tel-Aviv University

8:55 am   **Large Dimensional Covariance Matrix Estimation Using a Factor Model**—❖ Jinchi Lv, Princeton University

9:15 am   **A Bayesian Approach for Incomplete Paired Data**—❖ Feng Liang, Duke University; Woncheol Jang, Duke University; Fei Liu, Duke University

9:35 am   **Quantile Coupling for Median and Its Application to Nonparametric Robust Estimation**—❖ Harrison Zhou, Yale University

9:55 am   **Sparse Principal Component Analysis**—❖ Hui Zou, University of Minnesota

10:15 am   **Floor Discussion**

367 — CC-2B
Adaptive Dose Response—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Jose Pinheiro, Novartis Pharmaceuticals Corporation

Chair(s): Jeffrey Maca, Novartis Pharmaceuticals Corporation

8:35 am   **Implementing Bayesian Adaptive Dose-Response Finding Studies: a Clinical Perspective**—❖

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Michael Krams,

8:55 am **Adaptive Dose-Response Phase II Trials for Clinical Development**—❖ Qing Liu, Johnson & Johnson

9:15 am **Evaluating Rolling Dose Designs and Methods**—❖ Amit Roy, Bristol-Myers Squibb Company; Frank Shen, Bristol-Myers Squibb Company

9:35 am Disc: Greg Enas, Eli Lilly and Company

9:55 am Disc: Jerald Schindler, Cytel Inc.

10:15 am **Floor Discussion**

368   CC-2A
Biomarker—Topic-Contributed
Biopharmaceutical Section, Biometrics Section, ENAR
Organizer(s): Viswanath Devanarayan, Merck Research Laboratories
Chair(s): Christopher Tong, Merck Research Laboratories

8:35 am **Biomarker Analysis of Medical Imaging and Radiotelemetry Signals**—❖ Christopher Tong, Merck Research Laboratories; Yevgen Tymofyeyev, Merck Research Laboratories; Karim Azer, Merck Research Laboratories; Philip E. Brandish, Merck Research Laboratories; Hongxing Chen, Merck Research Laboratories; James C. Hershey, Merck Research Laboratories; Matthew Walker, III, Merck Research Laboratories; Barry R. Campbell, Merck Research Laboratories; Kaijie Fang, Merck Research Laboratories; Donald S. Williams, Merck Research Laboratories; Alexandre Coimbra, Merck Research Laboratories

8:55 am **Statistical Considerations for Protein Biomarker Discovery from Human Plasma and Cerebrospinal Fluid**—❖ Richard Higgs, Eli Lilly and Company

9:15 am **Model Selection and Cross-Validation for Biomarker Discovery and Validation**—❖ Annette Molinaro, Yale University School of Medicine

9:35 am **Application of RandomForest as a Variable Selection Tool on Biomarker Data**—❖ Katja Remlinger, GlaxoSmithKline

9:55 am Disc: Joseph Heyse, Merck & Co., Inc.

10:15 am **Floor Discussion**

369   CC-615
● Ranked Set Sampling II—Topic-Contributed
Section on Nonparametric Statistics
Organizer(s): Omer Ozturk, The Ohio State University
Chair(s): Omer Ozturk, The Ohio State University

8:35 am **Confidence Intervals for Quantiles Based on Ranked Set Samples**—❖ Tao Li, St. Francis Xavier University; Narayanaswamy Balakrishnan, McMaster University

8:55 am **Missing Data and Consequences in Ranked Set Sampling**—❖ Jessica Kohlschmidt, The Ohio State University; Elizabeth Stasny, The Ohio State University; Douglas Wolfe, The Ohio State University

9:15 am **Ranked Set Sampling for Ordered Categorical Variables**—❖ Haiying Chen, Wake Forest University; Elizabeth Stasny, The Ohio State University; Douglas Wolfe, The Ohio State University

9:35 am **Order-Restricted, Randomized Designs for Linear Models Using L1 Norm**—❖ Shannon Markiewicz, The Ohio State University; Omer Ozturk, The Ohio State University

9:50 am **Two-Sample, Ranked-Sum Test for Order-Restricted Randomized Designs**—❖ Yiping Sun, The Ohio State University; Omer Ozturk, The Ohio State University

10:15 am **Floor Discussion**

370   CC-604
From Policy to Application: a Health and Mortality Case Study—Topic-Contributed
Section on Government Statistics
Organizer(s): Wendy Alvey, U.S. Census Bureau; Norman Johnson, U.S. Census Bureau
Chair(s): Paul D. Sorlie, National Heart, Lung, and Blood Institute/NIH

8:35 am **The National Longitudinal Mortality Study**—❖ Norman Johnson, U.S. Census Bureau

8:55 am **The National Death Index: an Overview**—❖ Robert Bilgrad, National Center for Health Statistics

9:15 am **The NLMS: Data Stewardship Policies at Work**—❖ Wendy Alvey, U.S. Census Bureau

9:35 am **U.S. Census Bureau Administrative Record Data Stewardship Policies for Administrative Records Use**—❖ Patricia Melvin, U.S. Census Bureau

9:55 am Disc: Daniel J. Wilson, Federal Reserve Bank of San Francisco

10:15 am **Floor Discussion**

371   CC-619

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

● **Visual Sampling Plan Software for Designing Environmental Sampling Plans for Chem/Bio/ Rad and Munitions Contamination—Topic- Contributed**

Section on Statistics and the Environment

Organizer(s): Richard Gilbert, Pacific Northwest National Laboratory

Chair(s): Richard GIlbert, Pacific Northwest National Laboratory

8:35 am	**Visual Sample Plan (VSP) Software: What Is It, and How To Use It?—**❖ John Wilson, Pacific Northwest National Laboratory; Lisa Nuffer, Pacific Northwest National Laboratory; Brent A. Pulsipher, Battelle-PNNL
8:55 am	**Sampling Designs for Surfaces within Buildings—**❖ Brett D. Matzke, Battelle-PNNL; Brent A. Pulsipher, Battelle-PNNL; John Wilson, Pacific Northwest National Laboratory; Richard Gilbert, Pacific Northwest National Laboratory; Lisa Nuffer, Pacific Northwest National Laboratory; Nancy Hassig, Pacific Northwest National Laboratory; John Hathaway, Battelle-PNNL
9:15 am	**Geophysical Survey Designs To Aid the Identification and Remediation of Ordnance- Related Contaminants—**❖ John Hathaway, Battelle-PNNL; Brent A. Pulsipher, Battelle- PNNL; John Wilson, Pacific Northwest National Laboratory; Richard Gilbert, Pacific Northwest National Laboratory; Brett D. Matzke, Battelle- PNNL
9:35 am	**A Practical Application of VSP to an Environmental Question: Abraham's Creek—**❖ Kelly Black, Neptune & Company; Michele Wolf, Neptune & Company
	Disc: Nagaraj Neerchal, University of Maryland Baltimore County
9:55 am	**Floor Discussion**

372 CC-310

● ✪ **Statistics in the Aerospace Industry: Human Factor Studies—Topic-Contributed**

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

Organizer(s): I-Li Lu, The Boeing Company

Chair(s): Winson Taam, The Boeing Company

8:35 am	**Using Statistical Methods in the Design of the 787 Cabin Environment—**❖ Martin Meckesheimer, The Boeing Company
8:55 am	**Predicted Arterial Oxygenation at Commercial**

	Aircraft Cabin Altitudes—❖ Mike Muhm, The Boeing Company
9:15 am	**Protocol Development of the Cabin Altitude Study—**❖ Dianne McMullin, The Boeing Company; Mike Muhm, The Boeing Company; Stephen P. Jones, The Boeing Company; I-Li Lu, The Boeing Company; Paul Rock, Oklahoma State University
9:35 am	**Statistical Methods in Cabin Altitude Study—**❖ Stephen P. Jones, The Boeing Company
9:55 am	**Applications of Structural Equation Models: Case Studies in Biomedical and Aerospace Engineering Research—**❖ I-Li Lu, The Boeing Company
10:15 am	**Floor Discussion**

373 CC-603

● ✪ **Medical Expenditures: Data Collection, Estimation, and Evaluations—Topic-Contributed**

Section on Survey Research Methods, Section on Health Policy Statistics, Biometrics Section, ENAR

Organizer(s): Trena Ezzati-Rice, Agency for Healthcare Research and Quality

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

8:35 am	**The Completeness and Accuracy of Household Reports of Total Medical Expenditures—**❖ David Kashihara, Agency for Healthcare Research and Quality; Steven R. Machlin, Agency for Healthcare Research and Quality; Lap-Ming Wun, Agency for Healthcare Research and Quality
8:55 am	**An Evaluation of the Completeness and Accuracy of Household Reports of Out-of-Pocket and Private Health Insurance Payments for Medical Expenditures—**Steven R. Machlin, Agency for Healthcare Research and Quality; ❖ Diana Wobus, Westat
9:15 am	**The Impact of Medical Expenditure Predictors in MEPS Nonresponse Adjustments—**❖ Lap- Ming Wun, Agency for Healthcare Research and Quality; Trena Ezzati-Rice, Agency for Healthcare Research and Quality; Steven B. Cohen, Agency for Healthcare Research and Quality; William Yu, Agency for Healthcare Research and Quality
9:35 am	**Evaluation of Expenditure Estimates When Including a High-Expenditure Predictor in Nonresponse Adjustments—**Lap-Ming Wun, Agency for Healthcare Research and Quality; Steven B. Cohen, Agency for Healthcare Research

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Wednesday

and Quality; ❖ Trena Ezzati-Rice, Agency for Healthcare Research and Quality; William Yu, Agency for Healthcare Research and Quality

9:55 am **Approximation of Skewed Health Care Expenditure Distribution Using a Mixture Model**—❖ William Yu, Agency for Healthcare Research and Quality

10:15 am **Floor Discussion**

374 CC-205
✪ Analyses of Studies Using Biomarkers—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section, ENAR

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

Chair(s): Alex Bajamonde, Genentech, Inc.

8:35 am **Array Spatial Variability and Normalization Techniques for Microarray Gene Expression Signals**—❖ Samir Lababidi, U.S. Food and Drug Administration; Daya Ranamukhaarachchi, U.S. Food and Drug Administration

8:55 am **Statistical Issues in Incorporating and Testing Biomarkers in Clinical Trials**—❖ Daniel Sargent, Mayo Clinic College of Medicine; Sumithra Mandrekar, Mayo Clinic College of Medicine

9:15 am **Statistical Design and Multiple Testing Analysis of Microarray**—❖ Jane Chang, Bowling Green State University; Jason Hsu, The Ohio State University

9:35 am **Prediction Modeling Using Survival Data for Gene Expression Prognostic Test for Breast Cancer**—❖ Kit Lau, Celera Diagnostics; Alice Wang, Celera Diagnostics; John Sninsky, Celera Diagnostics; Trevor Hastie, Stanford University

9:55 am Disc: Estelle Russek-Cohen, U.S. Food and Drug Administration

10:05 am **Floor Discussion**

Topic-Contributed Panels
8:30 am–10:20 am

375 CC-606
● ✪ What Is Feminist Statistics?—Topic-Contributed

Social Statistics Section, Caucus for Women in Statistics, Section on Government Statistics, Section on Statistical Education

Organizer(s): Mary W. Gray, American University

Chair(s): Mary W. Gray, American University

Panelists: ❖ Martha Aliaga, American Statistical Association

❖ Arlene Ash, Boston University

❖ Eduardas Valaitis, American University

10:15 am **Floor Discussion**

376 CC-609
● Mentoring Statisticians—Topic-Contributed

Section on Statistical Education, Committee on Career Development

Organizer(s): Snehalata Huzurbazar, University of Wyoming

Chair(s): Snehalata Huzurbazar, University of Wyoming

Panelists: ❖ Amy Froelich, Iowa State University

❖ Sastry Pantula, North Carolina State University

❖ Sally C. Morton, RTI International

❖ Cynthia Clark, U. K. Office for National Statistics

❖ Ronald Menton, Wyeth Research

10:15 am **Floor Discussion**

Regular Contributed Sessions
8:30 am–10:20 am

377 CC-309
● Capture-Recapture and Other Problems in Environmental and Ecological Statistics—Contributed

Biometrics Section, ENAR

Chair(s): Linda Young, University of Florida

8:35 am **Semiparametric Models for Capture-Recapture Experiments with Behavoral Response**—❖ Wen-Han Hwang, Feng Chia University; Richard Huggins, University of Melbourne

8:50 am **Approximate Estimating Equations in Measurement Error Model with Application to a Capture-Recapture Problem**—❖ Yih-huei Huang, Tamkang University

9:05 am **Population Estimation for Noninvasive Trapping**—❖ Emily Murphree, Miami University

9:20 am **Assessing Similarity of Two Assemblages with Unseen Species in Samples**—❖ Tsung-Jen Shen, National Chung Hsing University; Anne Chao, National Tsing Hua University; Robin L. Chazdon,

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

University of Connecticut; Robert L. Colwell, University of Connecticut

9:35 am **Estimating the Species Richness by a Poisson-Compound Gamma Model**—❖ Ji-Ping Wang, Northwestern University

9:50 am **Mixtures of Exponential Distributions To Describe the Distribution of Poisson Means in Estimating the Number of Unobserved Classes**—❖ Kathryn Barger, Cornell University

10:05 am **Principle Component Analysis as a Statistical Tool To Investigate the Role of Specific Habitat Variables in Lyme Disease Ecology**—❖ Haiyan Chen, Dana-Farber Cancer Institute

378 CC-308
● Models for Multivariate (Longitudinal) Data—Contributed
Biometrics Section, ENAR

Chair(s): Armando Teixeira-Pinto, Harvard School of Public Health

8:35 am **Alternative Structural Models for Analyzing Multivariate Longitudinal Data**—❖ Feng Gao, Washington University School of Medicine; Paul Thompson, Washington University School of Medicine; Chengjie Xiong, Washington University School of Medicine; J. Philip Miller, Washington University School of Medicine

8:50 am **Unconstrained Models for the Covariance Structure of Multivariate Longitudinal Data**—❖ Chulmin Kim, University of Minnesota, Morris; Dale Zimmerman, The University of Iowa

9:05 am **Multilevel Flexible Models for Mixed Longitudinal Data**—❖ Nuoo-Ting Molitor, University of Southern California; Kiros Berhane, University of Southern California

9:20 am **Robustness in Joint Modeling of a Primary Regression Model and a Longitudinal Process**—❖ Xianzheng Huang, North Carolina State University; Marie Davidian, North Carolina State University; Leonard A. Stefanski, North Carolina State University

9:35 am **Conditional Estimation for Joint Models for a Primary Endpoint and Multivariate Longitudinal Data**—❖ Erning Li, Texas A&M University; Naisyin Wang, Texas A&M University; Nae-Yuh Wang, The Johns Hopkins University School of Medicine

9:50 am **A Bayesian Approach to Modeling Associations**

between Pulsatile Hormones—❖ Nichole Carlson, Oregon Health & Science University; Timothy D. Johnson, University of Michigan; Morton B. Brown, University of Michigan

10:05 am **Floor Discussion**

379 CC-608
● Robust Solutions—Contributed
Business and Economics Statistics Section

Chair(s): Michael Sverchkov, Bureau of Labor Statistics and BAE Systems IT

8:35 am **Competitiveness Analysis of the Italian Firms: Use of Robust Classification Methods**—❖ Matilde Bini, University of Florence; Luigi Biggeri, Italian National Statistical Institute

8:50 am **On robust forecasting in dynamic vector time series models**—❖ Pierre Duchesne, UniversitÈ de MontrÈal; Christian GagnÈ, UniversitÈ de MontrÈal

9:05 am **A Test of the Modality of the Variance Function in Modulated Autoregressive Models**—❖ Gabe Chandler, Connecticut College

9:20 am **Multiple Imputation of Right-Censored Data: an Application to Wage Data and Understanding the Changing Wage Gap by Gender in Germany**—❖ Hermann Gartner, Institute for Employment Research

9:35 am **A new approach to univariate unit root tests robust to structural change**—❖ Seong-Tae Kim, North Carolina State University

9:50 am **Testing for Threshold Moving Average with Conditional Heteroscedasticity**—❖ Guodong Li, The University of Hong Kong; Wai K. Li, The University of Hong Kong

10:05 am **A New Approach for Calculating Sample Size To Detect Desired Difference between Treatment Groups with Intended Power**—❖ Seemit Sheth, Capital One Financial Corporation

380 CC-204
● Flexible Methods for Longitudinal Data—Contributed
ENAR, Biometrics Section

Chair(s): Andres Houseman, Harvard School of Public Health

8:35 am **Efficient Estimation in Semiparametric Generalized Linear Model for Longitudinal**

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

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Data—❖ Lu Wang, Harvard University; Xihong Lin, Harvard School of Public Health; Andrea Rotnitzky, Harvard University

8:50 am **Varying-Coefficient Model with Unknown within-Subject Covariance for the Analysis of Tumor Growth Curves**—❖ Robert Krafty, University of Pennsylvania; Wensheng Guo, University of Pennsylvania; Phyllis Gimotty, University of Pennsylvania; George Coukos, University of Pennsylvania

9:05 am **Modeling Plasma HIV Viral Load by a Piecewise Polynomial Linear Mixed Model**—❖ Hsiao-Chuan Tien, The University of North Carolina at Chapel Hill; Pai-Lien Chen, Family Health International

9:20 am **Nonparametric Inference in the Heteroscedastic Two-Way Random Effects Model Based on Ranks**—❖ Zhe Shang, Wyeth Research

9:35 am **Marginal Regression Modeling under Irregular, Biased Sampling**—❖ Petra Buzkova, The University of North Carolina at Chapel Hill; Thomas Lumley, University of Washington

9:50 am **Projected Multivariate Linear Mixed-Effects Models for Clustered Angular Data**—❖ Daniel Hall, University of Georgia; Lewis Jordan, University of Georgia; Jinae Lee, University of Georgia

10:05 am **Optimal estimators from Generalized Estimating Equations (GEE) for longitudinal data**—❖ Ioana Schiopu-Kratina, Statistics Canada; Raluca M. Balan, University of Ottawa

381   CC-3A

● **Survival, Time to Event—Contributed**

Biopharmaceutical Section, Biometrics Section, ENAR

Chair(s): B. ChristineClark, ICON Clinical Research

8:35 am **Predicting Time of Completion in Multiphase Survival Trials**—❖ Dennis Sweitzer, AstraZeneca Pharmaceuticals

8:50 am **Power Calculation for Log-Rank Test under a Nonproportional Hazards Model**—❖ Daowen Zhang, sanofi-aventis; Hui Quan, sanofi-aventis

9:05 am **Use of Life Tables To Extrapolate Survival from Clinical Trial Data**—❖ W. J. Hall, University of Rochester Medical Center; Hongyue Wang, University of Rochester Medical Center

9:20 am **Analyzing Change in Hazard for Time-to-Event Endpoints in Clinical Trials**—❖ Rafia Bhore, U.S.

Food and Drug Administration; Sandra Gardner, Sunnybrook Health Sciences Centre

9:35 am **Time to Rescue as a Surrogate Endpoint for Analgesic Efficacy in Acute Pain Studies**—❖ Julia Wang, Johnson & Johnson Pharmaceutical R&D; Akiko Okamoto, Johnson & Johnson Pharmaceutical R&D; Surya Mohanty, Johnson & Johnson Pharmaceutical R&D

9:50 am **On Analysis of Time to Progression**—❖ Zhiping Sun, Merck & Co., Inc.; Cong Chen, Merck & Co., Inc.

10:05 am **Testing for Change-Points in Waiting Time Distributions**—❖ Thomas Hammerstrom, U.S. Food and Drug Administration; Rafia Bhore, U.S. Food and Drug Administration

382   CC-307

● **Clustering and Classification—Contributed**

Biometrics Section, ENAR

Chair(s): David B. Hitchcock, University of South Carolina

8:35 am **Classification by Ensembles from Random Partitions of High-Dimensional Genomic Data**—❖ Hojin Moon, U.S. Food and Drug Administration; Hongshik Ahn, Stony Brook University; James J. Chen, U.S. Food and Drug Administration; Ralph L. Kodell, U.S. Food and Drug Administration

8:50 am **Ensemble methods for classifying an ordinal response**—❖ Kellie J. Archer, Virginia Commonwealth University

9:05 am **Tree-Based Integration of One-versus-Some Classifiers for Multiclass Classification**—❖ Yuejing Ding, Columbia University; Tian Zheng, Columbia University

9:20 am **Clustering Genes in Genetical Genomics Experiments**—❖ Joshua Sampson, University of Washington; Steve Self, University of Washington

9:35 am **A Divisive Method via Multivariate Hypothesis Testing for Clustering Gene Expression Patterns**—❖ Haiyan Wang, Kansas State University

9:50 am **On Comparing the Clustering of Regression Models Method with K-Means Clustering**—❖ Li-Xuan Qin, Memorial Sloan-Kettering Cancer Center; Steve Self, University of Washington

10:05 am **Floor Discussion**

383   CC-616

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

Clustering—Contributed

Section on Statistical Computing, Section on Nonparametric Statistics

Chair(s): Guei-Feng Tsai, Northwestern University

8:35 am   **Clustering by Intersection-Merging—**❖ Qunhua Li, University of Washington; Marina Meila, University of Washington

8:50 am   **Strategies for Scaling and Weighting Variables in Cluster Analysis—**❖ Srinivas Maloor, Rutgers University; Ramanathan Gnanadesikan, Rutgers University; Jon Kettenring, Drew University

9:05 am   **Model-Based Projection Pursuit Clustering—**❖ Jie Ding, GlaxoSmithKline

9:20 am   **Estimating the Number of Data Clusters via Agreement Measure–Based Statistics—**❖ Heng Liu, University of Illinois at Urbana-Champaign; Michelle Wang, University of Illinois at Urbana-Champaign; Douglas Simpson, University of Illinois at Urbana-Champaign

9:35 am   **Clustering of Longitudinal Data: a Functional Data Approach—**❖ Jeng-Min Chiou, Academia Sinica; Pai-Ling Li, National Tsing Hua University

9:50 am   **Initializing Optimization Partition Algorithms—**❖ Ranjan Maitra, Iowa State University

10:05 am   **A Scale-Independent Clustering Method with Automatic Variable Selection Based on Trees—**❖ Samuel Buttrey, Naval Postgraduate School

384   CC-610

● Examples for the Statistics Classroom—Contributed

Section on Statistical Education

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

8:35 am   **Making Babies by the Flip of a Coin?—**❖ Matthew Carlton, California Polytechnic State University, San Luis Obispo

8:50 am   **Illuminating the Confidence Interval Concept Activity—**❖ Alicia Graziosi, Temple University; Jeffrey Lidicker, Temple University

9:05 am   **Learning Activities for Large Classes—**❖ Patti Collings, Brigham Young University

9:20 am   **How Low Can You Go?—**❖ Paul Stephenson, Grand Valley State University; Mary Richardson, Grand Valley State University; John Gabrosek, Grand Valley State University

9:35 am   **Conditional Probability and 'Who Wants To Be a Millionaire?'—**❖ Diane Evans, Rose-Hulman

Institute of Technology

9:50 am   **Post-Hoc Analysis for a Class of Chi-Square Tests—**❖ Edward Markowski, Old Dominion University; Carol A. Markowski, Old Dominion University

10:05 am   **Keeping an Introductory Statistics Course Interesting: Use of Demonstrations, Examples, Rewards, and a Little Humor—**❖ Harry Norton, Carolinas Medical Center

385   CC-611

Bayesian Design and High Dimensional Inference—Contributed

Section on Bayesian Statistical Science

Chair(s): Ming Yuan, Georgia Institute of Technology

8:35 am   **Automatic Estimation of Multivariate Spectra via Smoothing Splines—**❖ Ori Rosen, The University of Texas at El Paso; David Stoffer, University of Pittsburgh

8:50 am   **Bayesian Curve Estimation with Overcomplete Wavelet Dictionary—**❖ Jen-hwa Chu, Duke University; Merlise Clyde, Duke University; Feng Liang, Duke University

9:05 am   **Bayesian LAGO for Statistical Detection Problems—**❖ Wanhua Su, University of Waterloo; Mu Zhu, University of Waterloo; Hugh A. Chipman, Acadia University

9:20 am   **Avoiding Bias from Feature Selection in Classification and Regression Models—**❖ Longhai Li, University of Toronto; Jianguo Zhang, University of Toronto; Radford Neal, University of Toronto

9:35 am   **Dose-Schedule Finding in Phase I/II Clinical Trials Using Bayesian Isotonic Transformation—**❖ Yisheng Li, M. D. Anderson Cancer Center; Nebiyou B. Bekele, M. D. Anderson Cancer Center; Yuan Ji, M. D. Anderson Cancer Center; John Cook, M. D. Anderson Cancer Center

9:50 am   **Bayesian Two Stage Optimal Design for Generalized Linear Models—**❖ Ying Zhang, Virginia Tech

10:05 am   **Floor Discussion**

386   CC-613

● ✪ Bayesian Applications to Genetics—Contributed

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Section on Bayesian Statistical Science, Biometrics Section, ENAR

Chair(s): Leanna House, Duke University

8:35 am **The Evolutionary Forest Algorithm**—❖ Scotland Leman, Duke University

8:50 am **Bayesian Inference for Estimating Migration Rate, Mutation Rate, and Population Size in Microsatellite Loci**—❖ Seongho Song, University of Cincinnati; Dipak Dey, University of Connecticut; Kent E. Holsinger, University of Connecticut

9:05 am **Bayesian Discovery of Regulatory Motifs using Reversible Jump Markov Chain Monte Carlo**—❖ Min Li, University of Washington

9:20 am **Detection of Quantitative Trait Loci on Multiple Linkage Groups**—❖ Patrick Gaffney, ImClone Systems

9:35 am **Bayesian Clustering of SNP Genotypes**—❖ Guohua Yan, The University of British Columbia; William J. Welch, The University of British Columbia; Ruben H. Zamar, The University of British Columbia

9:50 am **Bayesian Clustering of Short Temporal Gene Expression Dynamics**—❖ Ling Wang, Boston University; Paola Sebastiani, Boston University; Marco Ramoni, Harvard Medical School

10:05 am **A Bayesian Retrospective Classification Model**—❖ Jingqin Luo, Duke University

387 CC-601
● Sample Survey Quality IV—Contributed
Section on Survey Research Methods

Chair(s): Rita Petroni, U.S. Census Bureau

8:35 am **Changing to Register-Based Statistics**—❖ Anders Wallgren, Statistics Sweden; Britt Wallgren, Statistics Sweden

8:50 am **Longitudinal Evaluation of Point and Variance Estimates in an Establishment Survey after Ratio Imputation**—❖ Adriana Perez, The University of Texas Health Science Center at Houston

9:05 am **Experimental Design for the 2006 American Community Survey Content Test**—❖ Mark Asiala, U.S. Census Bureau; Alfredo Navarro, U.S. Census Bureau

9:20 am **Comparison of Key from Paper and Automated Data Capture in the American Community Survey**—❖ Anthony Tersine, U.S. Census Bureau; Donald Keathley, U.S. Census Bureau

9:35 am **A Comparison of Two Ratio Edit Methods for the Annual Survey of Government Finances**—❖ Elizabeth Cornett, U.S. Census Bureau; Joanna F. McLaughlin, U.S. Census Bureau; Carma R. Hogue, U.S. Census Bureau; Stephen D. Owens, U.S. Census Bureau

9:50 am **Evaluation of the Detectability and Inferential Impact of Nonresponse Bias in Establishment Surveys**—❖ Randall Powers, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

10:05 am **A Coverage Profile of Area Frame Blocks on the United States Census Bureau's Master Address File**—❖ Timothy Kennel, U.S. Census Bureau

388 CC-211
● ✪ Cluster Modeling and Cluster Detection—Contributed
Section on Statistics in Epidemiology

Chair(s): Margaret Nemeth, Monsanto Regulatory Sciences

8:35 am **P-Values for the Besag-Newell Cluster Detection Test**—❖ Ronald Gangnon, University of Wisconsin-Madison

8:50 am **On Detecting a Rate Increase Using a Bernoulli-Based Scan Statistic**—❖ Michael Joner, Virginia Polytechnic Institute and State University; William H. Woodall, Virginia Polytechnic Institute and State University; Marion Reynolds, Virginia Polytechnic Institute and State University

9:05 am **Spatial Survival Clusters of Patients Diagnosed with Lung Cancer and Late-Stage Colorectal Cancer in California**—❖ Lan Huang, National Cancer Institute

9:20 am **A Latent Model for Highly Skewed and Grouped Data**—❖ Huichao Chen, Emory University; Amita K. Manatunga, Emory University; Robert Lyles, Emory University; Michele Marcus, Emory University

9:35 am **Local Likelihood Models for Disease Cluster Modeling: a Space-Time Extension**—❖ Monir Hossain, University of South Carolina; Andrew B. Lawson, University of South Carolina

9:50 am **Approximating the Multiple-Width-Window Scan Statistic for Nonuniform Background**—❖ Joseph Naus, Rutgers University

10:05 am **Cluster Analysis Using Methods of Pairwise Weight on Mixed Type Attributes**—❖ William

Warde, Oklahoma State University

389   CC-620
Methodology for Spatial Data—Contributed
Section on Statistics and the Environment, WNAR

Chair(s): Eric Slud, U.S. Census Bureau

8:35 am   **Spatial Multivariate EOFs: Discrete to Continuous Approximations—**❖ Yonggang Yao, The Ohio State University; Noel Cressie, The Ohio State University

8:50 am   **Spatial Designs and Strength of Spatial Signal: Effects on Covariance Estimation—**❖ Kathryn Irvine, Oregon State University; Alix Gitelman, Oregon State University; Jennifer A. Hoeting, Colorado State University

9:05 am   **Spatial Models, Spatial Integrals, and Green's Theorem—**❖ Gary Simon, New York University

9:20 am   **A Variation on Spike-Time Distance Prototypes—**❖ Katherine Tranbarger, Amherst College

9:35 am   **A Method for Multiscale Spatio-Temporal Analysis—**❖ Mary Louie, National Center for Health Statistics

9:50 am   **A Weighting Class Adjustment Estimator in a Continuous Domain—**❖ Breda Munoz, RTI International; Virginia M. Lesser, Oregon State University; Leigh Harrod, Oregon State University

10:05 am   **Floor Discussion**

390   CC-605
● Survey-Based Estimation IV—Contributed
Section on Survey Research Methods

Chair(s): Walter Boyle, RTI International

8:35 am   **Effects of Uncontrolled Factors at the Collection Stage on the Canadian Nutrition Survey—**❖ FranÁois Verret, Statistics Canada; Steven Thomas, Statistics Canada

8:50 am   **Regression Diagnostics for Survey Data—**❖ Jianzhu Li, University of Maryland; Richard Valliant, University of Michigan

9:05 am   **Design Effects in Randomized Experiments Based on Sample Surveys—**❖ K. P. Srinath, Abt Associates Inc.

9:20 am   **Using Census Data to Define Estimation Areas for the American Community Survey: A Case Study—**❖ Joseph Powers, U.S. Census Bureau; Alfredo Navarro, U.S. Census Bureau

9:35 am   **Estimating Birth Counts for Small Geographical Domains Used for Control Totals in Raking Adjustment—**❖ Amang Sukasih, Mathematica Policy Research, Inc.; Donsig Jang, Mathematica Policy Research, Inc.; Mary Edith Bozylinsky, Mathematica Policy Research, Inc.; Barbara L. Carlson, Mathematica Policy Research, Inc.

9:50 am   **Iteration of Second-Stage and Composite Procedures in the Current Population Survey—**❖ Samantha Cruz, Bureau of Labor Statistics; Edwin L. Robison, Bureau of Labor Statistics; Tamara S. Zimmerman, Bureau of Labor Statistics

10:05 am   **Estimation and Reliability Issues of Health Estimates from the Behavioral Risk Factor Surveillance System for U.S. Counties Contiguous to the United States-Mexico Border—**❖ Joe Fred Gonzalez, Jr., National Center for Health Statistics; Machell Town, National Center for Chronic Disease Prevention and Health Promotion; Jay J. Kim, National Center for Health Statistics; Sam Notzon, National Center for Health Statistics; Juan R. Albertorio, National Center for Health Statistics

Invited Sessions 10:30 am–12:20 pm

391   CC-4C-4
● ✪ Noether Award Invited Session—Invited
Noether Award Committee, Section on Nonparametric Statistics

Organizer(s): Regina Liu, Rutgers University

Chair(s): Regina Liu, Rutgers University

10:35 am   **Doing Thousands of Hypothesis Tests at the Same Time—**❖ Bradley Efron, Stanford University

11:25 am   **Bayesian Mixed Models for Functional Data—**❖ Jeffrey S. Morris, M. D. Anderson Cancer Center

12:15 pm   **Floor Discussion**

392   CC-607
● ✪ Government Statistical Agencies Are Now Offering Electronic Reporting to Their Respondents, but Is It Worth the Effort?—Invited
Section on Government Statistics

Organizer(s): Robert Lussier, Statistics Canada

Chair(s): Robert Lussier, Statistics Canada

10:35 am   **Qui Bono: Who Benefits from Web Data**

Wednesday

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

	Collection?—❖ Michael D. Levi, Bureau of Labor Statistics
10:55 am	**The Development of Electronic Data Collection Techniques**—❖ Toni R‰ikkˆnen, Statistics Finland
11:15 am	**Statistics Canada's Electronic Data Reporting Experience**—❖ Jocelyn Burgess, Statistics Canada
11:35 am	**Improving the Provider Experience: The Vision for Multi-Modal Data Collection in Australia**—❖ Sean Thompson, Australian Bureau of Statistics
11:55 am	Disc: Thomas L. Mesenbourg, U.S. Census Bureau
12:15 pm	**Floor Discussion**

393   CC-601

● ✪ Bayesian Methods in Cancer Genomics— Invited

WNAR, Biometrics Section, Section on Bayesian Statistical Science, ENAR

Organizer(s): Sonia Jain, University of California, San Diego

Chair(s): Sonia Jain, University of California, San Diego

10:35 am	**Variable Selection in Regression Mixture Modeling for the Discovery of Gene Regulatory Networks**—❖ Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Mayetri Gupta, The University of North Carolina at Chapel Hill
11:00 am	**Variable Selection in Clustering via Dirichlet Process Mixture Models**—❖ Marina Vannucci, Texas A&M University
11:25 am	**Nonparametric Models for Proteomic Peak Identification, Quantification, and Classification**—❖ Merlise Clyde, Duke University; Leanna House, Duke University; Robert Wolpert, Duke University
11:50 am	Disc: Steven N. MacEachern, The Ohio State University
12:10 pm	**Floor Discussion**

394   CC-307

✪ Building Statistical Capacity in Developing Countries—Invited

Committee on International Relations in Statistics, Section on Statistical Education

Organizer(s): Louise Ryan, Harvard School of Public Health

Chair(s): Martha Aliaga, American Statistical Association

10:50 am	**Statistics in Argentina**—❖ Diana Kelmansky, University of Buenos Aires

12:15 pm	**Floor Discussion**

395   CC-611

● Latent Class Models for Disease Classification—Invited

ENAR, Biometrics Section, WNAR

Organizer(s): Rebecca Betensky, Harvard School of Public Health

Chair(s): Rebecca Betensky, Harvard School of Public Health

10:35 am	**Diagnosing Sepsis in Patients with SIRS**—❖ Klaus Larsen, University of Copenhagen
11:05 am	**Penalized Latent Class Methods for Disease Classification**—❖ Andres Houseman, Harvard School of Public Health; Brent A. Coull, Harvard School of Public Health; Rebecca Betensky, Harvard School of Public Health
11:35 am	**Latent Class Measurement of Frailty and Dysregulation in Older Adults**—❖ Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health
12:05 pm	**Floor Discussion**

396   CC-206

Semiparametric Inference in Practice—Invited

IMS, Section on Nonparametric Statistics

Organizer(s): Florentina Bunea, Florida State University

Chair(s): Florentina Bunea, Florida State University

10:35 am	**Semiparametric Approaches To Model the Survival and Longitudinal Data Simultaneously**—❖ Jane-Ling Wang, University of California, Davis; Jimin Ding, University of California, Davis; Fushing Hsieh, University of California, Davis
11:05 am	**Semiparametric Models with Data Missing by Design and Inverse Probability Weighted Empirical Processes: Partial Results and Open Problems**—❖ Jon A. Wellner, University of Washington
11:35 am	**Statistical Inference for Variable Importance**—❖ Mark van der Laan, University of California, Berkeley
12:05 pm	**Floor Discussion**

397   CC-308

● Balanced Sampling—Invited

SSC

Organizer(s): Pierre LavallÈe, Statistics Canada

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Chair(s): Pierre LavallÈe, Statistics Canada

10:35 am	**Balanced Sampling by Means of the Cube Method**—❖ Yves TillÈ, University of Neuch,tel
11:00 am	**Stochastic Imputation Using Balanced Sampling**—❖ Jean-Claude Deville, CREST/ENSAI
11:25 am	**Use of Balanced Sampling in the Framework of the Master Sample for French Household Surveys**—❖ Marc Christine, Institut National de la Statistique et des …tudes …conomiques
11:50 am	**Sampling and Estimation Strategies for the Canadian Unincorporated Business Population**—❖ Wisner Jocelyn, Statistics Canada
12:15 pm	**Floor Discussion**

398 — CC-608
Statistical Challenges in Analyzing Highly Stratified Data—Invited

Biometrics Section, WNAR

Organizer(s): Bhramar Mukherjee, University of Florida

Chair(s): Bhramar Mukherjee, University of Florida

10:35 am	**Semiparametric Transformation Models with Random Effects for Highly Stratified Survival Data**—❖ Danyu Lin, The University of North Carolina at Chapel Hill
11:00 am	**Connections between Bayesian and Conditional Inference in Matched Studies**—❖ Kenneth Rice, University of Washington
11:25 am	**Model-Based Profile Confidence Intervals for Stratified Contingency Tables**—❖ Joseph B. Lang, The University of Iowa
11:50 am	**Fixed-Effects Models for Longitudinal Binary Data with Drop-Outs Missing at Random**—❖ Paul Rathouz, The University of Chicago
12:15 pm	**Floor Discussion**

399 — CC-401
● Human Perception and Statistical Graphics—Invited

Section on Statistical Graphics, Section on Statisticians in Defense and National Security

Organizer(s): Naomi B. Robbins, NBR

Chair(s): Naomi B. Robbins, NBR

10:35 am	**Attention, Consciousness, and Data Display**—❖ Ronald A. Rensink, The University of British Columbia

11:05 am	**Perception of Scene Spatial Layout and Complex Visual Displays**—❖ Aude Oliva, Massachusetts Institute of Technology
11:35 am	**Toward Integrating Perception, Cognition, and Visual Statistical Analytics in Quantitative Visualization**—❖ Daniel B. Carr, George Mason University
12:05 pm	**Floor Discussion**

400 — CC-400
● ✪ Haplotype Analysis—Invited

Section on Risk Analysis, ENAR

Organizer(s): Ingo Ruczinski, The Johns Hopkins University

Chair(s): Hua Tang, Fred Hutchinson Cancer Research Center

10:35 am	**Haplotype Analysis in Related Individuals**—❖ Hongyu Zhao, Yale University; Ning Sun, Yale University
11:00 am	**A Comparison of Haplotype-Based and Tree-Based SNPs Imputation in Association Studies**—❖ James Y. Dai, University of Washington; Ingo Ruczinski, The Johns Hopkins University; Michael LeBlanc, Fred Hutchinson Cancer Research Center; Charles Kooperberg, Fred Hutchinson Cancer Research Center
11:25 am	**Haplotype and SNP Analyses in Genetic Epidemiology with Application to Longitudinal Data**—❖ M. Daniele Fallin, Johns Hopkins Bloomberg School of Public Health; Kelly S. Benke, Johns Hopkins Bloomberg School of Public Health
11:50 am	Disc: Nilanjan Chatterjee, National Cancer Institute
12:10 pm	**Floor Discussion**

401 — CC-201
● Bayesian Hierarchical Modeling of Exposure Pathways—Invited

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

Organizer(s): Noel Cressie, The Ohio State University

Chair(s): Noel Cressie, The Ohio State University

10:35 am	**Regional Spatial Modeling of Toxic Metals in Various Environmental Media**—❖ Catherine A. Calder, The Ohio State University
11:00 am	**Characterizing Human Exposure to Toxic Metals Using a Bayesian Pathways Model**—❖ Nancy J.

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McMillan, Battelle

11:25 am **Computational Strategies for Fitting and Learning from Complex Bayesian Hierarchical Models**—❖ Peter F. Craigmile, The Ohio State University

11:50 am Disc: Louise Ryan, Harvard School of Public Health

12:10 pm **Floor Discussion**

Invited Panels 10:30 am–12:20 pm

402 — CC-2B
● Statistical Consulting for Clinical Research—Invited

Section on Statistical Consulting, Section on Statistical Education

Organizer(s): Jeff Sloan, Mayo Clinic College of Medicine

Chair(s): Joseph Cappelleri, Pfizer Inc.

Panelists:
- ❖ Jeff Sloan, Mayo Clinic College of Medicine
- ❖ Todd Nick, Cincinnati Children's Hospital Medical Center
- ❖ Felicity B. Enders, Mayo Clinic College of Medicine
- ❖ Michael Griswold, Johns Hopkins Bloomberg School of Public Health

12:15 pm **Floor Discussion**

Topic-Contributed Sessions 10:30 am–12:20 pm

403 — CC-612
● ✪ Statistics for Weather Forecasting I: Challenges and Opportunities—Topic-Contributed

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

Organizer(s): Tilmann Gneiting, University of Washington

Chair(s): Tilmann Gneiting, University of Washington

10:35 am **General Introduction to Weather Prediction**—❖ Clifford Mass, University of Washington

10:55 am **Local Bayesian Model Averaging for Calibrated Weather Forecast Probabilities**—❖ Eric Grimit, University of Washington

11:15 am **Combining Spatial Statistical and Ensemble Information in Probabilistic Weather Forecasts**—

❖ Veronica Berrocal, University of Washington

11:35 am **Use of Uncertainty Information in Deterministic Weather Forecasting Decisions**—❖ Susan Joslyn, University of Washington

11:55 am Disc: Brad Colman, NOAA

12:15 pm **Floor Discussion**

404 — CC-609
Dose-Finding—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Naitee Ting, Pfizer Inc.

Chair(s): Greg C. G. Wei, Pfizer Inc.

10:35 am **Hypothesis Testing and Bayesian Estimation Applied to Sparse Dose Response Designs**—❖ Neal Thomas,

10:55 am **Phase I Studies of Chemotherapeutic Agents in Cancer Patients: a Review of the Designs**—❖ Douglas Potter, University of Pittsburgh

11:15 am **Design and Analysis of Dose-Finding Studies Combining Multiple Comparisons and Modeling Procedures**—❖ Frank Bretz, Novartis Pharma AG; Jose Pinheiro, Novartis Pharmaceuticals Corporation; Bjoern Bornkamp, University of Dortmund

11:35 am **Optimal Dose Response Studies with Potentially Missing Observations**—❖ Weng Kee Wong, University of California, Los Angeles; InYoung Baek, Stony Brook University; Wei Zhu, Stony Brook University

11:55 am **Experimental Design for Experiments with Toxicity and Efficacy Response Functions**—❖ Nancy Flournoy, University of Missouri-Columbia

12:15 pm **Floor Discussion**

405 — CC-204
● Modeling and Adjustment of Economic Time Series—Topic-Contributed

Business and Economics Statistics Section

Organizer(s): Thomas D. Evans, Bureau of Labor Statistics

Chair(s): Thomas D. Evans, Bureau of Labor Statistics

10:35 am **Reference Week Adjustment of Labor Force Series with X-12-ARIMA**—❖ Zhao-Guo Chen, Statistics Canada; Thierno A. Balde, Statistics Canada; Benoit Quenneville, Statistics Canada; Helen Fung, Statistics Canada

10:55 am **Issues in Identifying Easter Effects in Economic**

Wednesday

Time Series—❖ Kellie Wills, U.S. Census Bureau

11:15 am   **A New Time Series Model for Seasonally Adjusting Economic Data with Trend-Cycle Movement and Irregular, Sharply Pronounced Seasonal Fluctuations**—❖ Stephanus Arz, Deutsche Bundesbank

11:35 am   **An ARIMA Model–Based Approach To Estimate Evolving Trading Day Effect**—❖ Xichuan Zhang, Australian Bureau of Statistics; Anna Poskitt, Australian Bureau of Statistics

11:55 am   **Modeling CPS Labor Force Time Series in Selected Metropolitan Areas**—❖ Jennifer Oh, Bureau of Labor Statistics; Richard Tiller, Bureau of Labor Statistics

12:15 pm   **Floor Discussion**

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406   **CC-606**

● ✪ When Disaster Strikes: Responses from the Survey Community—Topic-Contributed

Section on Survey Research Methods, Section on Statisticians in Defense and National Security

Organizer(s): Rachel Harter, NORC

Chair(s): David Banks, Duke University

10:35 am   **Conducting Surveys When Disasters Strike**—❖ Rachel Harter, NORC; Judith Petty, NORC; Jenny Kelly, NORC

10:55 am   **On the Use of Survey Methods in Assessing Large-Scale Human Rights Violations in Conflict Zones: Lessons-Learned from Timor-Leste and Sierra Leone**—❖ Romesh Silva, Human Rights Data Analysis Group; Patrick Ball, Human Rights Data Analysis Group

11:15 am   **Impact of Gulf Hurricanes on the National Immunization Survey**—❖ Kirk Wolter, NORC; James Singleton, Centers for Disease Control and Prevention

11:35 am   **Local Data Coordination and Dissemination in Post-Katrina New Orleans**—❖ Allison Plyer, Greater New Orleans Nonprofit Knowledge Works

11:55 am   Disc: Alan R. Tupek, U.S. Census Bureau

12:15 pm   **Floor Discussion**

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407   **CC-614**

● Statistical Issues in Diagnostic Devices Including ROC Methods—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Organizer(s): R. LakshmiVishnuvajjala, U.S. Food and Drug Administration

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

10:35 am   **ROC Graphs for Assessing the Ability of a Diagnostic Marker To Detect Three Disease Classes with an Umbrella Ordering**—❖ Todd Alonzo, University of Southern California; Christos Nakas, University of the Aegean

10:55 am   **Random Effects Modeling Approaches for Estimating ROC Curves from Repeated Ordinal Tests without a Gold Standard**—❖ Paul S. Albert, NCI

11:15 am   **Diagnostic Imaging Procedures: Defining and Analyzing Test Results To Account for Unknown Disease Loci**—❖ Gene Pennello, U.S. Food and Drug Administration; Brandon D. Gallas, U.S. Food and Drug Administration

11:35 am   **A Model-Free Approach to Combining Diagnostic Markers**—❖ Ruth Pfeiffer, National Cancer Institute; Efstathia Bura, The George Washington University

11:55 am   **Statistical Issues in Diagnostic Devices Including ROC Methods**—❖ R. Lakshmi Vishnuvajjala, U.S. Food and Drug Administration

12:15 pm   **Floor Discussion**

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408   **CC-605**

● Innovative Uses of Longitudinal Panels, Information Documents, and Time-Series Analysis to Study the Impact of the U.S. Tax System—Topic-Contributed

Section on Government Statistics

Organizer(s): Barry Johnson, Internal Revenue Service

Chair(s): Arthur Kennickell, Federal Reserve Board

10:35 am   **Analysis of the Distributions of Income, Taxes, and Payroll Taxes via Cross-Section and Panel Data**—❖ Thomas Petska, Internal Revenue Service; Michael Strudler, Internal Revenue Service; Ryan Petska, Ernst & Young LLP

10:55 am   **Social Security Taxes, Social Security Benefits, and Social Security Benefits Taxation: 2002**—❖ Peter J. Sailer, Internal Revenue Service; Evgenia Lomize, Internal Revenue Service

11:15 am   **Longitudinal Analysis of the Earned Income Tax Credit**—❖ Karen Masken, Internal Revenue Service

Wednesday

11:35 am **The 1999–2003 Individual Income Tax Return Panel: a First Look at the Data**—❖ Michael Weber, Internal Revenue Service

11:55 am **Constructing a Panel of Income and Estate Tax Data for Wealthy Individuals: Creativity and Compromise**—❖ Barry Johnson, Internal Revenue Service; Lisa Schreiber, Internal Revenue Service

12:15 pm **Floor Discussion**

409 CC-211
● ✪ Statistical Phylogenetics—Topic-Contributed

IMS, Biometrics Section, ENAR

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

Chair(s): Laura S. Kubatko, University of New Mexico

10:35 am **A Model of AFLP Evolution and Its Use in Bayesian Estimation of Phylogenies**—❖ Ruiyan Luo, University of Wisconsin-Madison; Bret Larget, University of Wisconsin-Madison

10:55 am **A Random Duplication/Deletion Model in Genome Rearrangement**—❖ Soowan Sohn, University of Wisconsin-Madison; Bret Larget, University of Wisconsin-Madison

11:15 am **Spatially Smoothed Change-Point Processes for Phylogenetic Mapping of Recombination Hot Spots**—❖ Vladimir N. Minin, University of California, Los Angeles; Marc A. Suchard, University of California, Los Angeles; Karin S. Dorman, Iowa State University; Fang Fang, Iowa State University

11:35 am **Reconstructing Posterior Distributions of a Species Phylogeny Using Estimated Gene Tree Distributions**—❖ Liang Liu, The Ohio State University; Dennis K. Pearl, The Ohio State University

11:55 am **Reconstructing Evolutionary Trees Using Amino Acid Substitution Models that Allow Rate Variation to Depend on Spatial Location**—❖ Xueliang Pan, The Ohio State University; Dennis K. Pearl, The Ohio State University; Liang Liu, The Ohio State University; Dennis J. Pollack, The Ohio State University

12:15 pm **Floor Discussion**

410 CC-3B
● ✪ Bayesian Spatial Models—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Paul Speckman, University of Missouri-Columbia

Chair(s): Galin Jones, University of Minnesota

10:35 am **Hierarchical Bayes Estimation of Response Rates with Spatial Correlations**—❖ Xiaoming Gao, Missouri Department of Conservation; Chong He, University of Missouri-Columbia; Dongchu Sun, Virginia Polytechnic Institute and State University/University of Missouri-Columbia

10:55 am **Reference Priors for Gaussian Processes with Spatial Correlation Structure**—❖ Mi Hyun Lee, Virginia Tech; Dongchu Sun, Virginia Polytechnic Institute and State University/University of Missouri-Columbia

11:15 am **Bayesian Spatial-Temporal Smoothing of Cancer Mortality Rates**—❖ Gentry White, University of Missouri-Columbia; Dongchu Sun, Virginia Polytechnic Institute and State University/University of Missouri-Columbia; Paul Speckman, University of Missouri-Columbia

11:35 am **Spatially Adaptive Bayesian Thin-Plate Splines**—❖ Yu Yue,

11:55 am **Bayesian Smoothing of Density Estimation via Hazard Rates**—❖ Luyan Dai, University of Missouri-Columbia

12:15 pm **Floor Discussion**

411 CC-610
Multidimensional Scaling and Manifold Learning—Topic-Contributed

Section on Statistical Computing, IMS, Section on Statisticians in Defense and National Security

Organizer(s): Michael W. Trosset, The College of William & Mary

Chair(s): David W. Scott, Rice University

10:35 am **Parametric Mapping (PARAMAP): an Approach to Nonlinear Mapping**—❖ Ulas Akkucuk, Bogazici University

10:55 am **Metric MDS to Surfaces**—❖ David Johannsen, Naval Surface Warfare Center; Jeffrey L. Solka, Naval Surface Warfare Center

11:15 am **Local Multidimensional Scaling: a Nonlinear Dimension Reduction Method for Data Visualization**—❖ Lisha Chen, University of Pennsylvania; Andreas Buja, University of Pennsylvania

11:35 am **Classical Multidimensional Scaling and Laplacian Eigenmaps**—❖ Michael W. Trosset, The College of William & Mary

11:55 am **Manifold Learning and Dimensionality Reduction**

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for Classification—❖ Alfred Hero, University of Michigan; Raviv Raich, University of Michigan; Jose Costa, California Institute of Technology

12:15 pm **Floor Discussion**

412 CC-205
● Multivariate Control Charts and Other Related Topics—Topic-Contributed

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

Organizer(s): Arthur Yeh, Bowling Green State University

Chair(s): Jane Chang, Bowling Green State University

10:35 am **Single Variables Control Chart: an Overview**—❖ Smiley Cheng, University of Manitoba; Keoagile Thaga, University of Botswana

10:55 am **Multivariate Process Control for Improving Detection of Out-of-Control Conditions**—❖ Amit Mitra, Auburn University

11:15 am **The Multivariate Exponentially Weighted Moving Average**—❖ Steve Rigdon, Southern Illinois University; Nicole Munden, University of Missouri

11:35 am **Monitoring Multivariate Process Variability for Individual Observations**—❖ Baiyau Yeh, Bowling Green State University

11:55 am Disc: Herb McGrath, Bowling Green State University

12:15 pm **Floor Discussion**

Topic-Contributed Panels
10:30 am–12:20 pm

413 CC-2A
● Assessing Student Retention of Essential Statistical Concepts, Issues, and Topics—Topic-Contributed

Section on Statistical Education

Organizer(s): Mark L. Berenson, Montclair State University

Chair(s): Mark L. Berenson, Montclair State University

Panelists: ❖ Leonard Gaines, Empire State Development

❖ Albyn Jones, Reed College

❖ Deborah Rumsey, The Ohio State University

❖ Jessica Utts, University of California, Davis

❖ Karen Kinard, Tallahassee Community College

12:15 pm **Floor Discussion**

Regular Contributed Sessions
10:30 am–12:20 pm

414 CC-602
● Unit Nonresponse in Surveys III—Contributed

Section on Survey Research Methods

Chair(s): Barbara L. Carlson, Mathematica Policy Research, Inc.

10:35 am **A Comparison of a Model-Assisted Estimator and a Model-Based Estimator under Ignorable and Nonignorable Nonresponse**—❖ Jill A. Dever, University of Maryland; Richard Valliant, University of Michigan

10:50 am **Modeling Nonresponse Adjustment Factors**—❖ Hee-Choon Shin, NORC

11:05 am **Use of Propensity Scores To Estimate and Adjust Nonresponse Bias in Complex Surveys**—❖ Leigh Harrod, Oregon State University; Virginia M. Lesser, Oregon State University

11:20 am **Are Refusal Conversions Different from Willing Respondents on Demographic, Cardiovascular, and Sensitve Items? National Health and Nutrition Examination Survey, 1999–2002**—❖ Margaret Carroll, National Center for Health Statistics; Yinong Chong, National Center for Health Statistics

11:35 am **Response Process Models for Unit Nonresponse Adjustment**—❖ Courtney Kies-Bokenkroger, Iowa State University; Sarah M. Nusser, Iowa State University

11:50 am **A Nonresponse Bias Analysis To Inform the Use of Incentives in Multistage Telephone Surveys**—❖ Benjamin Skalland, NORC; Kirk Wolter, NORC; Hee-Choon Shin, NORC; Stephen Blumberg, National Center for Health Statistics

12:05 pm **An Application of Propensity Modeling To Adjust Weights for Nonresponse: Effectiveness of Using Near-Saturated Models**—❖ Stephen R. Williams, Mathematica Policy Research, Inc.; Nuria Tena-Diaz, Mathematica Policy Research, Inc.; Frank Potter, Mathematica Policy Research, Inc.

415 CC-603
● Sample Survey Quality V—Contributed

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Section on Survey Research Methods

Chair(s): Mary March, Statistics Canada

10:35 am	**Efficiently Limiting Census Errors When Quality Control Parameters Range Freely**—❖ Glenn Wolfgang, U.S. Census Bureau
10:50 am	**Precision of Compositional Data in a Stratified Two-Stage Cluster Sample: Comparison of the Swiss Earnings Structure Survey 2002 and 2004**—❖ Monique Graf, Swiss Federal Statistical Office
11:05 am	**Independent School Survey Coverage Study**—❖ Dedrick Owens, U.S. Census Bureau
11:20 am	**Cluster Analysis for Outlier Detection and Its Application in a Large-Scale Survey**—❖ Jianqiang Wang, Iowa State University; Jean D. Opsomer, Iowa State University
11:35 am	**Using Evaluations To Plan and Integrate Survey Programs**—❖ Shawna Waugh, Energy Information Administration
11:50 am	**Modeling Nonsampling Errors in Agricultural Surveys**—❖ James Gentle, George Mason University; Charles R. Perry, National Agricultural Statistics Service; William Wigton, National Agricultural Statistics Service
12:05 pm	**Interviewer Burden and Its Effects on Data Quality in the Swedish Part of the European Social Survey (ESS)**—❖ Lilli Japec, Statistics Sweden

416   CC-3A
Nonparametric Bayesian Methods—Contributed

Section on Bayesian Statistical Science, Section on Nonparametric Statistics

Chair(s): Fabrizio Ruggeri, CNR-IMATI

10:35 am	**Bayesian Analysis for Quantile Regression of Correlated Data**—❖ Chin-Hua Wang, Family Health International; Pai-Lien Chen, Family Health International
10:50 am	**Sequentially Allocated Merge-Split Sampler for Conjugate and Nonconjugate Dirichlet Process Mixture Models**—❖ David Dahl, Texas A&M University
11:05 am	**Fast Nonparametric Bayes Testing of Distribution Changes in Large Datasets**—❖ Michael Pennell, National Institute of Environmental Health Sciences; David B. Dunson, National Institute of Environmental Health Sciences
11:20 am	**On the Random Functional of the Ferguson-**

Dirichlet Process—❖ Thomas J. M. Jiang, National Chengchi University; Kun-Lin Kuo, National Chengchi University

11:35 am	**Bayesian Circular Regression**—❖ Barbara Jane George, U.S. Environmental Protection Agency; Kaushik Ghosh, New Jersey Institute of Technology
11:50 am	**Nonparametric Bayesian Bootstrap in ROC Curve Study**—❖ Jiezhun Gu, North Carolina State University; Subhashis Ghosal, North Carolina State University
12:05 pm	**Floor Discussion**

417   CC-604
● Combining Information, Missing Data, and Hierarchical Bayesian Methods for Health Outcomes Data—Contributed

Section on Health Policy Statistics, Biometrics Section, Section on Bayesian Statistical Science, ENAR

Chair(s): Christopher Schmid, Tufts-New England Medical Center

10:35 am	**When Standard Regression Techniques Fail: the Role of Propensity Score Methods**—❖ Michael Posner, Villanova University; Arlene Ash, Boston University
10:50 am	**Imputaion and Forecasting for State Mortality**—❖ Guanhua Lu, University of Maryland/National Center for Health Statistics; Benjamin Kedem, University of Maryland; Rong Wei, National Center for Health Statistics
11:05 am	**The Impact of Using Different Imputation Methods for Missing Quality-of-Life Scores on the Estimation of the Cost-Effectiveness of Lung Volume Reduction Surgery**—❖ David Blough, University of Washington; Sean Sullivan, University of Washington; Scott Ramsey, Fred Hutchinson Cancer Research Center; Roger Yusen, Washington University School of Medicine
11:20 am	**Combining Information from Various Data Sources To Improve Analyses of Adjuvant Cancer Therapies**—❖ Yulei He, Harvard Medical School; Alan M. Zaslavsky, Harvard Medical School
11:35 am	**Do Teenagers Always Tell the Truth? Bayesian Methods To Estimate the Prevalence of Adolescent Risk Behaviors from Self-Report**—❖ Janet Rosenbaum, Harvard University
11:50 am	**Bayesian Simultaneous Intervals for Small Areas: an Application to Variation in Maps**—❖ Erik B.

Erhardt, University of New Mexico; Balgobin Nandram, Worcester Polytechnic Institute; Jai Choi, National Center for Health Statistics

12:05 pm **Spatial Statistical Methods for Small-Area Health Data with Application to the Association of Breast Cancer Incidence and Local Power Plant Emissions**—❖ Heather Watson, ; Judith D. Goldberg, New York University School of Medicine; Mengling Liu, New York University School of Medicine

418 CC-613
● ✪ Bioinformatics—Contributed
Section on Statistical Computing, Biometrics Section, ENAR

Chair(s): Jie Ding, GlaxoSmithKline

10:35 am **Linker DNA Length Preference in Human Chromatin Revealed by a Two-State Duration Hidden Markov Model**—❖ Guei-Feng Tsai, Northwestern University; Ji-Ping Wang, Northwestern University; Jonathan Widom, Northwestern University

10:50 am **A Systematic Benchmark of Dimension Reduction in Remote Homology Detection with Support Vector Machines.** —❖ Melissa M. Matzke, Pacific Northwest National Laboratory; Bobbie-Jo Webb-Robertson, Pacific Northwest National Laboratory; Christopher S. Oehmen, Pacific Northwest National Laboratory; Jorge F. Reyes Spindola, Pacific Northwest National Laboratory

11:05 am **Using Microarray Gene-Coexpression Networks To Increase Gene Screening Validation Success and To Build Accurate Classifiers**—❖ Wei Zhao, University of California, Los Angeles; Steve Horvath, University of California, Los Angeles; Paul Mischel, University of California, Los Angeles; Aldons J. Lusis, University of California, Los Angeles; Stanley Nelson, University of California, Los Angeles

11:20 am **ANOVA Model-Based Pattern Recognition Technique**—❖ Yushu Liu, University of Kentucky; R. Lakshman Chelvarajan, University of Kentucky; Thomas Getchell, University of Kentucky; Subbarao Bondada, University of Kentucky; Arnold J. Stromberg, University of Kentucky

11:35 am **Canonical Parallel View and Adjustment for the Difference between Paired High-Dimensional Datasets**—❖ Xuxin Liu, The University of North Carolina at Chapel Hill

11:50 am **ProMAT: Protein Microarray Analysis Tool**—❖ Amanda M. White, Pacific Northwest National Laboratory; Don S. Daly, Pacific Northwest National Laboratory; Susan S. Varnum, Pacific Northwest National Laboratory; Kevin K. Anderson, Pacific Northwest National Laboratory; Nikki Bollinger, Pacific Northwest National Laboratory; Rachel M. Gonzalez, Pacific Northwest National Laboratory; Richard C. Zangar, Pacific Northwest National Laboratory

12:05 pm **Uncertainty in Clustering Posterior Distributions of Gene Expression Levels Using MCMC Samples**—❖ Tanzy Love, Carnegie Mellon University

419 CC-309
● Nonparametric Statistics with Censored Data—Contributed
Section on Nonparametric Statistics, ENAR

Chair(s): Sarah Baraniuk, The University of Texas School of Public Health

10:35 am **Nonparametric Siginficance Tests for Sums of Censored Random Variables**—❖ Golde Holtzman, Virginia Tech; Carl E. Zipper, Virginia Tech

10:50 am **Nonparametric Tests for Covariate Effects with Multistate Survival Data**—❖ Limin Peng, Emory University; Jason P. Fine, University of Wisconsin-Madison

11:05 am **Estimation for Two-Sample, Location-Scale Models under Type I Censorship**—❖ Xuewen Lu, University of Calgary

11:20 am **Nonparametric Maximum Likelihood Estimation of Hazard Function under Shape Restrictions**—❖ Desale Habtzghi, University of Georgia; Mary Meyer, University of Georgia; Somnath Datta, University of Louisville

11:35 am **Inference on the Quantile Function under Left Truncation and Right Censoring**—❖ Sana Buhamra, Kuwait University; Noriah Al-Kandari, Kuwait University

11:50 am **Empirical Likelihood Method for Heteroscedastic Linear Model**—❖ Hua Zhu, University of Kentucky; Mi-Ok Kim, University of Kentucky; Mai Zhou, University of Kentucky

12:05 pm **Empirical Likelihood and Marginal Confidence Interval**—❖ Mi-Ok Kim, University of Kentucky

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420   CC-310

Time Series and Temporal Correlation with Regression Applications—Contributed

Section on Physical and Engineering Sciences, Section on Statistics and the Environment

Chair(s): Stephan Sain, University of Colorado at Denver and Health Sciences Center

10:35 am   **Spectral Analysis of Nonstationary Time Series with Piece-Wise Monotonic Time-Varying Frequencies—**❖ Md. Jobayer Hossain, Southern Methodist University; Wayne A. Woodward, Southern Methodist University; Henry L. Gray, Southern Methodist University

10:50 am   **Nonparametric Kernel Estimates of Autocorrelation Structure from Single-Molecule Experimental Data—**❖ Tingting Zhang, Harvard University; Samuel Kou, Harvard University

11:05 am   **Exploring Statistical Correlations among Nonlinear Time Series/Signals—**❖ Carolyn Morgan, Hampton University; Morris H. Morgan, Hampton University

11:20 am   **Wavelet Variance Analysis for Random Fields—**❖ Debashis Mondal, University of Washington; Donald B. Percival, University of Washington

11:35 am   **Wavelet-Based Estimation of Linear Regression Models with Two Errors: a Long Memory and a White Noise—**❖ Kyungduk Ko, Boise State University

11:50 am   **Calibrating OLS Estimators in Linear Regression with Long Memory Error—**❖ Jaechoul Lee, Boise State University; Kyungduk Ko, Boise State University

12:05 pm   **On Improved Estimation in Linear Regression with Long Memory Errors—**❖ Mohamedou Ould Haye, Carleton University; A. K. Saleh, Carleton University

421   CC-615

● QTL Analysis and Mapping—Contributed

Biometrics Section

Chair(s): Haiyan Wang, Kansas State University

10:35 am   **Strategies for Fine Mapping of QTL in Complex Pedigrees Using Combined Linkage and Linkage Disequilibrium Method—**❖ Natascha Vukasinovic, Monsanto Company; Fengxing Du, Monsanto Company

10:50 am   **A New Statistical Model for Dissecting the**

Genetic Basis of Heterosis through Multiple Interval Mapping (MIM) in Design III Populations—❖ Antonio A. F. Garcia, Escola Superior de Agricultura "Luis de Queiroz"; Zhao-Bang Zeng, Bioinformatics Research Center

11:05 am   **A semi-parametric approach for functional genetic mapping of long-term HIV dynamics—**❖ Song Wu, University of Florida; Jie Yang, University of Florida; Rongling Wu, University of Florida

11:20 am   **A Semiparametric Approach to K Mixtures of Two Components with Application to the Mapping of Quantitative Trait Loci—**❖ Shiju Zhang, The University of Toledo; Biao Zhang, The University of Toledo; Grier P. Page, The University of Alabama at Birmingham

11:35 am   **Functional Mapping of Time-Warped Developmental Trajectories Based on B-Splines—**❖ Xueli Liu, University of Florida; Rongling Wu, University of Florida

11:50 am   **Combining QTL Analysis and Bayesian Network Discovery Methods To Determine Genetic Relationships in a Micorarray/Marker Dataset—**❖ Christine W. Duarte, North Carolina State University; Zhao-Bang Zeng, Bioinformatics Research Center

12:05 pm   **A Statistical Approach for Genome-Wide Scan and Testing Imprinted Quantitative Trait Loci—**❖ Yuehua Cui, Michigan State University

422   CC-617

● The Cox Model and Methods for Recurrent Events—Contributed

Biometrics Section, ENAR

Chair(s): Huichao Chen, Emory University

10:35 am   **Methods To Distinguish between the Cox's and Aalen's Model for Right-Censored Data—**❖ Yinghua Zhang, Medical College of Wisconsin; John Klein, Medical College of Wisconsin

10:50 am   **Asymptotic Theory for the Proportional Hazards Model with Random Effects—**Anthony C. Gamst, University of California, San Diego; ❖ Michael Donohue, University of California, San Diego; Ronghui Xu, University of California, San Diego

11:05 am   **Comparing Two Crossing Hazard Rates by Cox Proportional Hazards Modeling—**❖ Kejian Liu, Novartis Pharmaceuticals Corporation;

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Peihua Qiu, University of Minnesota; Jun Sheng, University of Minnesota

11:20 am **Robust Method for Analyzing Recurrent Events Data in the Presence of Terminal Events—**❖ Rajeshwari Sundaram, The University of North Carolina at Charlotte

11:35 am **Estimation of Gap-Time Distribution with Recurrent Event Data under an Informative Monitoring Period—**❖ Akim Adekpedjou, University of South Carolina; Edsel A. Pena, University of South Carolina

11:50 am **Floor Discussion**

423   CC-619
● Binary Data—Contributed
Biopharmaceutical Section, Biometrics Section, ENAR

Chair(s): Keith Soper, Merck & Co., Inc.

10:35 am **A Multiplicative Heteroscedasticity Model for Clustered Binary Data—**❖ Mitchell Rosen, Omnicare Clinical Research

10:50 am **Design and Analysis of Active Control Noninferiority Trials with Binary Data—**❖ Yu-Yun Ho, Johnson & Johnson Pharmaceutical R&D; Sudhakar Rao, Johnson & Johnson Pharmaceutical R&D; George Chi, Johnson & Johnson Pharmaceutical R&D

11:05 am **A Note on Sample Size Re-estimation with Interim Binary Data for Double-blind Clinical Trials—**❖ Xiaohui Luo, Merck & Co., Inc.; Peng-Liang Zhao, Kyowa Pharmaceutical, Inc.

11:20 am **More Powerful Analyses of Stratified NonInferiority Trials with Binary Endpoints—**❖ Devan V. Mehrotra, Merck Research Laboratories; William W. B. Wang, Merck Research Laboratories

11:35 am **Estimation of Multiple Response Rates in Clinical Trials with Missing Observations—**❖ Myron Chang, University of Florida

11:50 am **Choice of Working Correlation Structure for a GEE-Based Analysis of Incomplete Longitudinal Binary Data—**❖ Priya Kulkarni, Merck Research Laboratories; Devan V. Mehrotra, Merck Research Laboratories; Xiaoming Li, Novartis Pharmaceuticals Corporation

12:05 pm **Constructing Better Binomial Confidence Intervals by Remembering Three Lessons from Normal Data—**❖ Craig Borkowf, Centers for Disease

Control and Prevention

424   CC-620
● Missing Data—Contributed
Biopharmaceutical Section, Biometrics Section

Chair(s): Soomin Park, Eli Lilly and Company

10:35 am **Statistical Methods To Analyze Incomplete Clinical Trial Data—**❖ Ohidul Siddiqui, U.S. Food and Drug Administration

10:50 am **Mixed Model: an Alternative to LOCF as Primary Analysis—**❖ Cunshan Wang, Pfizer Inc.; Naitee Ting, Pfizer Inc.; Greg C. G. Wei, Pfizer Inc.

11:05 am **Estimating Treatment Effect in Clinical Trials with Disease-Dependant Noncompliance—**❖ Kuenhi Tsai, Vertex Pharmaceuticals Incorporated; Peter Westfall, Texas Tech University; Stephan Ogenstad, Vertex Pharmaceuticals Incorporated; Miles Dunn, Vertex Pharmaceuticals Incorporated

11:20 am **Variability in Visit Times in Clinical Trials and the Implications for a Common Mixed Model for Repeated Measures—**❖ Tristan Massie, U.S. Food and Drug Administration

11:35 am **Using Stochastic Differential Equations for Imputation of Missing Values in Longitudinal Clinical Data—**❖ Naum Khutoryansky, Novo Nordisk

11:50 am **What Is a Suitable Definition of Study Information in Longitudinal Clinical Trials?—**❖ Guoguang Ma, Merck & Co., Inc.; Michael Nessly, Merck Research Laboratories

12:05 pm **A Local Influence Sensitivity Analysis for Incomplete Longitudinal Depression Data—**❖ Shuyi Shen, Eli Lilly and Company; Caroline Beucnkens, Limburgs Universitair Centrum; Craig Mallinckrodt, Eli Lilly and Company; Geert Molenberghs, Limburgs Universitair Centrum

425   CC-203
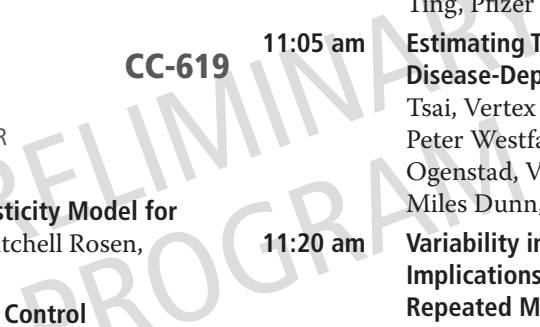### ● Time Series Outliers and Filters—Contributed
Business and Economics Statistics Section

Chair(s): Moon Jung Cho, Bureau of Labor Statistics

10:35 am **Longitudinal Microdata Outlier Detection Techniques—**❖ Eric Simants,

10:50 am **Forecasting and Dynamic Updating of Time Series of Curves—**❖ Haipeng Shen, The University of North Carolina at Chapel Hill; Jianhua Z. Huang,

Wednesday

Texas A&M University

11:05 am **Tests for Changing Mean with Monotonic Power—**❖ Ted Juhl, The University of Kansas

11:20 am **Some Ruin Problems with the Mixture Distribution—**❖ Min Deng, Maryville University

11:35 am **An Asymmetric Information Modeling Framework for Ultra-High-Frequency Transaction Data: a Nonlinear Filtering Approach—**❖ Yoonjung Lee, Harvard University

11:50 am **Variance Change in Time Series ARIMA Models—** ❖ Dongping Fang, SPSS Inc.

12:05 pm **Outlier Detection in Multiple Time Series by Projection Pursuit—**Galeano Pedro, Universidad Santiago de Compostela ; ❖ Daniel PeÒa, Universidad Carlos III de Madrid ; Ruey S. Tsay, The University of Chicago

426 CC-616
● Modeling of Genetic Data—Contributed
Biometrics Section, ENAR

Chair(s): Yi He, University of Minnesota

10:35 am **Likelihood of a Particular Order of Genetic Markers and the Construction of Genetic Maps—** ❖ Susanta Tewari, University of Georgia

10:50 am **Estimating population structure—**❖ Suvajit Samanta, North Carolina State University; Bruce S. Weir, University of Washington

11:05 am **Inference of Dynamic Activity of Transcriptional Modules—**❖ Ron Yu, University of California, San Diego; Jie Liu, University of California, San Diego; Wei Wang, University of California, San Diego

11:20 am **Performance of Phylo-HMM for Evolutionary Conserved Element Detection in Promoter Region—**❖ Xiaodan Fan, Harvard University; Jun Liu, Harvard University

11:35 am **A Mixture Model Approach in Analyzing Genotype-Phenotype Association—**❖ Jason Robarge, Indiana University School of Medicine; Lang Li, Indiana University; David Flockhart, Indiana University School of Medicine

11:50 am **On the Detection of DNA Copy Number Changes—**❖ Jie Chen, University of Missouri-Kansas City; Yu-Ping Wang, University of Missouri-Kansas City

12:05 pm **Including Current Ages in Aggregation and Linkage Analysis of Longevity—**❖ Jeanine Houwing-Duistermaat, Leiden University Medical

Center; Andrea Callegaro, Leiden University Medical Center; Marian Beekman, Leiden University Medical Center; Rudi Westendorp, Leiden University Medical Center; Eline Slagboom, Leiden University Medical Center; Hans van Houwelingen, Leiden University Medical Center

427 CC-618
● Statistical Methods in Genetics—Contributed
Biometrics Section, ENAR

Chair(s): Tracy Bergemann, University of Minnesota

10:35 am **Regional Admixture Mapping and Structured Association Testing: Conceptual Unification Using a General Linear Model—**❖ David Redden, The University of Alabama at Birmingham; Jasmin Divers, The University of Alabama at Birmingham; Kelly Vaughan, The University of Alabama at Birmingham; Hemant Tiwari, The University of Alabama at Birmingham; Mark Beasley, The University of Alabama at Birmingham; Jose R. Fernandez, The University of Alabama at Birmingham; Robert Kimberly, The University of Alabama at Birmingham; Rui Feng, The University of Alabama at Birmingham; Miguel Padilla, The University of Alabama at Birmingham; Nianjun Liu, The University of Alabama at Birmingham; Michael Miller, University of Minnesota; David B. Allison, The University of Alabama at Birmingham

10:50 am **Data Normalization of Stable-Isotope Labeled Peptides in Mass Spectrometry—**❖ Douglas Mahoney, Mayo Clinic College of Medicine; Ann L. Oberg, Mayo Clinic College of Medicine; Jeanette E. Eckel-Passow, Mayo Clinic College of Medicine; Terry M. Therneau, Mayo Clinic College of Medicine; Suresh T. Chari, Mayo Clinic College of Medicine; Unnikrishnan Gopinathan, Mayo Clinic College of Medicine; Lawrence E. Ward, Mayo Clinic College of Medicine; Xuan-Mai T. Persson, Mayo Clinic College of Medicine; Sreekumar Raghavakaimal, Mayo Clinic College of Medicine

11:05 am **A Genome-Wide Study on Transcriptional Regulation of Protein Complex in Saccharomyces Cerevisiae—**❖ Ching-Ti Liu, University of California, Los Angeles; Shinsheng Yuan, University of California, Los Angeles; Ker-Chau Li, University of California, Los Angeles

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

11:20 am   **Comparative Validity and Power of Methods for Association-Testing with Related Individuals—**❖ Hemant Tiwari, The University of Alabama at Birmingham; Amit Patki, The University of Alabama at Birmingham; Mark Beasley, The University of Alabama at Birmingham; David B. Allison, The University of Alabama at Birmingham

11:35 am   **Measuring Deviations from Hardy Weinberg Equilibrium in SNP Data—**❖ Vernon S. Pankratz, Mayo Clinic College of Medicine; Robert Vierkant, Mayo Clinic College of Medicine

11:50 am   **An algorithm for finite Markov Chain Imbedding Approach—**❖ Lung-An Li, Academia Sinica

12:15 pm   **Floor Discussion**

Regular Contributed Posters
10:30 am–12:20 pm

428   **CC-Level 6 East Lobby**
Contributed Posters—Contributed
General Methodology, Section on Bayesian Statistical Science, Section on Statistics in Epidemiology, Biometrics Section, Section on Statistical Computing, Section on Health Policy Statistics, Section on Physical and Engineering Sciences, IMS

Organizer(s): Maura E. Stokes, SAS Institute, Inc.

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Bayesian statistics, hierarchical models

01   The Relative Contribution Measures in Multilevel Modeling—❖ Liyi Cen, University of Pennsylvania; Zhen Chen, University of Pennsylvania; Daniel E. Polsky, University of Pennsylvania; Kevin G. Volpp, University of Pennsylvania

02   Uncertainty Computation for the Virtual Cement and Concrete Testing Laboratory Measurements—❖ Blaza Toman, National Institute of Standards and Technology; Charles Hagwood, National Institute of Standards and Technology; Adriana Hornikova, National Institute of Standards and Technology; Hung-kung Liu, National Institute of Standards and Technology; Nien Fan Zhang, National Institute of Standards and Technology

03   Alternative Methods for Variable Selection in Generalized Linear Models with Binary Outcomes for Incomplete Data—❖ Gang Liu, University of California, Los Angeles

04   Analysis in Opinions about the Death Penalty in U.S. States—❖ Shouhao Zhou, Columbia University; Andrew Gelman, Columbia University

05   Join-Point Analysis of Survival Data—❖ Sandra Hurtado Rua, Northern Illinois University; Sanjib Basu, Northern Illinois University

Biometrics, biostatistics, epidemiology

06   Design-Based Calibration Estimators for Measurement Error in the Cox Model—❖ Thomas Lumley, University of Washington; Pam Shaw, University of Washington

07   ROC Curve Analysis in Osteoporosis Screening—❖ James Powers, The University of North Carolina at Chapel Hill; Margaret Gourlay, The University of North Carolina at Chapel Hill; Kristine Ensrud, V A Medical Center

08   A Soft Endpoint for HIV-1Ba-l Growth in Cervical, Rectal, and Tonsular in vitro Assays—❖ Nicola Richardson-Harman, BioStat Solutions Inc.; James Cummins, Southern Research Institute; Carol Lackman-Smith, Southern Research Institute; Christina Bromley, BioStat Solutions Inc.; Patricia Reichelderfer, National Institute of Child Health & Human Development

09   Feasibility of Genome-Wide Haplotype Association Studies with Small Sample Size and Sparsely Spaced SNPs—❖ Shaokun Chuai, University of Pennsylvania; Nandita Mitra, University of Pennsylvania; Nathan Ellis, The University of Chicago

10   Bayesian State-Space Models for Predicting Temporal Gene Expression Profiles—❖ Yulan Liang, University at Buffalo; Arpad Kelemen, Niagara University

11   Handling Missing Data for Smoking Cessation with Bootstrap, Trees, and Multiple Imputation—❖ Jeff Thostenson, University of Arkansas for Medical Sciences; Lowell C. Dale, Mayo Clinic College of Medicine; Darrell Schroeder, Mayo Clinic College of Medicine; Heike Hofmann, Iowa State University

12   Analysis of Longitudinal Case-Control Zero-Heavy Data: Vaginal Shedding of HIV—❖ Leann Myers, Tulane University; Hao He, Tulane University; Patricia Kissinger, Tulane University

13   SAS Estimation of Standard Errors for Partial Least Squares Regression—❖ April Grant, University of Arkansas for Medical Sciences; David K. Williams, University of Arkansas for Medical Sciences; Zoran Bursac, University of Arkansas for Medical Sciences; Geoffrey M. Curran, University of Arkansas for Medical Sciences

14   Assessment of Capture-Recapture Methods in Estimating Populations of Oklahomans with Birth Defects—❖ Robert C. Wild, The University of Oklahoma

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Health Sciences Center; Barbara Neas, The University of Oklahoma Health Sciences Center

15 Comparing Methods of Examining Trend Data for a Large Population—❖ Kristen Eberly, The University of Oklahoma; Barbara Neas, The University of Oklahoma Health Sciences Center; David M. Thompson, The University of Oklahoma

16 Repeated Measurement of Gastric Myoelectric Activity in Obese Participants—❖ Jiangyue Wang, Penn State

17 Salamander Cannibalism—❖ Jean Ellis, California State University, East Bay; Erica Wildy, California State University, East Bay

18 Determining an Optimal Exposure Metric from a Bivariate Distribution of Asbestos Exposures (Length, Diameter) in a Cohort of South Carolina Textile Workers—❖ Stephen Gilbert, National Institute for Occupational Safety and Health; Leslie T. Stayner, University of Illinois at Chicago; Eileen D. Kuempel, National Institute for Occupational Safety and Health; John D. Dement, Duke University Medical Center

19 Analysis of Respiratory Viral Exposure and Timing of Exposure During Infancy with Development of Childhood Asthma—❖ Pingsheng Wu, Vanderbilt University School of Medicine; Tebeb Gebretsadik, Vanderbilt University School of Medicine ; William Dupont, Vanderbilt University School of Medicine; Marie Griffin, Vanderbilt University School of Medicine; Rachel Enriquez, Vanderbilt University School of Medicine; Kecia Carroll, Vanderbilt University School of Medicine; Tina Hartert, Vanderbilt University School of Medicine

20 Evaluating the Predictiveness of a Continuous Marker in Case-Control Design—❖ Ying Huang, University of Washington; Margaret S. Pepe, Fred Hutchinson Cancer Research Center/University of Washington

21 Variable Selection in the Multivariate Adaptive Regression Splines (MARS)-Logit Models To Detect Gene-Gene Interactions—❖ Huiyi Lin, Louisiana State University Health Sciences Center; Cruz Velasco, Louisiana State University Health Sciences Center; Jennifer J. Hu, Louisiana State University Health Sciences Center

22 A Comparison of Three Categorical Data Analysis Methods Applied to Survey Data—❖ Barbara Neas, The University of Oklahoma Health Sciences Center; Hani Dimassi, The University of Oklahoma Health Sciences Center; David M. Thompson, The University of Oklahoma; Betty J. Pfefferbaum, The University of

Oklahoma Health Sciences Center

23 Discrete Time Analysis of Mortality among Persons with Diabetes Using the Logit Model—❖ Edward Tierney, Centers for Disease Control and Prevention

Bootstrap, resampling methods

24 Permutation Test and Its Application to the Youth Partners in Care (YPIC) Study—❖ Lingqi Tang, University of California, Los Angeles; Naihua Duan, University of California, Los Angeles; Joan Asarnow, University of California, Los Angeles

25 Comparison of Resampling Methods to Least Squares and Maximum Likelihood Methods for Estimating Fracture Strength Parameters of Glass Test Specimens— ❖ Gerald Shaughnessy, University of Dayton; Peter Hovey, University of Dayton

26 Stepwise Permutation Tests Using Medians—❖ Scott Richter, The University of North Carolina at Greensboro; Melinda McCann, Oklahoma State University

Neuroscience, brain imaging

28 Surface Shape Analysis with an Application to Brain Cortical Surface Analysis in Schizophrenia—❖ Christopher Brignell, University of Nottingham; Ian Dryden, University of Nottingham; William Browne, University of Nottingham

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Speaker with Lunch 12:30 pm–1:50 pm

429　　　　　　　　　　　　　　　　**CC-4C-1**

Health Policy Statistics Speaker with Lunch (fee event)—Speaker with Lunch

Section on Health Policy Statistics

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

WL08 Mapping and Applications in Spatio-Temporal Public Health Data—❖ Bradley P. Carlin, University of Minnesota

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Roundtables with Lunch 12:30 pm–1:50 pm

430　　　　　　　　　　　　　　　　**CC-4C-2**

Biopharmaceutical Section Roundtables with Lunch (fee event)

Biopharmaceutical Section, Section on Statistical Consulting, Section on Statistical Graphics

Organizer(s): Amit Bhattacharyya, GlaxoSmithKIine

Wednesday

WL09   Procedures for Controlling the False Discovery Rate in the Multiple Comparison Problems Involving Multiple Endpoint Tests in Clinical Trials—❖ Arunava Chakravartty, University of California, Riverside

WL10   Bayesian Approaches to Clinical Trials—❖ Dinesh Kumar, Eisai Medical Research

WL11   How Can Statisticians Better Contribute to Clinical Trials and Intervention Studies in Developing Countries?—❖ Craig Borkowf, Centers for Disease Control and Prevention

WL12   Use of Propensity Scoring in Clinical Trials—❖ Daniel P. Reyner, Zimmer, Inc.

WL13   Increasing the Usage of Data from Cross-Over Studies—❖ Yonghua Wang, Bristol-Myers Squibb Company

WL14   Statistical Methods for Optimization of Development of Combination Products—❖ Timothy Montague, GlaxoSmithKline

WL15   How To Explain Complex Statistical Methods to Life Scientists—❖ Vadim Kutsyy, Cytokinetics, Inc.

WL16   R-Based Data Analysis and Graphics Applications for Scientists: Moving beyond Excel—❖ Bert Gunter, Genentech, Inc.

WL17   Translational Medicine: from R to D and from D to R—❖ Chi-Hse Teng, Pfizer Inc.; Patricia English, Pfizer Inc.

WL18   Proof of Concept Studies—❖ Robert Smith, Bristol-Myers Squibb Company

WL19   Sensitivity Analysis for Missing Data in Clinical Trials—❖ Jie Zhang, Novartis Pharmaceuticals Corporation

WL20   Analysis of Cell-Based, High-Content Imaging Data—❖ Shuguang Huang, Eli Lilly and Company

WL21   Interval Censored Time-to-Event Data: Examples, Analyses, and Assumptions—❖ Daohai Yu, Duke University

431   CC-4C-2
Business and Economics Statistics Section Roundtable with Lunch (fee event)
Business and Economics Statistics Section

Organizer(s): David Dickey, North Carolina State University

WL22   Economic Aspects of Alternative Energy—❖ Margaret F. Land, TeXas Environmental Studies and Analysis, LLC

432   CC-4C-2
Section on Statistical Computing Roundtables with Lunch (fee event)
Section on Statistical Computing

Organizer(s): Edward Wegman, George Mason University

WL23   S-PLUS and R: Working Together?—❖ Tim C. Hesterberg, Insightful Corporation

433   CC-4C-3
Section on Statistical Consulting Roundtable with Lunch (fee event)
Section on Statistical Consulting

Organizer(s): Phillip Chapman, Colorado State University

WL24   Statistical Consulting in (and around) the Bayesian Paradigm—❖ Alix Gitelman, Oregon State University

434   CC-4C-3
Section on Statisticians in Defense and National Security Roundtable with Lunch (fee event)
Section on Statisticians in Defense and National Security, Section on Statistical Consulting

Organizer(s): Lara S. Schmidt, RAND Corporation

WL25   Defense-Related Consulting Projects—❖ John Crown, RAND Corporation

435   CC-4C-3
Section on Statistical Education Roundtables with Lunch (fee event)
Section on Statistical Education

Organizer(s): Patti Collings, Brigham Young University

WL26   Analogies and Other Strategies To Help Students Use Intuition To Understand Concepts—❖ Lawrence M. Lesser, The University of Texas at El Paso

WL27   How I Use the ARTIST Web Site in My Teaching—❖ John Holcomb, Jr., Cleveland State University

436   CC-4C-3
Section on Statistics in Epidemiology Roundtable with Lunch (fee event)
Section on Statistics in Epidemiology

Organizer(s): Jennifer Clark Nelson, Group Health Cooperative

WL28   Relative Risk Regression as an Alternative to Logistic Regression in Cross-Sectional and Longitudinal Studies—❖ Richard Kronmal, University of Washington

437   CC-4C-3
Section on Government Statistics Roundtable with Lunch (fee event)

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Section on Government Statistics

Organizer(s): Roberta Sangster, Bureau of Labor Statistics

WL29 Journal of Empirical Research on Human Research Ethics—❖ Joan E. Sieber, California State University, East Bay

438 — CC-4C-3
Section on Statistical Graphics Roundtable with Lunch (fee event)

Section on Statistical Graphics

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

WL30 Biostatistical Graphics: Large, Weak Datasets—❖ Thomas Lumley, University of Washington

439 — CC-4C-3
Section on Quality and Productivity Roundtable with Lunch (fee event)

Organizer(s): William R. Myers, Proctor & Gamble

WL31 Communicating Statistics to Nonstatisticians in Industry—❖ Philip Scinto, The Lubrizol Corporation

440 — CC-4C-3
Section on Risk Analysis Roundtable with Lunch (fee event)

Section on Risk Analysis

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

WL32 Results of a Post-Katrina Survey of New Orleans Residents—❖ David Banks, Duke University

441 — CC-4C-3
Section on Survey Research Methods Roundtables with Lunch (fee event)

Section on Survey Research Methods

Organizer(s): Steven G. Heeringa, University of Michigan

WL33 Survey Research and Its Role in Improving the Health and Lives of the World's Poor—❖ David J. Fitch, Universidad del Valle de Guatemala

WL34 Cross-Cultural Issues in Survey Research—❖ Peter P. Mohler, ZUMA

442 — CC-4C-3
Social Statistics Section Roundtable with Lunch (fee event)

Social Statistics Section

Organizer(s): Allen Schirm, Mathematica Policy Research, Inc.

WL35 The Next Survey Imperative: Being Proactive on Privacy—❖ Gerald Gates, U.S. Census Bureau

443 — CC-4C-3
Section on Teaching Statistics in the Health Sciences Roundtable with Lunch (fee event)

Section on Teaching Statistics in the Health Sciences

Organizer(s): Patrick Tarwater, The University of Texas Health Science Center at Houston

WL36 Distance Teaching and Learning in the Health Sciences—❖ T. Robert Harris, The University of Texas at Dallas

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Invited Sessions 2:00 pm–3:50 pm

444 — CC-617
JASA Applications and Case Studies Invited Session—Invited

JASA, Applications and Case Studies, Section on Nonparametric Statistics

Organizer(s): Mark S. Kaiser, Iowa State University

Chair(s): Mark S. Kaiser, Iowa State University

2:05 pm **Model-Assisted Estimation of Forest Resources with Generalized Additive Models**—❖ Jean D. Opsomer, Iowa State University; F. Jay Breidt, Colorado State University; Gretchen Moisen, U.S. Forest Service; Goeran Kauermann, Universitaet Bielefeld

2:40 pm Disc: David Ruppert, Cornell University

2:55 pm Disc: Roderick J. Little, University of Michigan

3:10 pm Disc: Mary C. Christman, University of Florida

3:35 pm **Floor Discussion**

445 — CC-211
New Methods for Modeling Choice in Marketing—Invited

Section on Statistics and Marketing

Organizer(s): Andrew Ainslie, University of California, Los Angeles

Chair(s): Andrew Ainslie, University of California, Los Angeles

2:05 pm **Structural Estimation of Retail Demand and Inventory Decisions**—❖ Andres Musalem, The Wharton School of the University of Pennsylvania

2:55 pm **Estimating Willingness To Pay with Random Coefficient Models**—❖ Garrett Sonnier,

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

University of California, Los Angeles

3:45 pm   **Floor Discussion**

446   CC-606
Nonparametric Inference—Invited
IMS, Section on Nonparametric Statistics

Organizer(s): Tony Cai, University of Pennsylvania

Chair(s): Jiashun Jin, Purdue University

2:05 pm   **Statistical Inference for Evolving Periodic Functions—**❖ Peter G. Hall, Australian National University

2:25 pm   **On Nonparametric Confidence Sets—**❖ Tony Cai, University of Pennsylvania; Mark Low, University of Pennsylvania

2:50 pm   **Nonparametric Estimation of Eigenvectors—**❖ Iain Johnstone, Stanford University

3:15 pm   **Adaptive Generalized Likelihood Inferences for Additive Models—**❖ Jianqing Fan, Princeton University; Jiancheng Jiang, Princeton University

3:40 pm   **Floor Discussion**

447   CC-604
● Split-Plot Designs and Response Surface Analysis: the Interface—Invited
Section on Quality and Productivity, Section on Physical and Engineering Sciences

Organizer(s): Martha Gardner, GE Global Research

Chair(s): Martha Gardner, GE Global Research

2:05 pm   **A Bayesian Approach to the Analysis of Split-Plot Experiments—**❖ Peter Goos, Universiteit Antwerpen; Steven G. Gilmour, Queen Mary, University of London

2:30 pm   **Randomization-Based Analysis of Multistratum Response Surface Designs—**❖ Steven G. Gilmour, Queen Mary, University of London

2:55 pm   **Testing for Lack-of-Fit in Split Plot Response Surface Models—**❖ Scott Kowalski, Minitab Inc.; Geoff Vining, Virginia Polytechnic Institute and State University

3:20 pm   **Standard Error Calculations for Estimators of Regression Coefficients in Split Plot Designs—** Shaun Wulff, University of Wyoming; ❖ Timothy Robinson, University of Wyoming; Christine M. Anderson-Cook, Los Alamos National Laboratory

3:45 pm   **Floor Discussion**

448   CC-3B
● Adaptive Designs in Clinical Trials—Invited
Biopharmaceutical Section, ENAR, WNAR

Organizer(s): Sue-Jane Wang, U.S. Food and Drug Administration

Chair(s): Kao-Tai Tsai, Organon

2:05 pm   **Weighted and Unweighted Z-tests in Sample Size Re-estimation—**❖ Kuang-Kuo G. Lan, Johnson & Johnson Pharmaceutical R&D

2:30 pm   **Considerations in Use of Adaptive Designs in Drug Development—**❖ Hsien-Ming Hung, U.S. Food and Drug Administration

2:55 pm   **Adaptive Designs in Clinical Trials—**❖ Yu Shen, M. D. Anderson Cancer Center

3:20 pm   Disc: Sue-Jane Wang, U.S. Food and Drug Administration

3:40 pm   **Floor Discussion**

449   CC-4C-4
● ✪ A Tribute to Yehuda Vardi—Invited
Memorial, IMS, Section on Physical and Engineering Sciences

Organizer(s): Christopher Genovese, Carnegie Mellon University

Chair(s): Daryl Pregibon, Google Labs

2:05 pm   **Statistical Inverse Problems in Active Network Tomography—**❖ Vijay Nair, University of Michigan

2:35 pm   **Fast Functional MRI—**❖ Cun-Hui Zhang, Rutgers University

3:05 pm   **Duration Data: Poisson Process and Bias Correction—**❖ Zhiliang Ying, Columbia University

3:35 pm   **Floor Discussion**

450   CC-607
● New Statistical Methodology for Genomic Applications with Focus on Array CGH and Gene Networks—Invited
ENAR, Biometrics Section, WNAR

Organizer(s): Jeffrey S. Morris, M. D. Anderson Cancer Center

Chair(s): Jeffrey S. Morris, M. D. Anderson Cancer Center

2:05 pm   **A Bayesian Hierarchical Model for Integrating Biological Data—**❖ Shane Jensen, The Wharton School of the University of Pennsylvania

2:35 pm   **A Statistics Method for Array CGH Analysis—**❖ Pei Wang, Fred Hutchinson Cancer Research Center

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

3:05 pm   **On Detecting Chromosomal Aberrations Using Copy Number Data**—Xuesong Yu, University of Washington; Tim Randolph, University of Washington; Hua Tang, Fred Hutchinson Cancer Research Center; ❖ Li Hsu, Fred Hutchinson Cancer Research Center

3:35 pm   **Floor Discussion**

451   CC-608

● ✪ The Role of Administrative Records in 21st-Century Surveys and Censuses—Invited

Social Statistics Section, Section on Health Policy Statistics

Organizer(s): Ronald Prevost, U.S. Census Bureau

Chair(s): Lisa Blumerman, U.S. Census Bureau

2:05 pm   **Methods and File Acquisitions Supporting the Expanded Use of Administrative Records**—❖ Dean Resnick, U.S. Census Bureau

2:30 pm   **Administrative Records and Survey Data Reuse: a Muse on Their Future**—❖ Ronald Prevost, U.S. Census Bureau

2:55 pm   **Why Are Survey Counts of Medicaid Enrollees Lower Than Administrative Enrollment Counts?**—❖ Michael Davern, University of Minnesota; David Baugh, Centers for Medicare and Medicaid Services; Christine Cox, National Center for Health Statistics; Kim Lochner, National Center for Health Statistics

3:20 pm   **Combining Social Program Administrative Data with Census Bureau Survey Data**—❖ Robert Goerge, The University of Chicago

3:45 pm   **Floor Discussion**

452   CC-612

Using Empirical Likelihood Methods in Survey Sampling—Invited

Section on Survey Research Methods, Section on Nonparametric Statistics

Organizer(s): Phillip S. Kott, National Agricultural Statistics Service

Chair(s): Charles R. Perry, National Agricultural Statistics Service

2:05 pm   **Empirical Likelihood Inference from Sample Survey Data**—❖ Jon N. K. Rao, Carleton University; Changbao Wu, University of Waterloo

2:30 pm   **Variance Estimation for Empirical Likelihood Calibration Estimators in Unequal Probability Sampling**—❖ Jae-kwang Kim, Yonsei University

2:55 pm   **Empirical Likelihood Methods for Raking in Complex Surveys**—❖ Randy R. Sitter, Simon

Fraser University; Changbao Wu, University of Waterloo

3:20 pm   Disc: Phillip S. Kott, National Agricultural Statistics Service

3:40 pm   **Floor Discussion**

453   CC-201

● ✪ Advanced Statistical Methods in Psychological Research—Invited

Section on Bayesian Statistical Science, Biometrics Section, ENAR

Organizer(s): Dongchu Sun, Virginia Polytechnic Institute and State University/University of Missouri-Columbia

Chair(s): Dongchu Sun, Virginia Polytechnic Institute and State University/University of Missouri-Columbia

2:05 pm   **Combining Speed and Accuracy To Assess Error-Free Cognitive Processes**—❖ Mark Glickman, Boston University

2:30 pm   **Long-Range Trends and Short-Range Dependencies in Response Time Data**—❖ Mario Peruggia, The Ohio State University; Peter F. Craigmile, The Ohio State University; Trisha Van Zandt, The Ohio State University

2:55 pm   **Hierarchical Bayesian Methods for Models of Memory Processes**—❖ Paul Speckman, University of Missouri-Columbia; Jeff Rouder, University of Missouri-Columbia; Dongchu Sun, Virginia Polytechnic Institute and State University/University of Missouri-Columbia; Jun Lu, American University

3:20 pm   Disc: Jay Myung, Ohio State University

3:40 pm   **Floor Discussion**

454   CC-401

● A Statistician's Summer Reading List: Modern Topics To Check Out—Invited

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

Organizer(s): Paul Roback, St. Olaf College

Chair(s): Paul Roback, St. Olaf College

2:05 pm   **Analyzing DNA Microarrays with Undergraduate Statisticians**—❖ Johanna Hardin, Pomona College; Laura Hoopes, Pomona College; Ryan Murphy, Pomona College

2:30 pm   **An Introduction to Incomplete Data Regression Methods Used in Practice**—❖ Nicholas J. Horton, Smith College; Ken P. Kleinman, Harvard Medical

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

School

2:55 pm	**A Data Mining Reading List**—❖ Richard De Veaux, Williams College
3:20 pm	**Introducing Bayes in a First Statistics Course**—❖ James Albert, Bowling Green State University
3:45 pm	**Floor Discussion**

Topic-Contributed Sessions
2:00 pm–3:50 pm

455 — CC-618
● Recent Advances in Brain Imaging—Topic-Contributed

Biometrics Section, Section on Nonparametric Statistics, ENAR

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

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

2:05 pm	**Modeling State-Related fMRI Activity Using Change Point Theory**—❖ Martin A. Lindquist, Columbia University; Tor D. Wager, Columbia University
2:25 pm	**Wild Bootstrap for Functional Magnetic Resonance Imaging Data**—❖ Hongtu Zhu, Columbia University and New York State Psychiatric Institute; Bradley S. Peterson, Columbia University and New York State Psychiatric Institute
2:45 pm	**Predicting Post-Treatment Brain Activity Using a Bayesian Hierarchical Model**—❖ F. DuBois Bowman, Emory University; Ying Guo, Emory University
3:05 pm	**Power Calculations for Group fMRI Studies Accounting for Arbitrary Design and Temporal Autocorrelation**—❖ Jeanette Mumford, University of Michigan; Thomas Nichols, University of Michigan
3:25 pm	**New Kernel Method on Unit Sphere and Its Application to Brain Imaging**—❖ Moo Chung, University of Wisconsin-Madison
3:45 pm	**Floor Discussion**

456 — CC-614
Measuring, Monitoring, and Evaluating Internal Revenue Service Data—Topic-Contributed

Section on Government Statistics

Organizer(s): Kevin Cecco, Internal Revenue Service

Chair(s): Thomas Petska, Internal Revenue Service

2:05 pm	**Monitoring SOI Samples**—❖ Joseph Koshansky, Internal Revenue Service
2:25 pm	**Measuring Nonsampling Error in Exempt Organization Business Income Tax Data**—❖ Tamara Rib, Internal Revenue Service
2:45 pm	**Customer Satisfaction Initiatives at IRS's Statistics of Income: Using Surveys To Improve Customer Service**—❖ Ruth Schwartz, Internal Revenue Service; Beth Kilss, Internal Revenue Service
3:05 pm	**Performance Measures within the Statistics of Income Division**—❖ Kevin Cecco, Internal Revenue Service
3:25 pm	Disc: John Czajka, Mathematica Policy Research, Inc.
3:45 pm	**Floor Discussion**

457 — CC-308
Visualization of Large Datasets—Topic-Contributed

Section on Statistical Graphics, Section on Statisticians in Defense and National Security

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

Chair(s): Deborah F. Swayne, AT&T Labs-Research

2:05 pm	**Tours of Large Multivariate Data**—❖ Dianne Cook, Iowa State University
2:25 pm	**Visualization of Features in Curve Estimates and Application to Genetic Loci Mapping**—❖ Myung Hee Lee, The University of North Carolina at Chapel Hill; Ivan Rusyn, The University of North Carolina at Chapel Hill; David Threadgill, The University of North Carolina at Chapel Hill; J. Stephen Marron, The University of North Carolina at Chapel Hill
2:45 pm	**Upscaling Statistical Graphics**—❖ Martin Theus, University of Augsburg
3:05 pm	**Visualization of Statistical Models on a Billion Cases**—❖ Graham Wills, SPSS Inc.
3:25 pm	Disc: Antony Unwin, Universität Augsburg
3:45 pm	**Floor Discussion**

458 — CC-204
● Topics in Univariate and Multivariate Time-to-Events Analysis—Topic-Contributed

Section on Bayesian Statistical Science, Biometrics Section, ENAR

Organizer(s): Nalini Ravishanker, University of Connecticut

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Chair(s): Paola Sebastiani, Boston University

2:05 pm **Bayesian Modeling of Multiple Episode Occurrence and Severity with a Terminating Event**—❖ Amy Herring, The University of North Carolina at Chapel Hill

2:25 pm **Bayesian Semiparametric Inference for the Accelerated Failure Time (AFT) Model Using Hierarchical Mixture Modeling with N-IG Priors**— ❖ Alessandra Guglielmi, Politecnico di Milano; Raffaele Argiento, Universit‡ Commerciale Luigi Bocconi/CNR-IMATI; Antonio Pievatolo, CNR-IMATI; Fabrizio Ruggeri, CNR-IMATI

2:45 pm **A Bayesian Dynamic Frailty Model for Recurrent Events**—❖ Changhong Song, University of Connecticut; Lynn Kuo, University of Connecticut

3:05 pm **Multivariate Times-to-Events Analysis for Marketing Data Using Frailty Models**—❖ Nalini Ravishanker, University of Connecticut; V. Kumar, University of Connecticut; Rajkumar Venkatesan, University of Connecticut

3:25 pm **Flexible Models for Quantile Regression**— ❖ Milovan Krnjajic, Lawrence Livermore National Laboratory; Athanasios Kottas, University of California, Santa Cruz

3:45 pm **Floor Discussion**

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459 CC-611

● ✪ **Statistical Approaches to Handling Data Quality: Issues and Evaluating Intervention Effectiveness in HIV/AIDS Research—Topic-Contributed**

Section on Statistics in Epidemiology, Biometrics Section, ENAR

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

Chair(s): Timothy Green, Centers for Disease Control and Prevention

2:05 pm **Assessing Mediation in HIV Intervention Studies**—❖ Felicia Hardnett, Centers for Disease Control and Prevention; Craig Borkowf, Centers for Disease Control and Prevention; Sherri Pals, Centers for Disease Control and Prevention; Ann O'Leary, Centers for Disease Control and Prevention; Jeffrey Parsons, City University of New York-Hunter College; Cynthia Gomez, University of California, San Francisco

2:25 pm **Are Higher Levels of Multilevel (Hierarchical) Models Necessary? Application to High-Risk Sexual Behavior Data**—❖ DeMarc Hickson,

Emory University/Centers for Disease Control and Prevention; Lance Waller, Emory University; Lillian Lin, Centers for Disease Control and Prevention

2:45 pm **How Good Is Good Enough? An Investigation of the Effect of Uncertainty in Survey Parameters on Estimates of HIV Prevalence, Guyana 2004**— ❖ Maxine Denniston, Centers for Disease Control and Prevention; Nicole Seguy, Centers for Disease Control and Prevention; Wolfgang Hladik, Centers for Disease Control and Prevention

3:05 pm **A Multiple-Recapture Approach When a Unique Identifier Is Not Available**—❖ Ruiguang Song, Centers for Disease Control and Prevention; H. Irene Hall, Centers for Disease Control and Prevention; John Gerstle, Centers for Disease Control and Prevention; Lisa Lee, Centers for Disease Control and Prevention

3:25 pm **Floor Discussion**

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460 CC-602

● **Statistical Applications in Water Quality and Monitoring—Topic-Contributed**

Section on Statistics and the Environment

Organizer(s): Keying Ye, The University of Texas at San Antonio

Chair(s): Ilya Lipkovich, Eli Lilly and Company

2:05 pm **Clustering Using Stressor-Response Relationships**—❖ Samantha C. Prins, Virginia Tech; Eric P. Smith, Virginia Polytechnic Institute and State University

2:25 pm **Composite Sampling for Environmental Variables**—❖ Sylvia Esterby, The University of British Columbia; Abdel H. El-Shaarawi, National Water Research Institute

2:45 pm **Modified Power Priors with Multiple Historical Datasets in Water Quality Evaluation**—❖ Yuyan Duan, Bristol-Myers Squibb Company; Keying Ye, The University of Texas at San Antonio; Eric P. Smith, Virginia Polytechnic Institute and State University

3:05 pm **Model-Based Clustering in a Brook Trout Classification Study within the Eastern United States**—❖ Huizi Zhang, Virginia Tech; Samantha C. Prins, Virginia Tech; Eric P. Smith, Virginia Polytechnic Institute and State University

3:25 pm **Nonparametric Harmonic Regression for Estuarine Water Quality Data**—❖ Melanie Autin, University

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

of South Carolina; Don Edwards, University of South Carolina

3:45 pm   **Floor Discussion**

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461   CC-400

● ✪ Statistics for Weather Forecasting II: Challenges and Opportunities—Topic-Contributed

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

Organizer(s): Tilmann Gneiting, University of Washington

Chair(s): Matthew Stephens, University of Washington

2:05 pm   **Probabilistic Forecasting in Meteorology—** ❖ Barbara Brown, National Center for Atmospheric Research

2:25 pm   **Probabilistic Forecasts, Calibration, and Sharpness—** ❖ Fadoua Balabdaoui, Institut für Mathematische Stochastik; Tilmann Gneiting, University of Washington; Adrian E. Raftery, University of Washington

2:45 pm   **Calibrated Probabilistic Forecasting at the Stateline Wind Energy Center: the Regime-Switching Space-Time (RST) Method—** ❖ Tilmann Gneiting, University of Washington; Kristin Larson, 3 Tier Environmental Forecast Group, Inc.; Kenneth Westrick, 3 Tier Environmental Forecast Group, Inc.; Marc G. Genton, Texas A&M University; Eric Aldrich, Duke University

3:05 pm   **Detection and Modeling of Long Memory in Biases of Daily Forecasts of Surface Air Pressure and Temperature—** ❖ Yulia Gel, University of Waterloo; Bovas Abraham, University of Waterloo

3:25 pm   Disc: Wendy Martinez, Office of Naval Research

3:45 pm   **Floor Discussion**

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462   CC-609

● ✪ Reducing the Risk of Data Disclosure through Swapping and Other Masking Procedures—Topic-Contributed

Section on Survey Research Methods, Section on Statisticians in Defense and National Security

Organizer(s): Thomas Krenzke, Westat

Chair(s): Leyla Mohadjer, Westat

2:05 pm   **Reducing the Risk of Data Disclosure through Area Masking: Limiting Biases in Variance Estimation—** ❖ Inho Park, ; Sylvia Dohrmann,

Westat; Jill Montaquila, Westat; Leyla Mohadjer, Westat; Lester R. Curtin, Centers for Disease Control and Prevention

2:25 pm   **Disclosure Limitation in NAEP: a Probabilistic Approach to Swapping Sample Selection—** ❖ David Freund, Educational Testing Service; Andreas Oranje, Educational Testing Service

2:45 pm   **Tactics for Reducing the Risk of Disclosure Using the NCES DataSwap Software—** ❖ Thomas Krenzke, Westat; Stephen E. Roey, Westat; Sylvia Dohrmann, Westat; Leyla Mohadjer, Westat; Wen-Chau Haung, Westat; Steve Kaufman, Retired; Marilyn Seastrom, National Center for Education Statistics

3:05 pm   **Combinations of SDC Methods for Numerical Microdata—** ❖ Anna Oganian, National Institute of Statistical Sciences; Alan Karr, National Institute of Statistical Sciences

3:25 pm   Disc: Jerome Reiter, Duke University

3:45 pm   **Floor Discussion**

Topic-Contributed Panels
2:00 pm–3:50 pm

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463   CC-206

Making Statistical History: Collecting, Preserving, and Providing Access to Records of the American Statistical Community—Topic-Contributed

General Methodology, Section on Statistical Education

Organizer(s): John PaulDeley, Energy Information Administration

Chair(s): John McKenzie, Babson College

Panelists: ❖ John PaulDeley, Energy Information Administration

            ❖ Pat McClellan, American Statistical Association

            ❖ Rich Allen, ASA Committee on Archives and History

3:45 pm   **Floor Discussion**

Regular Contributed Sessions
2:00 pm–3:50 pm

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464   CC-616

● Unit Nonresponse in Surveys IV—Contributed

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Wednesday

Section on Survey Research Methods

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

2:05 pm	**Evaluation of Using a Model-Assisted Sampling Paradigm versus a Traditional Sampling Paradigm in a Nationally Representative Establishment Survey**—❖ Marcus Berzofsky, RTI International; Brandon Welch, RTI International; Rick L. Williams, RTI International; Paul Biemer, RTI International
2:20 pm	**Using Telephone-Exchange Data To Adjust for Nonresponse: Application in an Establishment Survey**—❖ Ronghua Lu, Mathematica Policy Research, Inc.; Stephen R. Williams, Mathematica Policy Research, Inc.
2:35 pm	**Nonresponse Adjustment Using Logistic Regression: To Weight or Not To Weight?**—❖ Eric A. Grau, Mathematica Policy Research, Inc.; Frank Potter, Mathematica Policy Research, Inc.; Stephen R. Williams, Mathematica Policy Research, Inc.; Nuria Diaz-Tena, Mathematica Policy Research, Inc.
2:50 pm	**Response Rates and Response Patterns among New Enterprises: Results from the Kauffman Firm Survey**—❖ Yuhong Zheng, Mathematica Policy Research, Inc.; Frank Potter, Mathematica Policy Research, Inc.; David DesRoches, Mathematica Policy Research, Inc.; Janice Ballou, Mathematica Policy Research, Inc.; Zhanyun Zhao, Mathematica Policy Research, Inc.
3:05 pm	**Estimation of Attrition Biases in SIPP**—❖ Eric Slud, U.S. Census Bureau; Leroy Bailey, U.S. Census Bureau
3:20 pm	**Subsampling Nonrespondents: Issues of Calculating Response Rates**—❖ Sonya Vartivarian, Mathematica Policy Research, Inc.; Sameena Salvucci, Mathematica Policy Research, Inc.; Donsig Jang, Mathematica Policy Research, Inc.; Daniel Kasprzyk, Mathematica Policy Research, Inc.
3:35 pm	**Physician Survey Response Methods Research**—❖ Catharine Burt, National Center for Health Statistics; David Woodwell, National Center for Health Statistics

465   CC-615
● **Survey-Based Variance Estimation II—Contributed**

Section on Survey Research Methods

Chair(s): Yahia Ahmed, Internal Revenue Service

2:05 pm	**Study of Volatility and Smoothing of Estimated Variances in the Employment Cost Index Program**—❖ Meghan S. O'Malley, Bureau of Labor Statistics; Daniell Toth, Bureau of Labor Statistics; Chester Ponikowski, Bureau of Labor Statistics
2:20 pm	**Estimation of Generalized Variance Functions for the 2003 Survey of Doctorate Recipients**—❖ Michael Yang, NORC; Yongyi Wang, NORC
2:35 pm	**Stability of Jackknife Variance Estimates for Prescription Count Estimates over Time Intervals**—❖ Christina Gaughan, IMS Health; Heather Zuleba, IMS Health; Chris Boardman, IMS Health; Kennon Copeland, IMS Health
2:50 pm	**To Replicate (a Weight Adjustment Procedure) or Not To Replicate? An Analysis of the Variance Estimation Effects of a Shortcut Procedure Using the Stratified Jackknife**—❖ Katherine Thompson, U.S. Census Bureau; Wesley Yung, Statistics Canada
3:05 pm	**On Generalized Variance Functions**—❖ Donsig Jang, Mathematica Policy Research, Inc.; Amang Sukasih, Mathematica Policy Research, Inc.; Xiaojing Lin, Mathematica Policy Research, Inc.
3:20 pm	**Generalized Variance Functions To Create Stable and Timely Variance Estimates for Prescription Count Estimates**—❖ Kennon Copeland, IMS Health; Christina Gaughan, IMS Health; Chris Boardman, IMS Health
3:35 pm	**Standard Error Estimation for County-Level Radio Listening**—❖ Mandy Webb; Richard Griffiths, Arbitron Inc.

466   CC-603
● **Studies in Air Quality and Pollution—Contributed**

Section on Statistics and the Environment, WNAR

Chair(s): Jay Ver Hoef, National Marine Mammal Lab

2:05 pm	**Comparing CMAQ to Observations**—❖ Li Chen, The University of Chicago; Michael L. Stein, The University of Chicago
2:20 pm	**A Case Study in Estimating Percentage Detection Biases along a Recorded Ozone Profile**—❖ Wendy Meiring, University of California, Santa Barbara

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

2:35 pm **Statistical conditional simulation of a multiresolution numerical air quality model**—❖ Xiaofeng Shao, The University of Chicago; Michael L. Stein, The University of Chicago

2:50 pm **New Classes of Asymmetric Spatial-Temporal Covariance Models**—❖ Man Sik Park, Colorado State University

3:05 pm **Multivariate Spatio-Temporal Model for Speciated Fine Particle Matter**—❖ Jungsoon Choi, North Carolina State University; Montserrat Fuentes, North Carolina State University; Brian Reich, North Carolina State University

3:20 pm **Fast and Flexible Statistical Techniques for the Analysis of Space-Time Data with Complex Structures**—Dana Draghicescu, City University of New York-Hunter College; ❖ Michael Porter, City University of New York

3:35 pm **Statistical Challenges in Comparisons of Measured Indoor and Outdoor Exposures in an Urban Setting**—❖ Sorina Eftim, Johns Hopkins Bloomberg School of Public Health; Alison Geyh, Johns Hopkins Bloomberg School of Public Health; Patrick Breysse, Johns Hopkins Bloomberg School of Public Health

467   CC-610
Quality Measures for Human Populations—Contributed

Social Statistics Section, Section on Health Policy Statistics

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

2:05 pm **Individuals with Disabilities: How They Impact Research**—❖ Larry Featherston, University of Arkansas

2:20 pm **Statistical Methodology for Longitudinal Social Network Data**—❖ Anton Westveld, University of Washington; Peter Hoff, University of Washington

2:35 pm **Testing for Differential Responses in a Multiple Category Scale: a Case Study on Self-Rated Health among Foreign- and Native-Born Asian Americans**—❖ Elena Erosheva, University of Washington; Emily C. Walton, University of Washington; David T. Takeuchi, University of Washington

2:50 pm **Quality Management at the National Center for Health Statistics (NCHS)**—❖ Kenneth Harris, National Center for Health Statistics

3:05 pm **Achieving Clinical Satisfaction with the**

Desirability Function—❖ Terrence Murphy, Yale University

3:20 pm **Temporary Help, Leased, and Contract Workers: Designing and Testing a Supplement to the Current Employment Statistic Survey**—❖ Polly Phipps, Bureau of Labor Statistics; Kathy Downey, Bureau of Labor Statistics; Christopher Manning, Bureau of Labor Statistics; Kirk Mueller, Bureau of Labor Statistics

3:35 pm **Multilevel Structural Equation Model for Ordinal Responses**—❖ Sophia Rabe-Hesketh, University of California, Berkeley; Xiaohui Zheng, University of California, Berkeley

468   CC-203
Confidence Intervals and Hypothesis Testing—Contributed

Business and Economics Statistics Section

Chair(s): Edward Melnick, New York University

2:05 pm **New Tests for Joint Hypothesis of a Unit Root When There Is a Break in the Innovation Variance**—❖ Amit Sen, Xavier University

2:20 pm **Easily Implemented Confidence Intervals and Hypothesis Tests for Sharpe Ratios under General Conditions**—❖ J. D. Opdyke, DataMineIt

2:35 pm **Parameters Estimation and Bias Corrections for Diffusion Processes**—❖ Chengyong Tang, Iowa State University; Song X. Chen, Iowa State University

2:50 pm **New Tests for Endogeneity in a Simultaneous Equation System with Discrete Endogenous Variable**—❖ Xu Cao, University of Missouri-Rolla; V. A. R. Samaranayake, University of Missouri-Rolla

3:05 pm **Causality Tests in Cointegrated Systems and Temporal Aggregation of Multivariate Autoregressive Moving Average Processes**—❖ Ceylan Yozgatligil, Temple University; William W. S. Wei, Temple University

3:20 pm **LAD Estimation of ARFIMA-GARCH Models**—❖ Wai K. Li, The University of Hong Kong; Guodong Li, The University of Hong Kong

3:35 pm **A Note on the Inequality Constraints for the GARCH Models**—❖ Henghsiu Tsai, Academia Sinica; Kung-Sik Chan, The University of Iowa

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Wednesday

469 CC-2A

● Equivalence, Superiority, and Noninferiority—Contributed

Biopharmaceutical Section

Chair(s): Amit Bhattacharyya, GlaxoSmithKIine

2:05 pm **Simultaneous Test for Superiority and Noninferiority Hypotheses in Active Controlled Clinical Trials**—❖ Yi Tsong, U.S. Food and Drug Administration; Joanne Zhang, Center for Drug Evaluation and Research

2:20 pm **Testing Equality of Medians in Two Independent Lognormal Distributions**—❖ Hongwei Wang, Merck & Co., Inc.; Arvind K. Shah, Merck & Co., Inc.

2:35 pm **Likelihood Ratio Tests for Equivalence Hypotheses**—❖ Shun-Yi Chen, Tamkang University; Ching-Feng Hsu, Tamkang University

2:50 pm **Simultaneous Testing of Noninferiority and Superiority Increases the False Discovery Rate**—❖ Tie-Hua Ng, U.S. Food and Drug Administration

3:05 pm **New Tests for Null Hypotheses of Nonunity Relative Risk**—❖ Kallappa Koti, U.S. Food and Drug Administration

3:20 pm **Assessing the Superiority of a Combination Drug**—Jianjun Li, Merck Research Laboratories; Steven Snapinn, Amgen Inc.; ❖ Guoyong Jiang, Cephalon, Inc.

3:35 pm **To Permute or Not Permute**—❖ Haiyan Xu, Johnson & Johnson Pharmaceutical R&D; Jason Hsu, The Ohio State University; Yifan Huang, H. Lee Moffitt Cancer Center & Research Institute; Violeta Calian, University of Iceland

470 CC-619

● Semiparametric Methods—Contributed

Biometrics Section, Section on Nonparametric Statistics, ENAR

2:05 pm **The Efficiency of Multivariate Pseudo-Likelihood Estimation**—❖ Park Bum Hee, Hankuk University of Foreign Studies; Park Heungsun, Hankuk University of Foreign Studies

2:20 pm **Confidence Intervals Based on Non-Smooth Estimating Equations for Longitudinal Data Using Markov Chain Marginal Bootstrap**—❖ Di Li, University of Illinois at Urbana-Champaign

2:35 pm **Hierarchical Quasi-Likelihood Approach to Bioavailability and Bioequivalence Analysis**—❖ Changchun Xie, McMaster University

2:50 pm **Analysis of Linear Transformation Models with Covariate Transformations**—❖ Chunpeng Fan, University of Wisconsin-Madison; Jason P. Fine, University of Wisconsin-Madison

3:05 pm **Smoothing Spline Anova Model for Bivariate Bernoulli Outcome**—❖ Hyonho Chun, University of Wisconsin-Madison

3:20 pm **Statistical Inference for Multivariate Outcome-Dependent Sampling Design**—❖ Tsui-Shan Lu, The University of North Carolina at Chapel Hill; Haibo Zhou, The University of North Carolina at Chapel Hill

3:35 pm **Floor Discussion**

471 CC-620

● Inference and Models for Censored Data—Contributed

Biometrics Section, ENAR

Chair(s): Petra Buzkova, The University of North Carolina at Chapel Hill

2:05 pm **Statistical Analysis of Survival Data under Informative Truncation**—❖ Shu-Hui Chang, National Taiwan University

2:20 pm **Medical Cost Estimation under Dependent Censoring**—❖ Wenqin Pan, Duke University; Donglin Zeng, The University of North Carolina at Chapel Hill

2:35 pm **A General Semiparametric Transformation Model for Survival Data**—❖ Hao Liu, University of California, Davis; Alexander Tsodikov, University of California, Davis

2:50 pm **Estimation of a Survival Curve with Unlinked Entry and Failure Times**—❖ Yujun Wu, University of Medicine & Dentistry of New Jersey; Weichung J. Shih, University of Medicine & Dentistry of New Jersey; Dirk Moore, University of Medicine & Dentistry of New Jersey

3:05 pm **Comorbidity through the Life Span**—❖ John Dixon, Florida State University; Eric Chicken, Florida State University; Myles Hollander, Florida State University; Dan McGee, Florida State University

3:20 pm **Goodness-of-Fit Tests for Left-Truncated and Right-Censored Data**—❖ Yi-Ting Hwang, National Taipei University

3:35 pm **A Goodness-of-Fit Test for Copula Models**—❖ Antai Wang, Georgetown University

Wednesday

472   CC-2B
● Osteoporosis, Contraceptive, and Vaccine Trials—Contributed
Biopharmaceutical Section, Biometrics Section, ENAR
Chair(s): Margaret Minkwitz, AstraZeneca Pharmaceuticals

2:05 pm	**Quantitative Risk-Benefit Assessment in the Multiple Outcomes of Raloxifene Evaluation (MORE) Trial: an Application of the Global Benefit-Risk Assessment**—❖ Messan G. Amewou-Atisso, Eli Lilly and Company; Yili Pritchett, Abbott Laboratories
2:20 pm	**Quantifying the Effect of the Surrogate Marker by Information Gain**—❖ Yongming Qu, Eli Lilly and Company; Michael Case, Eli Lilly and Company
2:35 pm	**Assessing Learning Effect and Nonrandom Dropout in a Contraceptive Device Trial**—❖ Pai-Lien Chen, Family Health International
2:50 pm	**An Improved Exact Method for the Estimation and Testing of a Rate Ratio**—❖ William W. B. Wang, Merck Research Laboratories; Ivan Chan, Merck & Co., Inc.
3:05 pm	**Utilizing Statistical Models To Predict the Duration of Protection of Vaccines**—❖ Liwen Xi, Merck & Co., Inc.
3:20 pm	**A Statistical Framework for Quantile Equivalence Clinical Trials with Application to Pharmacokinetic Studies That Bridge from HIV-Infected Adults to Children**—❖ Lixia Pei, Harvard University; Michael Hughes, Harvard University
3:35 pm	**The Use of an Internal Unblinded Statistician with a Data-Monitoring Committee**—❖ David Radley, Merck & Co., Inc.; Gregory Golm, Merck & Co., Inc.

473   CC-3A
● Oncology Trials—Contributed
Biopharmaceutical Section, Biometrics Section, ENAR
Chair(s): David Manner, Eli Lilly and Company

2:05 pm	**Evaluating the Quality Reporting of Clinical Trials in Primary Treatment of Brain Tumors**—❖ Lehana Thabane, McMaster University; Rose Lai, Columbia University; Rong R. Rachel, The University of British Columbia; Michael Fraumeni, Juravinski Cancer Centre
2:20 pm	**Predicting Malignant Renal Lesions by Using Preoperative Color Doppler Ultrasonography: Building a Nomogram**—❖ Alexia Iasonos,

Memorial Sloan-Kettering Cancer Center; Ganesh V. Raj, Memorial Sloan-Kettering Cancer Center; Paul Russo, Memorial Sloan-Kettering Cancer Center

2:35 pm	**Statistical Properties of a Modified Accelerated Design for Phase I Cancer Clinical Trials**—❖ Weili He, Merck & Co., Inc.; Jun Liu, Rutgers University; Hui Quan, sanofi-aventis
2:50 pm	**Using Marginal Structural Model To Adjust for Post-Discontinuation Chemotherapy in Cancer Clinical Trials**—❖ Yanping Wang, Eli Lilly and Company; Jim Symanowski, Eli Lilly and Company
3:05 pm	**On Dose Escalation Rules in Phase I Cancer Clinical Trials**—❖ Susan Li, Centocor R&D, Inc.
3:20 pm	**Identifying Patients with Newly Diagnosed; Histologically Proven; Untreated; Symptomatic Stage I, II, or III Myeloma Who May Benefit from Dexamethasone**—❖ Keyue Ding, Queen's University
3:35 pm	**A Statistical Method To Integrate Independent Review and Investigator Review in Clinical Cancer Trial**—❖ Xiaolong Luo, Johnson & Johnson Pharmaceutical R&D

474   CC-601
✪ Network Analysis and Spatial Applications—Contributed
Section on Physical and Engineering Sciences
Chair(s): Dave Higdon, Los Alamos National Laboratory

2:05 pm	**Dynamic Origin-Destination Matrix Estimation from Partially Observed Trajectories in a Large Network**—❖ Jaimyoung Kwon, California State University, East Bay; Pravin Varaiya, University of California, Berkeley
2:20 pm	**Network Tomography Problems**—❖ Jiangang Fang, Rutgers University; Cun-Hui Zhang, Rutgers University
2:35 pm	**A Bayes/Empirical Bayes approach for service level network reliability/survivability measure**—❖ Cheng Chen, Texas A&M University; Margaret F. Land, TeXas Environmental Studies and Analysis, LLC; Rajat Sethi, Texas A&M University-Kingsville
2:50 pm	**Calibration and Prediction for Computer Experiment Output Having Qualitative and Quantitative Input Variables**—❖ Gang Han, The

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Ohio State University; Thomas Santner, The Ohio State University; William Notz, The Ohio State University

3:05 pm   **Validity of Likelihood and Bayesian Inference for Gaussian Process Regression**—❖ Bela Nagy, The University of British Columbia; Jason Loeppky, The University of British Columbia; William J. Welch, The University of British Columbia

3:20 pm   **Exploiting Spatial Information in Multivariate Calibration**—❖ Brian Marx, Louisiana State University; Paul H. C. Eilers, Leiden University Medical Center

3:35 pm   **Representations of Spatial Surface Models**— ❖ James Yen, National Institute of Standards and Technology

475   CC-309
Dimension Reduction and Image Analysis— Contributed

Section on Statistical Computing, Section on Statistical Graphics

Chair(s): Ranjan Maitra, Iowa State University

2:05 pm   **Assessment of Influential Observations Using Alpha Factor Analysis**—❖ Zenaida F. Mateo, University of Manitoba; Yutaka Tanaka, Nanzan University

2:20 pm   **Factor Analysis for Multiattribute Ranked Data**— ❖ Philip L. H. Yu, The University of Hong Kong; Wai Ming Wan, The University of Hong Kong

2:35 pm   **Sufficient Dimension Reduction, Regardless of (n, p) Relation**—❖ Lexin Li, North Carolina State University

2:50 pm   **Linear Dimension Reduction in Image Analysis Using Geometrical Tools**—❖ Evgenia Rubinshtein, Florida State University; Anuj Srivastava, Florida State University

3:05 pm   **Inferring Galaxy Morphology Through Texture Analysis**—❖ Kinman Au, Carnegie Mellon University; Christopher Genovese, Carnegie Mellon University; Andrew Connolley, University of Pittsburgh

3:20 pm   **Image Analysis Using the EM Algorithm with Stochastic Variation**—❖ Xiaoxi Zhang, University of Michigan; Roderick J. Little, University of Michigan

3:35 pm   **Validity Diagnostics for DTI Heterogeneity Models**—❖ Meagan E. Clement, Rho, Inc.; Keith E. Muller, The University of North Carolina at

Chapel Hill; Guido Gerig, The University of North Carolina at Chapel Hill; Matthew Gribbin, The University of North Carolina at Chapel Hill; Joseph Piven, The University of North Carolina at Chapel Hill

476   CC-205
The Practice of Statistical Consulting: Study Design and Sample Size—Contributed

Section on Statistical Consulting

Chair(s): Harold Dyck, California State University

2:05 pm   **The Joys (and Perils) of Professional Statistical Consulting**—❖ Nestor Rohowsky, IDCS, Inc.

2:20 pm   **Impact of Effect Size, Sample Size, and Crossover Percent on Intention-to-Treat (ITT) Analysis: Do Subjects Need To Stay in the Group They Were Assigned?**—❖ Thomas Wasser, Lehigh Valley Hospital; Christopher S. Hollenbeak, Penn State; Stephen Matchett, Lehigh Valley Hospital

2:35 pm   **Comparison of Effect Size, Power, and Type I Error Rate in Simulated Efficacy and Effectiveness Trials**—❖ Mary Z. Mays, Arizona State University; Jan Jirsak, University of Arizona

2:50 pm   **Reporting Significant Results for a Large Sample Study**—❖ Gloria Caldito, LSU Health Sciences Center

3:05 pm   **Uncontrolled Variation in Multistage Experiments**—❖ T. B. Bailey, Iowa State University

3:20 pm   **Dose Ranging Studies in Acupuncture, Manipulative Therapy, and Mind Body Research**—❖ Laura L. Johnson, National Center for Complementary and Alternative Medicine; Catherine Stoney, National Center for Complementary and Alternative Medicine; Partap Khalsa, National Center for Complementary and Alternative Medicine

3:35 pm   **A General Serial Gatekeeping Procedure To Control Studywise Error Rate**—❖ Fang Xie, Cephalon, Inc.; Chung-Kuei Chang, Cephalon, Inc.; Guoyong Jiang, Cephalon, Inc.

477   CC-307
Dimension Reduction Methods—Contributed

Section on Nonparametric Statistics

Chair(s): Ann Kalinowski,

2:05 pm   **Sliced Inverse Moment Regression Using**

GENERAL PROGRAM SCHEDULE

✿ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Weighted Chi-Squared Tests for Dimension Reduction—❖ Jie Yang, The University of Chicago; Zhishen Ye, Eli Lilly and Company

2:20 pm   **Selecting Tuning Parameters in Dimension Reduction Methods in Regression**—❖ Peng Zeng, Auburn University

2:35 pm   **Projection-Directed Nonparametric Omnibus Test for the Multivariate Multisample Problem**—❖ Xiaobin Yuan, St. Jude Children's Research Hospital; Cheng Cheng, St. Jude Children's Research Hospital

2:50 pm   **Aggregation of Nonparametric Estimators for Volatility Matrix**—❖ Yingying Fan, Princeton University

3:05 pm   **Dimensionality Reduction of High-Dimensional Tables**—❖ Siamak Noorbaloochi, VAMC, University of Minnesota; David Nelson, VAMC, University of Minnesota; Joe Grill, VAMC, Minneapolis

3:20 pm   **Statistical Inference of Distributions on Manifold**—❖ Wanli Min, IBM T. J. Watson Research Center

3:35 pm   **Floor Discussion**

478   CC-310
● Applied Bayesian Modeling—Contributed

Section on Bayesian Statistical Science

Chair(s): Dan Spitzner, Virginia Tech

2:05 pm   **Tree-Based and Bayesian Modeling of Food Web Collapse in the Permian Mass Extinction**— ❖ Steve C. Wang, Swarthmore College; Peter D. Roopnarine, California Academy of Sciences; Kenneth D. Angielczyk, University of Bristol

2:20 pm   **Bayesian Calibration Models for Obsidian Hydration Dating**—❖ Andrew Schaffner, California Polytechnic State University, San Luis Obispo

2:35 pm   **Bayesian Semiparametric Analysis for a Single-Item Maintenance Optimization**—❖ Elmira Popova, The University of Texas at Austin; Paul Damien, The University of Texas at Austin; Timothy Hanson, University of Minnesota

2:50 pm   **Bayesian Modeling of the Effect of Four-to-Three-Lane Conversion on the Number of Crashes and Crash Rates for Iowa Roads**—❖ Wen Li, Iowa State University; Alicia Carriquiry, Iowa State University

3:05 pm   **Bayesian Procrustes Analysis**—Athanasios Micheas, University of Missouri-Columbia; ❖ Yuqiang Peng, University of Missouri-Columbia

3:20 pm   **Statistical Analysis of Single-Unit Firing-Rate**— ❖ Sam Behseta, California State University; Robert E. Kass, Carnegie Mellon University

3:35 pm   **Floor Discussion**

479   CC-613
Nonresponse Bias and Other Estimation Challenges—Contributed

Section on Government Statistics

Chair(s): Carolyn Shettle, Westat

2:05 pm   **Nonresponse Bias in the Omnibus Household Survey**—❖ Promod Chandhok, Bureau of Transportation Statistics

2:20 pm   **Nonresponse Bias of Time-Use Measures' Inter-relationships**—❖ John Dixon, Bureau of Labor Statistics

2:35 pm   **Using Survival Analysis To Predict Sample Retention Rates**—❖ Andy Sadler, Bureau of Labor Statistics

2:50 pm   **Comparison of the Income Items from the CPS and Census 2000**—❖ Bruce H. Webster, Jr., U.S. Census Bureau

3:05 pm   **Multiple-Record Applicants in the Analysis of Hiring Disparity**—❖ Charles McGhee, U.S. Department of Labor; Marika Litras, Office of Federal Contract Compliance Programs; Michael Sinclair, Office of Federal Contract Compliance Programs

3:20 pm   **The Use of the Peters-Belson Method in Hiring Discrimination Assessments**—Michael Sinclair, Office of Federal Contract Compliance Programs; ❖ Shirong Leu, U.S. Department of Labor; Arline Easley, U.S. Department of Labor

3:35 pm   **Estimating Missing Prices in Producer Price Index**—❖ Onimissi Sheidu, Bureau of Labor Statistics

480   CC-605
Stochastic Process and Mixture Models—Contributed

IMS

Chair(s): Marloes Maathuis, University of Washington

2:05 pm   **A Class of Probability Measures on the Simplex**—

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

❖ Zach Dietz, Tulane University

2:20 pm   **The Bahadur Representation for Sample Quantiles under Weak Dependence**—❖ Shuxia Sun, Wright State University

2:35 pm   **Long-Time Asymptotics for Constrained Diffusions in Polyhedral Domains**—❖ Chihoon Lee, The University of North Carolina at Chapel Hill; Amarjit Budhiraja, The University of North Carolina at Chapel Hill

2:50 pm   **The Mixture Labelling Problem: a Frequentist View**—❖ Daeyoung Kim, Penn State; Bruce G. Lindsay, Penn State

3:05 pm   **Stability and Tail Properties of Nonlinear Stochastic Recursions with Application to Nonlinear AR-GARCH Models**—❖ Daren B. H. Cline, Texas A&M University

3:20 pm   **Noncommutative Stochastic Convergence of the Bounded Besicovitch Sequence**—❖ Larisa Shwartz, IBM; Genady Grabarnik, IBM T. J. Watson Research Center

3:35 pm   **Floor Discussion**

Regular Contributed Posters
2:00 pm–3:50 pm

481   CC-Level 6 East Lobby
Contributed Posters—Contributed

General Methodology, Social Statistics Section, Section on Survey Research Methods, Biopharmaceutical Section, Section on Physical and Engineering Sciences, Section on Statistics and the Environment, Section on Statistics and Marketing, Section on Statistical
Consulting, Biometrics Section, Section on Statistical Computing, Section on Statistics in Sports, Section on Statistics in Epidemiology

Organizer(s): Maura E. Stokes, SAS Institute, Inc.

Chair(s): Maura E. Stokes, SAS Institute, Inc.

Archeology, anthropology, humanities

01   A Multivariate Statistical Analysis of Female Empowerment—❖ Janelle Jones, SUMSRI; Adrianne Demski, SUMSRI

General

02   Examination of Structure Coefficient Interpretation in Descriptive Discriminant Analysis: the Three-Group Case—❖ Mercedes Schneider, Ball State University

03   Computer Literacy of Adolescents in Grades 9 to 12: an Exploratory Study—❖ Matthew Sink, Shoreline Christian High School; Christopher A. Sink, Seattle

Pacific University

04   Partial Least Squares Regression and Its Application in Drug Discovery—❖ Jingjing Chen, Merck & Co., Inc.

05   Quasi-Probability Distributions Based on the Lagrange Expansions—❖ Shubiao Li, Central Michigan University; Carl Lee, Central Michigan University; Felix Famoye, Central Michigan University

06   Data Analysis of Virtual Cement Measurements—❖ Adriana Hornikova, National Institute of Standards and Technology; Charles Hagwood, National Institute of Standards and Technology; Hung-kung Liu, National Institute of Standards and Technology; Blaza Toman, National Institute of Standards and Technology; Nien Fan Zhang, National Institute of Standards and Technology; Edward J. Garboczi, National Institute of Standards and Technology; Jeffrey W. Bullard, National Institute of Standards and Technology

07   Analysis of Number of Components in Mixture Model—❖ Yan Wang, Southern Methodist University; S. Lynne Stokes, Southern Methodist University

08   Use of Data Mining To Determine Variable Significance and Inter-Relationships in Models—❖ Karl Sieber, National Institute for Occupational Safety and Health

09   The Impact of Erroneous Inclusion and Exclusion of Variables in Multivariate Inference—❖ Youfeng Nie, Sam Houston State University; Cecil Hallum, Sam Houston State University

10   On Testing about a Construct Mean for Likert-Scale Data—❖ Cherng Ding, National Chiao Tung University; Hsiu-Yu Lee, National Chiao Tung University

11   Caution When Using Covariate Adjustment in Mixed Effect ANOVA—❖ Zhenxu Ma, Battelle; Paul Feder, Battelle

12   Estimating a Population Median from a Small Sample—❖ Boris Shulkin, Christy Industries/Magna International; Shlomo Sawilowsky, Wayne State University

13   On the Use of Heywood Cases for Specification Testing in SEM—❖ Stanislav Kolenikov, University of Missouri-Columbia; Kenneth A. Bollen, The University of North Carolina at Chapel Hill

Linear models, GLMs, parametric methods

14   S-PLUS and R Package for Least Angle Regression—❖ Tim C. Hesterberg, Insightful Corporation

15   Partially Repeated Measurements—❖ Mitchell Watnik, California State University, East Bay; Erica Wong, California State University, East Bay; David Schlessinger,

GENERAL PROGRAM SCHEDULE

❂ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

California State University, East Bay

16   Selecting the Best Confidence Interval for a Variance Ratio (or Heritability)—❖ Brent Burch, Northern Arizona University

17   Calculating Power for Generalized Linear Models Using the Wald Test—❖ Jonathan Mahnken, The University of Kansas Medical Center

18   Confidence Interval Coverage for Four Effect Sizes for Predictor Variables in a Multiple Linear Regression Model—❖ Todd Bodner, Portland State University

Logitudinal data, repeated measurments and cluster data

19   Large-Cluster Asymptotics for GEE: Working Correlation Models—❖ Hyoju Chung, University of Washington; Thomas Lumley, University of Washington

20   Free SAS/IML (r) Software for Computing Confidence Limits for Power in the Univariate and Multivariate Approaches to Repeated Measures—❖ Jacqueline Johnson, The University of North Carolina at Chapel Hill; Matthew Gribbin, The University of North Carolina at Chapel Hill; Sola Park, The University of North Carolina at Chapel Hill; Keith E. Muller, The University of North Carolina at Chapel Hill

21   Goodness-of-Fit Tests for Proportional Odds Model with GEE for Ordinal Categorical Responses—❖ Junxiang Luo, University of Cincinnati; Rakesh Shukla, University of Cincinnati; Qi Zhang, University of Cincinnati

22   Latent Class Growth Models: an Application—❖ Maragatha Kuchibhatla, Duke University Medical Center; Gerda Fillenbaum, Duke University Medical Center

23   Model Selection for the Impact Evaluation of Energy Efficiency Programs—❖ Kathryn Parlin, West Hill Energy and Computing, Inc.; Larry Haugh, University of Vermont

24   An Empirical Power Analysis of Hierarchical Multivariate Linear Model under Three Covariance Structures in Longitudinal Data Analysis—❖ Hua Fang, Ohio University; Gordon P. Brooks, Ohio University; Maria L. Rizzo, Ohio University; Robert S. Barcikowski, Ohio University

Probability, mathematical statistics, stochastic processes

25   A General Probability Distribution Using Bˌrmann Power Series—❖ Pali Sen, University of North Florida; Richard F. Patterson, University of North Florida

26   A Modified Asymmetric Simes Procedure for Multiple Tests of Significance—❖ Li Deng, New England College of Optometry

Simulation and Monte Carlo methods

27   An Examination of the Utility of Bonferroni Adjustments for Tests of Regression Coefficients—❖ Daniel Mundfrom, University of Northern Colorado; Jamis Perrett, University of Northern Colorado; Jay Schaffer, University of Northern Colorado; Adam Piccone, University of Northern Colorado

Sports, art, entertainment

28   The Brave New Hockey World: a Statistical Assessment of NHL Rules Changes—❖ Paramjit Gill, The University of British Columbia

Incomplete data analysis, imputation methods

29   Statistical Approches To Analyze Censored Data with Multiple Detection Limits—❖ Wei Zhong, ICON Clinical Research; Linda Levin, University of Cincinnati; Paul Succop, University of Cincinnati; Rakesh Shukla, University of Cincinnati; Jeffrey Welge, University of Cincinnati

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Invited Sessions 4:00 pm–5:50 pm

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482   **CC-Ballroom 6ABC**
COPSS Awards and Fisher Lecture—Invited
Committee of Presidents of Statistics Societies (COPSS), The ASA, ENAR, WNAR, IMS, SSC

Organizer(s): Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health

Chair(s): Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health

4:05 pm   **Recombination and Linkage—**❖ Terence P. Speed, University of California, Berkeley

5:35 pm   **Floor Discussion**

THURSDAY, AUGUST 10

Tours

1:00 pm–5:00 pm   CC-Convention Plaza
TR10 - Northwest Winery Tour

1:00 pm–5:00 pm   CC-Convention Plaza

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Thursday

TR11 - Glassblowing Tour

Committee/Business Meetings & Other Activities

7:00 am–10:30 am   CC-507
Speaker Work Room

7:00 am–10:30 am   CC-508
Speaker Work Room

7:00 am–8:30 am   CC-305
Howard Levene Memorial Breakfast Reception (closed)
Organizer(s): Zhiliang Ying, Columbia University

7:00 am–10:30 am   CC-Level 4 South Lobby
Cyber Center

7:30 am–10:30 am   CC-Level 4 South Lobby
JSM Main Registration

7:30 am–10:30 am   CC-Level 4 South Lobby
ASA Membership/Special Assistance Desk

8:00 am–10:00 am   CC-306
Council of Sections Response Meeting (closed)
Chair(s): John E. Boyer, Kansas State University

8:00 am–10:30 am   CC-Level 4 South Lobby
ASA Marketplace

9:00 am–5:00 pm   CC-Level 1
Citywide Concierge Center

10:00 am–11:30 am   CC-306
Council of Sections Governing Board Debriefing Meeting (closed)
Chair(s): John E. Boyer, Kansas State University

Invited Sessions 8:30 am–10:20 am

483   CC-603
● Collaborative Research in Statistics—Invited
General Methodology, Section on Physical and Engineering Sciences
Organizer(s): Bonnie K. Ray, IBM T. J. Watson Research Center

Chair(s): Bonnie K. Ray, IBM T. J. Watson Research Center

8:35 am	**Sensor Analytics: Radioactive Gas Quantity Estimation and Error Propagation—**❖ Dale N. Anderson, Pacific Northwest National Laboratory; Justin I. McIntyre, Pacific Northwest National Laboratory; Deborah K. Carlson, Pacific Northwest National Laboratory; Reynold Suarez, Pacific Northwest National Laboratory; James C. Hayes, Pacific Northwest National Laboratory
9:00 am	**Using Informative Bayesian Priors in a Sales Forecasting System—**❖ Phillip M. Yelland, Sun Microsystems Laboratories
9:25 am	**Formulation Prediction for Derivative Product Development—**❖ Martha Gardner, GE Global Research
9:50 am	Disc: Sarah Michalak, Los Alamos National Laboratory
10:10 am	**Floor Discussion**

484   CC-3A
✪ Statistical Methodology for Environmental Applications—Invited
International Indian Statistical Association
Organizer(s): Soumendra N. Lahiri, Iowa State University
Chair(s): Soumendra N. Lahiri, Iowa State University

8:35 am	**Bayesian Melding: an Application and Critical Assessment—**❖ James Zidek, The University of British Columbia; Zhong Liu, The University of British Columbia; Nhu Le, BC Cancer Agency/ University of British Columbia
9:00 am	**Fixed Rank Kriging for Massive Datasets—**❖ Noel Cressie, The Ohio State University; Gardar Johannesson, Lawrence Livermore National Laboratory
9:25 am	**Minimum Distance Inference in Unilateral Autoregressive Lattice Processes—**❖ Marc G. Genton, Texas A&M University; Hira L. Koul, Michigan State University
9:50 am	**Computation and Modeling for Large Space-Time Environmental Datasets—**❖ Michael L. Stein, The University of Chicago
10:15 am	**Floor Discussion**

485   CC-3B
Statistical Genetics and Nonparametric Methods: in Memory of Howard Levene—Invited

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Memorial, Section on Nonparametric Statistics

Organizer(s): Zhiliang Ying, Columbia University

Chair(s): Todd Durham, Inspire Pharmaceuticals, Inc.

8:35 am	**The Influence of Professor Levene's Test of the Equality of the Variances of k Groups on the Development of Robust Procedures and Their Application**—❖ Joseph Gastwirth, The George Washington University
9:00 am	**The Influence of Levene's Paper on Polymorphism in Subdivided Populations**—❖ Edward Pollak, Iowa State University
9:25 am	**Howard Levene: Statistician, Educator, Colleague, and Friend**—❖ Theodore W. Anderson, Stanford University
9:50 am	**Testing Multivariate Scale Difference by Depth Rank Tests**—❖ Regina Liu, Rutgers University; Kesar Singh, Rutgers University
10:15 am	**Floor Discussion**

486   CC-612

● Experimental Design for Nonlinear Modeling—Invited

Biopharmaceutical Section

Organizer(s): Thomas E. Bradstreet, Merck Research Laboratories

Chair(s): Thomas E. Bradstreet, Merck Research Laboratories

8:35 am	**Curvature, Robustness, and Optimal Design in Applied Nonlinear Regression Modeling**—❖ Timothy E. O'Brien, Loyola University Chicago
9:00 am	**Locally D-Optimal Designs Based on Models Combining Emax and One-Compartment Models**—❖ Sam Hedayat, University of Illinois at Chicago
9:25 am	**Optimal Designs in Nonlinear Mixed-Effects Models: Applications for Population Pharmacokinetics/Pharmacodynamics Studies**—❖ Sylvie Retout, INSERM U738; Emmanuelle Comets, INSERM U738; France Mentre, INSERM U738
9:50 am	**Modeling and Clinical Trial Simulation in the Post–Critical Path Drug**—❖ Michael D. Hale, Amgen Inc.
10:15 am	**Floor Discussion**

487   CC-619

● ✪ Women Pioneering Solutions to New Global Challenges—Invited

Committee on Women in Statistics

Organizer(s): Lori A. Thombs, University of Missouri-Columbia; Eleanor Feingold, University of Pittsburgh

Chair(s): Eleanor Feingold, University of Pittsburgh

8:35 am	**Aggregation, Lasso, and Sparsity**—❖ Florentina Bunea, Florida State University
9:00 am	**A Bayesian Hierarchical Model with Nest-Specific Covariates in Nest Survival Study**—❖ Jing Cao, Southern Methodist University; Chong He, Virginia Polytechnic Institute and State University
9:25 am	**Joint Statistical Models for Genome-Wide Tiling Array and Sequence Data**—❖ Sunduz Keles, University of Wisconsin-Madison; Heejung Shim, University of Wisconsin-Madison
9:50 am	**A Markov-Hidden Markov Model for Genetic Admixture**—❖ Hua Tang, Fred Hutchinson Cancer Research Center; Pei Wang, Fred Hutchinson Cancer Research Center; Marc Coram, The University of Chicago
10:15 am	**Floor Discussion**

488   CC-607

● ✪ Bayesian Methods in Bioinformatics—Invited

Section on Bayesian Statistical Science, Biometrics Section, WNAR, ENAR

Organizer(s): Sounak Chakraborty, University of Missouri-Columbia

Chair(s): Marc A. Suchard, University of California, Los Angeles

8:35 am	**Bayesian Mixture Models and Application to High-Throughput Data**—❖ Kim-Anh Do, M. D. Anderson Cancer Center
9:00 am	**Bayesian Modeling of Complex Traits**—❖ Paola Sebastiani, Boston University
9:25 am	**Functional Clustering by Bayesian Wavelet Methods**—❖ Bani K. Mallick, Texas A&M University
9:50 am	**Multiclass Cancer Diagnosis with Bayesian Kernel Machine Models**—❖ Sounak Chakraborty, University of Missouri-Columbia
10:15 am	**Floor Discussion**

489   CC-2B

● Bayesian Inference for Population Survey Data—Invited

Section on Survey Research Methods, Section on Bayesian Statistical Science

Organizer(s): Michael R. Elliott, University of Michigan

Chair(s): Steven G. Heeringa, University of Michigan

8:35 am	**The Bayesian Approach to Inference for Finite**

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

	Population Samples—❖ Roderick J. Little, University of Michigan
9:00 am	**Weight Trimming via Bayesian Variable Selection Methods**—❖ Michael R. Elliott, University of Michigan
9:25 am	**Bayesian Approach for Combining Information from Multiple Surveys**—❖ Trivellore E. Raghunathan, University of Michigan
9:50 am	**Influence Functions and Robust Bayes Estimation**—❖ Malay Ghosh, University of Florida; Tapabrata Maiti, Iowa State University; Ananya Roy, University of Florida
10:15 am	**Floor Discussion**

490   CC-303

● Graphical Tools for Spatial Econometrics—Invited

Section on Statistical Graphics

Organizer(s): Christine Thomas-Agnan, University of Toulouse

Chair(s): Antoine de Falguerolles, University Paul Sabatier (Toulouse III)

8:35 am	**Using ArcView Mapping Files in Statistical Software Programs**—❖ James P. LeSage, The University of Toledo
9:05 am	**GeoXp: an R Package for Interactive Exploratory Spatial Data Analysis**—❖ Anne Ruiz-Gazen, University Toulouse I; Christine Thomas-Agnan, University of Toulouse
9:35 am	**Exploring Spatial Data with openGeoDa and PySAL**—❖ Luc Anselin, University of Illinois; Sergio J. Rey, San Diego State University
10:05 am	**Floor Discussion**

491   CC-614

● Bayesian Nonparametric Methods—Invited

ENAR, WNAR, Section on Bayesian Statistical Science, Section on Nonparametric Statistics

Organizer(s): Mahlet G. Tadesse, University of Pennsylvania

Chair(s): Mahlet G. Tadesse, University of Pennsylvania

8:35 am	**Split-Merge Markov Chain Monte Carlo for a Nonconjugate Dirichlet Process Mixture Model**—❖ Sonia Jain, University of California, San Diego; Radford Neal, University of Toronto
9:00 am	**Bayesian Semiparametric Inferences for Disease Risk, ROC Curves, and Prevalence**—❖ Wesley O. Johnson, University of California, Irvine; Adam Branscum, University of Kentucky

9:25 am	**Nonparametric Estimation of Copulas via Mixtures**—❖ Peter Hoff, University of Washington
9:50 am	**Bayesian Nonparametric Spatial and Spatio-Temporal Models for Disease Incidence Data**—❖ Athanasios Kottas, University of California, Santa Cruz; Jason Duan, Duke University; Alan E. Gelfand, Duke University
10:15 am	**Floor Discussion**

492   CC-304

● Fusing Environmental Data with Numerical Models—Invited

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

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

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

8:35 am	**Statistical Data Assimilation To Improve Hurricane Forecasting**—❖ Montserrat Fuentes, North Carolina State University; Kristen M. Foley, North Carolina State University
9:00 am	**Stochastic Parameterizations in Numerical Weather Forecasting Models**—❖ Christopher K. Wikle, University of Missouri-Columbia; Yong Song, University of Missouri-Columbia; Christopher Anderson, NOAA
9:25 am	**Ensemble Smoothing for Understanding Geophysical Processes**—❖ Douglas W. Nychka, National Center for Atmospheric Research
9:50 am	Disc: Peter Guttorp, University of Washington
10:10 am	**Floor Discussion**

Invited Panels 8:30 am–10:20 am

493   CC-2A

● ✪ Federal Data-Sharing Requirements: Issues, Ethical Challenges, and Roles for the Statistical Community—Invited

Section on Government Statistics

Organizer(s): Virginia A. de Wolf, Consultant

Chair(s): Alvan O. Zarate, National Center for Health Statistics

Panelists:	❖ Joan E. Sieber, California State University, East Bay
	❖ Karen M. Hansen, Fred Hutchinson Cancer Research Center

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Thursday

❖ Helen McGough, University of Washington

❖ Alan M. Zaslavsky, Harvard Medical School

10:15 am **Floor Discussion**

Topic-Contributed Sessions
8:30 am–10:20 am

494   CC-613
● **Survival Analysis Issues for Medical Devices—Topic-Contributed**

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): David Breiter, Guidant Corporation

Chair(s): W. J. Hall, University of Rochester Medical Center

8:35 am **Confidence Levels of Confidence Intervals in the Survival Analysis**—❖ Xiaolong Shih, Boston Scientific Corporation

8:55 am **Futility Analysis for a Randomized Trial with a Time-to-Event Endpoint**—❖ Corina M. Sirbu, Boston Scientific Corporation; Kay M. Larholt, Boston Scientific Corporation

9:15 am **General Statistical Issues and Applications for Survival Analysis in Medical Device Clinical Studies**—❖ Chang S. Lao, U.S. Food and Drug Administration

9:35 am **Group Sequential Design of Device Trials Using Time-to-Event Analysis with Highly Unbalanced, Recurrent Events**—❖ Zengri Wang, Medtronic, Inc.; Andrew Mugglin, University of Minnesota

9:55 am Disc: Gosford Sawyerr,

10:15 am **Floor Discussion**

495   CC-620
✪ **Industry Applications in Defense and National Security—Topic-Contributed**

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

Organizer(s): I-Li Lu, The Boeing Company

Chair(s): I-Li Lu, The Boeing Company

8:35 am **Exploiting Ontologies To Enhance Situation Awareness**—❖ Steven A. Lien, The Boeing Company; Matt Easley, Rockwell Scientific

8:55 am **Multi-Sensor Fusion Using Nontraditional Sensors**—❖ Edward Wright, Information Extraction and Transport, Inc.

9:15 am **Design of Experiments for Wind Tunnel Testing: an Application on Load Investigation**—❖ Julio Peixoto, The Boeing Company; Winson Taam, The Boeing Company; I-Li Lu, The Boeing Company

9:35 am **Parametric Analysis of Advanced Feature-Aided Tracking with Dynamic Resource Allocation and Management**—❖ Thomas C. Bradley, Boeing Phantom Works; Dwight Rousu, Boeing Phantom Works; Jeffery D. King, Boeing Phantom Works; Jeffery D. Musiak, Boeing Phantom Works

9:55 am **Weighted Least Squares Approach To Assess Flight Test with Unbalanced Samples**—❖ Winson Taam, The Boeing Company

10:15 am **Floor Discussion**

496   CC-611
● **Statistical Developments in Cancer Surveillance Research—Topic-Contributed**

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

Organizer(s): Mousumi Banerjee, University of Michigan

Chair(s): Mousumi Banerjee, University of Michigan

8:35 am **Learning from Cancer Incidence: Secular Trend, Lead Time, and Overdiagnosis in Prostate Cancer Screening**—❖ Ruth Etzioni, Fred Hutchinson Cancer Research Center; Donatello Telesca, University of Washington

8:55 am **Screening with Virtual Colonoscopy: Should Small Polyps Be Referred for Removal?**—❖ Iris Vogelaar, University Medical Center Rotterdam; Marjolein van Ballegooijen, University Medical Center Rotterdam; Ann Zauber, Memorial Sloan-Kettering Cancer Center; J. Dik F. Habbema, University Medical Center Rotterdam

9:15 am **Modeling the Impact of Customizing Colorectal Screening by Age, Sex, and Race**—❖ Ann Zauber, Memorial Sloan-Kettering Cancer Center; Iris Vogelaar, University Medical Center Rotterdam; Marjolein van Ballegooijen, University Medical Center Rotterdam; J. Dik F. Habbema, University Medical Center Rotterdam; Sidney Winawer, Memorial Sloan-Kettering Cancer Center

9:35 am **Short-Term Prediction of Time Series Using Semiparametric Bayesian Techniques**—❖ Kaushik Ghosh, New Jersey Institute of Technology; Ram Tiwari, National Institutes of Health

9:55 am Disc: Kathy Cronin, National Cancer Institute

Thursday

10:15 am   **Floor Discussion**

497   CC-606
✪ Bayesian Methods and Computation in Finance—Topic-Contributed
Section on Bayesian Statistical Science

Organizer(s): Shawn Ni, University of Missouri-Columbia

Chair(s): Susan Alber, University of California, Los Angeles

8:35 am   **Estimating Macroeconomic Models: a Likelihood Approach**—❖ Juan Rubio, Federal Reserve Bank of Atlanta; Jesus Fernandez-Villaverde, University of Pennsylvania

8:55 am   **A Full Information Bayesian Approach to the Evaluation and Estimation of DSGE Models**—❖ John Landon-Lane, Rutgers University

9:15 am   **Bayesian Selection of Multivariate Stochastic Volatility Models**—❖ Antonello Loddo, University of Missouri-Columbia

9:35 am   **Bayesian Smoothing in Generalized Additive Models**—❖ Shawn Ni, University of Missouri-Columbia; Dongchu Sun, Virginia Polytechnic Institute and State University/University of Missouri-Columbia

9:55 am   **Leveling the Playing Field: Prior Choice and DSGE Model Comparisons**—❖ Marco Del Negro, Federal Reserve Bank of Atlanta

10:15 am   **Floor Discussion**

498   CC-201
● ✪ New Directions in Comparative and Cross-Cultural Survey Methods—Topic-Contributed
Section on Survey Research Methods

Organizer(s): Janet Harkness, University of Nebraska-Lincoln

Chair(s): Janet Harkness, University of Nebraska-Lincoln

8:35 am   **Quality Assurance in Comparative Studies**—❖ Lars Lyberg, Statistics Sweden

8:55 am   **Harmonization by Design**—❖ Beth-Ellen Pennell, University of Michigan

9:15 am   **The Effects of Acculturation on Survey Question Comprehension among Latino Respondents in the United States**—❖ Timothy P. Johnson, University of Illinois at Chicago; Allyson L. Holbrook, University of Illinois at Chicago; Young I. Cho, University of Illinois at Chicago

9:35 am   **Use of Interpreters in Telephone Interviews**—❖ Laura Branden, Westat

9:55 am   **Cross-Cultural, Cross-National Questionnaire Design**—❖ Sue Ellen Hansen, University of Michigan

10:15 am   **Floor Discussion**

Regular Contributed Sessions
8:30 am–10:20 am

499   CC-206
Explorations in Behavior and Outcomes—Contributed
Social Statistics Section

Chair(s): Carole L. Popoff, U.S. Census Bureau

8:35 am   **Shift Workers and Their Spouses' Daily Activities**—❖ Anne Polivka, Bureau of Labor Statistics

8:50 am   **A Group-Based Approach to Causal Analysis Using Longitudinal Data with Applications to Gang Membership and Teen Violence**—❖ Amelia Haviland, RAND Corporation; Daniel Nagin, Carnegie Mellon University; Paul Rosenbaum, University of Pennsylvania

9:05 am   **Toward Redistricting Rules Based on Housing Density and Indivisible Census Tracts**—❖ Tom Belin, University of California, Los Angeles

9:20 am   **Test Equating for Mixed-IRT Models: an Illustration with 3PL and Generalized Partial Credit Model Using the Stacking-Lord Approach**—❖ Yann-Yann Shieh,

9:35 am   **Oral Translations in Surveys: Issues of Data Quality and Question Design**—❖ Janet Harkness, University of Nebraska-Lincoln

9:50 am   **Comparing Internet Users and Nonusers' Behavior toward Market Products**—❖ Nuria Diaz-Tena, Mathematica Policy Research, Inc.; Robert Benford, TNS-Global

10:05 am   **A Policy Tool for Assessing Alcohol Intervention Strategies**—Edward Wegman, George Mason University; ❖ Yasmin H. Said, The Johns Hopkins University

500   CC-211
● Imputation of Sample Surveys—Contributed
Section on Survey Research Methods

Chair(s): Benmei Liu, Westat

GENERAL PROGRAM SCHEDULE

✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

8:35 am **Fractional Imputation for Missing Values in Linear Regression Models**—❖ Minhui Paik, Iowa State University; Michael D. Larsen, Iowa State University; Shin-Soo Kang, Iowa State University

8:50 am **2010 Census Count Imputation: Research Results Using Spatial Modeling**—❖ Robert D. Sands, U.S. Census Bureau

9:05 am **Bias-Reduced Multivariate Imputation: Use of the Locally Adjusted Predictive Mean Matching Method**—❖ Masato Okamoto, Statistical Research and Training Institute

9:20 am **Imputation of Economic Data Subject to Linear Restrictions Using a Sequential Regression Approach**—❖ Caren Tempelman, University of Groningen

9:35 am **Imputations via Triangular Regression-Based Hot Deck: Methods for Rapid Development of an Allocation Scheme and Preservation of the Covariance Matrix**—❖ Scott Susin, U.S. Census Bureau

9:50 am **Creating Imputation Classes Using Nonparametric Classification Trees**—❖ Darryl Creel, RTI International; Stephen Black, RTI International; Karol Krotki, RTI International; Jeremy Porter, RTI International

10:05 am **2010 Census Count Imputation: Research Results for Alternative Methods**—❖ Andrew Kilmer, U.S. Census Bureau

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501   CC-610
● ✪ Theory and Application of Survival Analysis—Contributed

Section on Statistics in Epidemiology, Biometrics Section, ENAR

Chair(s): Patrick Tarwater, The University of Texas Health Science Center at Houston

8:35 am **Proportional Hazards Model with Empirically Estimated Weights**—❖ Qing Pan, University of Michigan; Douglas E. Schaubel, University of Michigan

8:50 am **Power Estimation for Clearance of Live Vaccine Virus Using Weibull Survival Models with Interval Censoring**—❖ Daniel Zaccaro, Rho, Inc.; Barry Eggleston, Rho, Inc.; Susan Lieff, Rho, Inc.; Dennis Wallace, Rho, Inc.; Jon Hanifin, Oregon Health & Science University; Donald Leung, National Jewish Medical and Research Center; Marshall Plaut, National Institute of Allergy and Infectious

Diseases; Erica Brittain, National Institute of Allergy and Infectious Diseases; Robert Holliday, Rho, Inc.; Mark Slifka, Oregon Health & Science University

9:05 am **Comparison of Survival Methods and Polytomous Logistic Regression with Competing Risks**—❖ Robert Glynn, Brigham and Women's Hospital; Bernard Rosner, Harvard Medical School

9:20 am **Software for Survival Analysis of Studies Nested within Cohorts To Estimate Relative, Absolute, and Attributable Risks**—❖ Hormuzd Katki; Steven D. Mark, University of Colorado Health Sciences Center

9:35 am **Population Attributable Risk in the Presence of Cure/Immune Individuals: a Simulation-Based Study**—❖ Jayawant Mandrekar, Mayo Clinic College of Medicine; Melvin L. Moeschberger, The Ohio State University

9:50 am **Comparison of Methods to Model Mortality in the Presence of Time-Dependent Confounders**—❖ Ouhong Wang, Amgen Inc.; Trevor McMullan, Amgen Inc.

10:05 am **Estimating Lifetime Risk Accounting for Baseline Prevalence: High Total Cholesterol in Framingham Heart Study**—❖ Michael Pencina, Boston University; Ralph B. D'Agostino, Boston University; Ramachandran S. Vasan, Framingham Heart Study; Alexa Beiser, Boston University; Mark R. Cobain, Unilever Corporate Research

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502   CC-204
● Survey-Based Estimation V—Contributed

Section on Survey Research Methods

Chair(s): Donsig Jang, Mathematica Policy Research, Inc.

8:35 am **Weighting an Internet Panel Survey on Drug Use and Abuse**—❖ Harpe Gordek, RTI International; Rick L. Williams, RTI International; Lanting Dai, RTI International

8:50 am **A New Method for Weighting Survey Respondents**—❖ Feiming Chen, Spectra Marketing Systems

9:05 am **Nonparametric Regression with Complex Survey Data**—❖ Torsten Harms, Freie Universität Berlin; Pierre Duchesne, Université de Montréal

9:20 am **Combining Survey and Population Data in Inference**—❖ Raymond Chambers, University of Wollongong

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Thursday

9:35 am Dual Frame Estimation in the National Survey of College Graduates—❖ John Finamore, U.S. Census Bureau; David W. Hall, U.S. Census Bureau; Ronald S. Fecso, National Science Foundation

9:50 am Use Sampling Weights in Hierarchical Modeling—❖ Yue Jia, Southern Methodist University; S. Lynne Stokes, Southern Methodist University

10:05 am Anomaly of Survey Weights for American Indians and Alaska Natives—❖ Sunghee Lee, University of California, Los Angeles; John H. Kurata, University of California, Los Angeles; Yan Xiong, University of California, Los Angeles

503 CC-203
Broad Quality Issues in Organizations—Contributed

Section on Government Statistics

Chair(s): Eugene Burns, Bureau of Transportation Statistics

8:35 am Business Process Improvement in the Economic Programs Directorate at the U.S. Census Bureau—❖ Deborah Stempowski, U.S. Census Bureau; Shirin A. Ahmed, U.S. Census Bureau

8:50 am Assessing the Improvement of Data Quality: Surveys Revised Using Cognitive Techniques—❖ Kara Norman, Energy Information Administration; Carrie Hughes-Cromwick, Energy Information Administration

9:05 am Revisions and Other Changes in Official Statistics: Swedish Observations on Concepts and Terminology—❖ Eva Elvers, Statistics Sweden

9:20 am Improving the Job Opening and Labor Turnover Survey—❖ Darrell Greene, Bureau of Labor Statistics

9:35 am Data Quality Review at a Small Agency—❖ John Blachere, U.S. Consumer Product Safety Commission

9:50 am Tying Web Site Performance to Mission Achievement in the Federal Government—❖ Diane Milleville,

10:05 am Results from the International Survey of ASA Members—❖ Amy Luo, Ernst & Young LLP; Roberta Sangster, Bureau of Labor Statistics

504 CC-604
Bayesian Multiple Testing and Decision Theory—

Contributed

Section on Bayesian Statistical Science

Chair(s): David Dahl, Texas A&M University

8:35 am Capturing Uncertainty When the Event Probability Is Subject to Uncertainty—❖ Ehsan S. Soofi, University of Wisconsin-Milwaukee; Paul C. Nystrom, University of Wisconsin-Milwaukee; Masoud Yasai-Ardekani, George Mason University

8:50 am A New Bayes Rule—❖ James R. Meginniss, Vista Research, Inc.

9:05 am Estimating the Positive False Nondiscovery Rate and False Nondiscovery Rate in Multiple Hypothesis Testing—❖ Changzheng Chen, K & L Consulting Services Inc.; Burt Holland, Temple University

9:20 am Decision Theoretic Bayesian Hypothesis Testing with the Selection Goal—❖ Naveen Bansal, Marquette University

9:35 am Bayes Approach to Dependent Multiple Comparisons—❖ Lemuel Moye, The University of Texas Health Science Center at Houston

9:50 am A Bayesian Multiple Comparison Procedure for Order-Restricted Mixed Models—❖ Junfeng Shang, Bowling Green State University; Farroll T. Wright, University of Missouri; Joseph E. Cavanaugh, The University of Iowa

10:05 am Empirical Bayes Analysis on the Power Law Process—❖ Zhao Chen, Florida Gulf Coast University

505 CC-310
Simulation—Contributed

Section on Statistical Computing, Section on Physical and Engineering Sciences

Chair(s): Tanzy Love, Carnegie Mellon University

8:35 am Importance Sampling with the Huber and Elliptical Multivariate Logistic Distributions—❖ Stella W. Karuri, North Carolina State University; Buffy Hudson-Curtis, North Carolina State University; John Monahan, North Carolina State University

8:50 am Application of Randomized Spherical-Radial Integration to the E-step of the Monte Carlo Expectation Maximization algorithm for Generalized Linear Mixed Models—❖ Vadim Zipunnikov, Cornell University; James Booth,

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Thursday

Cornell University

9:05 am **An Implementation of Constrained Sequential Monte Carlo by Particle Resizing**—❖ Lixin Lang, The Ohio State University; Prem K. Goel, The Ohio State University; Bhavik R. Bakshi, The Ohio State University

9:20 am **Continuous Contour Monte Carlo for Marginal Density Estimation**—❖ Faming Liang, Texas A&M University

9:35 am **Annealing Contour Monte Carlo Algorithm for Real Protein Folding**—❖ Sooyoung Cheon, Texas A&M University

9:50 am **Simulation-Based Estimation**—❖ Weijie Cai, George Mason University; James Gentle, George Mason University

10:05 am **Solving Complex Network Optimization Problems Using Response Surface Methodology**—❖ Ying-Chao Hung, National Central University

506   CC-205
Bayesian Statistics and Methods—Contributed

IMS, Section on Bayesian Statistical Science

Chair(s): Man Sik Park, Colorado State University

8:35 am **Robust Prior Bayes Estimation on Infinite Dimensional Normal Mean and Spectral Densities**—❖ Herman Rubin, Purdue University; Hui Xu, Purdue University

8:50 am **Geometric Ergodicity of the Gibbs Sampler for the Probit Model**—❖ Vivekananda Roy, University of Florida

9:05 am **Markov Chain Monte Carlo Approximation of the Posterior in Hierarchical Linear Models**—❖ Galin Jones, University of Minnesota

9:20 am **On the Bayesian Detection of a Change in the Arrival Rate of a Poisson Process**—❖ Marlo Brown, Niagara University

9:35 am **The Bayesian Lasso**—❖ Trevor Park, University of Florida; George Casella, University of Florida

9:50 am **Robust Estimators and Influence Measures of Extremal Dependence**—❖ Yu-Ling Tsai, University of Western Ontario; Duncan Murdoch, University of Western Ontario; Debbie Dupuis, HEC Montréal

10:05 am **Floor Discussion**

507   CC-605

● Teaching and Technology—Contributed

Section on Statistical Education

Chair(s): Lewis VanBrackle, Kennesaw State University

8:35 am **Real-Time Classroom Data Collection**—❖ Jeffrey Lidicker, Temple University; Alicia Graziosi, Temple University

8:50 am **Visualizing Hypothesis Testing Concepts through the Power of PowerPoint**—❖ Edward Mansfield, The University of Alabama

9:05 am **Ways To Increase the Use of Graphs throughout the Introductory Applied Statistics Course**—❖ John McKenzie, Babson College

9:20 am **I Spy (Assessing the Reliability of Eye-Witness Testimony)**—❖ Mary Richardson, Grand Valley State University; Paul Stephenson, Grand Valley State University

9:35 am **Using Online Videos To Supplement Classroom Instruction**—❖ Monnie McGee, Southern Methodist University; Jing Cao, Southern Methodist University; Robert Skinner, Southern Methodist University; Ian K. Aberle, Southern Methodist University

9:50 am **Using Computer-Aided Learning To Teach Statistics**—❖ Tristan Denley, University of Mississippi; Kim Denley, University of Mississippi

10:05 am **A Probability Problem on the Number of Loops Formed When Ends of Strings Are Tied**—❖ Marepalli Rao, University of Cincinnati; Subramanyam Kasala, The University of North Carolina at Wilmington

508   CC-307
● Robust Statistical Methods—Contributed

Section on Nonparametric Statistics

Chair(s): Samuel Wu, University of Florida

8:35 am **Multivariate Spatial Median for Clustered Data**—❖ Denis Larocque, HEC Montrèal; Jaakko Nevalainen, University of Tampere; Hannu Oja, University of Tampere

8:50 am **Multivariate Robust Regression Based on General Depth Function**—❖ Weihua Zhou, The University of North Carolina at Charlotte

9:05 am **Robust Efficient Identification of an Outlying Cell in a Two-Way Layout with Replicates**—❖ Nathalie Malo, Genome Quebec Innovation Centre/McGill University

9:20 am **Robust Testing of the Nonparametric Behrens-**

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Fisher Hypothesis Using a Density Ratio Model—
❖ James Troendle, National Institute of Child Health & Human Development; Kostas Fokianos, University of Cyprus

9:35 am **Robust Nonparametric Confidence Intervals and Tests for the Median in the Presence of (c,r)-Contamination**—❖ Masakazu Ando, Japan Society for the Promotion of Science; Itsuro Kakiuchi, Kobe University; Miyoshi Kimura, Nanzan University

9:50 am **Inference in a Simple Random Effects Model with Low Replication and Nonnormal Distributions**—❖ Hongjuan Liu, University of California, Riverside; Xinping Cui, University of California, Riverside

10:05 am **On the Estimation of Disability-Free Life Expectancy**—❖ Kosuke Imai, Princeton University; Samir Soneji, Princeton University

509 CC-308

● New Methods and Practical Application—Contributed

Section on Quality and Productivity, Section on Physical and Engineering Sciences
Chair(s): James D. Williams, GE Global Research

8:35 am **Robust Designs for One-Way Random Effects Model Using Q-estimator**—❖ Julie Zhou, University of Victoria; Xiaolong Yang, University of Victoria

8:50 am **Beta-Geometric Distribution in Survival Modeling**—❖ Alfred Akinsete, Marshall University

9:05 am **Optimal Targeting under an Asymmetric Loss**—❖ Yvonne Zubovic, Indiana University Purdue University Fort Wayne; Chand K. Chauhan, Indiana University Purdue University Fort Wayne

9:20 am **Adaptively Trimmed L-Moments with Applications to Heavy-Tailed Distributions**—❖ Jonathan Hosking, IBM Research

9:35 am **Goodness-of-Fit Testing and Pareto-Tail Estimation**—❖ Yuri Goegebeur, University of Southern Denmark; Jan Beirlant, K. U. Leuven; Tertius de Wet, University of Stellenbosch

9:50 am **New Methods Using Levene-Type Tests for Hypotheses about Dispersion Differences**—❖ Xiaoni Liu, North Carolina State University; Dennis A. Boos, North Carolina State University;

Cavell Brownie, North Carolina State University

10:05 am **On Goodman and Kruskal's G and Stuart's Measure of Association**—❖ Jeffrey Green, Ball State University

510 CC-608

● Microarrays—Contributed

Biopharmaceutical Section, Biometrics Section, ENAR
Chair(s): Brian L. Wiens, Myogen, Inc.

8:35 am **Validation of Biomarkers Identified by Gene Expression Profiles**—❖ Boris Zaslavsky, U.S. Food and Drug Administration; Jing Han, U.S. Food and Drug Administration; Jawahar Tiwari, U.S. Food and Drug Administration; Raj K. Puri, U.S. Food and Drug Administration

8:50 am **Gene expression data analysis using the Gene Ontology**—❖ Jiajun Liu, North Carolina State University; Jacqueline Hughes-Oliver, North Carolina State University; Alan J. Menius, GlaxoSmithKline

9:05 am **Microarray, PCR, and Northern Blot: a Comparison**—Yongzeng Ding, Northwestern University; ❖ Borko Jovanovic, Northwestern University; Raymond Bergan, Northwestern University; Irene Helenowski, Northwestern University

9:20 am **Technical, Longitudinal, and Genetic Variation in Proteomic Analysis of Human Plasma**—❖ Imola K. Fodor, Lawrence Livermore National Laboratory; Todd H. Corzett, Lawrence Livermore National Laboratory; Megan Choi, Lawrence Livermore National Laboratory; Vicki L. Walsworth, Lawrence Livermore National Laboratory; Kenneth W. Turteltaub, Lawrence Livermore National Laboratory; Sandra L. McCutchen-Maloney, Lawrence Livermore National Laboratory

9:35 am **A Valid False Discovery Rate Procedure in Presence of Biased Null P-values**—❖ Hoa Phuong Nguyen, Johnson & Johnson

9:50 am **A Sequential Monte Carlo EM Solution to the Transcription Factor Binding Site Identification Problem**—❖ Edmund Jackson, Cambridge University; William Fitzgerald, Cambridge University

10:05 am **Statistical Issues in High-Throughput Screening**—❖ E. Venkatraman, MSKCC; Hakim Djaballah,

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Thursday

MSKCC

511 — CC-617
● Power and Sample-Size Calculations—Contributed
Biometrics Section

Chair(s): Sumithra Mandrekar, Mayo Clinic College of Medicine

8:35 am **Quick Calculation for Sample Size While Controlling False Discovery Rate with Application to Microarray Analysis**—❖ Peng Liu, Cornell University; J. T. Gene Hwang, Cornell University

8:50 am **Sample Size for FDR-Control in DNA Microarray Studies**—❖ Yongzhao Shao, New York University; Chi-Hong Tseng, New York University

9:05 am **Sample-Size Determination for Multiple Comparisons**—❖ Chi-Hong Tseng, New York University; Yongzhao Shao, New York University

9:20 am **Power Calculations for Linear Mixed Effects Models Using SAS/PROC MIXED**—❖ Andrzej Galecki, University of Michigan; Tomasz Burzykowski, Hasselt University

9:35 am **Power Analysis for Longitudinal Study Designs**—❖ Xin Tu, University of Rochester; Wan Tang, University of Rochester

9:50 am **Accuracy of P-Values and Sample Size in Comparing Skewed Clinical Trial Data**—❖ Jun Zhao, Organon; Gang Li, Johnson & Johnson

10:05 am **Does Pair-Matching on Baseline Measures Improve Power in a Pre-Post Cluster Randomized Trial?**—❖ Misook Park, Virginia Commonwealth University; Robert E. Johnson, Virginia Commonwealth University

512 — CC-615
● Methodology and Applications Based on Mixed Models—Contributed
Biometrics Section, ENAR

Chair(s): Hongmei Jiang, Northwestern University

8:35 am **A Two-step, Logistic Regression-Linear Mixed Model Method to Calculate CpG Island Methylator Phenotype (CIMP) Scores in Colorectal Cancer Patients**—❖ Wei Wei, M. D. Anderson Cancer Center; Jeffrey S. Morris, M. D. Anderson Cancer Center; Jean-Pierre Issa, M. D. Anderson Cancer Center

8:50 am **A Mixed Model Analysis of Errors in Radiotherapy**—❖ Alai Tan, The University of Texas Medical Branch; Giuseppe Sanguineti, The University of Texas Medical Branch; Daniel H. Freeman, The University of Texas Medical Branch

9:05 am **Flexible Random Intercept Models for Binary Outcomes Using Mixtures of Normals**—❖ Ming-Wen An, The Johns Hopkins University; Brian Caffo, The Johns Hopkins University; Charles Rohde, The Johns Hopkins University

9:20 am **Generalized Linear Mixed Models with Sparse Binary Outcome Data: Comparing Estimation Methods**—❖ Marie-Eve Beauchamp, McGill University; Robert W. Platt, McGill University; James A. Hanley, McGill University

9:35 am **Baseline Adjustment: Issues for Mixed-Effects Regression Models in Clinical Trials**—❖ Ronald Thisted, The University of Chicago

9:50 am **Performance of Pseudo-Rsquare Statistics in the Linear Mixed Model**—❖ Jean Orelien, SciMetrika LLC; Lloyd Edwards, The University of North Carolina at Chapel Hill

10:05 am **Floor Discussion**

513 — CC-602
● ✪ Health, Resources, Energy, and Ranking—Contributed
Business and Economics Statistics Section, Section on Health Policy Statistics

Chair(s): Polly Phipps, Bureau of Labor Statistics

8:35 am **Diseased-Based Price Indexe: a Cure Worse Than the Disease**—❖ Ralph Bradley, Bureau of Labor Statistics

8:50 am **Switching from Retrospective to Current-Year Data Collection in the Medical Expenditure Panel Survey-Insurance Component (MEPS-IC)**—❖ Anne T. Kearney, U.S. Census Bureau; John P. Sommers, Agency for Healthcare Research and Quality

9:05 am **Nonparametric Inferences on Conditional Quantile Processes**—❖ Chuan Goh, University of Toronto

9:20 am **Risk Sharing by Local Governments and Private Institutions in Environmental Transformation**—❖ Neela Manage, Florida Atlantic University

9:35 am **Nonparametric Transfer Function Model**—❖ Jun Liu, Georgia Southern University; Qiwei Yao, London School of Economics; Rong Chen, University of Illinois at Chicago

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✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

9:50 am **Rank-Based Estimation for Autoregressive Moving Average Time Series Models**—❖ Beth Andrews, Northwestern University

10:05 am **Bayesian Seemingly Unrelated Regression in Spatial Regional Model: Economics of Agglomeration in Japan from 1991–2000**—❖ Kazuhiko Kakamu, ; Wolfgang Polasek, Institute for Advanced Studies; Hajime Wago, Nagoya University

514 CC-601
● Regression, Time Series, and Adjustments—Contributed

Business and Economics Statistics Section

Chair(s): Christian K. Hansen, Eastern Washington University

8:35 am **Using Firm Optimization To Evaluate and Estimate Returns to Scale**—❖ Yuriy Gorodnichenko,

8:50 am **How Far to Asymptopia? Errors and Regressors with Realistically Asymmetric Distributions Generate Unreliable t-Statistics in Large Finite Samples**—❖ Robert McClelland, Bureau of Labor Statistics; Elliot Williams, Bureau of Labor Statistics

9:05 am **Effectiveness of Two-Stage Least Squares in Correcting Endogeneity Bias: a Monte Carlo Study**—❖ V. A. R. Samaranayake, University of Missouri-Rolla; Xujun Wang, University of Missouri-Rolla

9:20 am **Tuning Parameter Selectors for SCAD**—❖ Hansheng Wang, Peking University; Runze Li, Penn State; Chih-Ling Tsai, University of California, Davis

9:35 am **A Stepwise SPA Test for Data Snooping and Its Application on Fund Performance Evaluation**—❖ Yu-Chin Hsu, The University of Texas at Austin; Po-Hsuan Hsu, Columbia University

9:50 am **An Alternative Framework for Univariate and Multivariate Seasonal Adjustment**—❖ Stéphane Gregoir, CREST/INSEE

10:05 am **Nonlinear Properties of Conditional Returns under Scale Mixtures**—❖ Venkata Jandhyala, Washington State University; Stergios B. Fotopoulos, Washington State University

515 CC-609
● Psychiatric, Cardiovascular, and Infectious Disease Trials—Contributed

Biopharmaceutical Section, ENAR

Chair(s): T. PauletteCeesay, Merck & Co., Inc.

8:35 am **Comparison of Methods for Handling Missing Data in NonInferiority Psychiatric Trials**—❖ Isaac Nuamah, Johnson & Johnson Pharmaceutical R&D; Guohua Pan, Johnson & Johnson Pharmaceutical R&D; Kwang-Shi Shu, Johnson & Johnson Pharmaceutical R&D; Pilar Lim, Johnson & Johnson Pharmaceutical R&D

8:50 am **Differentiating Major Depressive Disorder in Youths with Attention Deficit Hyperactivity Disorder**—❖ Adriana Lopez, University of Pittsburgh; Satish Iyengar, University of Pittsburgh; Rasim Diler, University of Pittsburgh; William Daviss, University of Pittsburgh

9:05 am **Impact of Reference Range Selection on Long Term Growth Evaluations**—❖ Dustin Ruff, Eli Lilly and Company

9:20 am **Is There an Optimal Sample in Depression Studies?**—❖ Kenneth Liu, Merck & Co., Inc.; Duane Snavely, Merck & Co., Inc.

9:35 am **Placebo effect adjusted assessment of quality of life in placebo-controlled clinical trials**—❖ Jens Eickhoff, University of Wisconsin-Madison

9:50 am **Clinical Trial Designs To Study Rare Infectious Diseases**—❖ Yufeng Li, The University of Alabama at Birmingham; Seng-jaw Soong, The University of Alabama at Birmingham

10:05 am **Floor Discussion**

516 CC-618
Environmental Models and Assessing Gene-Environment Interactions—Contributed

Biometrics Section, WNAR, ENAR

Chair(s): Samiran Sinha, Texas A&M University

8:35 am **Statistical Issues Related to Development of a New Model of the Life Cycle of Salmonid Fishes in the Pacific Northwest**—❖ Steven G. Smith, U.S. Department of Commerce; James R. Faulkner, U.S. Department of Commerce; Richard W. Zabel, U.S. Department of Commerce/NOAA Fisheries

8:50 am **Breeding Value Estimation in Forest Genetics**—❖ Anne M. Millar, Dahousie University

9:05 am **A Model for Ordinal Data with Spatial and Temporal Dependency**—❖ Graciela Gonzalez-Farias, CIMAT; Rogelio Ramos-Quiroga, CIMAT; Felipe Peraza-Garay, Universidad Autonoma de

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Thursday

Sinaloa

9:20 am **New Method for Assessing Gene-Environment Interaction in Case-Only Studies**—❖ Shizue Izumi, Oita University; John Cologne, Radiation Effects Research Foundation

9:35 am **An Evaluation of the Benefit of Genetic Information in Discovering the Effect of an Environmental Factor on Disease**—❖ Abhijit Dasgupta, Thomas Jefferson University; Nilanjan Chatterjee, National Cancer Institute; Sholom Wacholder, National Cancer Institute

9:50 am **Analysis of an Interaction Threshold in a Mixture of Drugs and/or Chemicals**—❖ Adam Hamm, Rho, Inc.

10:05 am **Floor Discussion**

517 CC-616
● Statistical Methods in HIV Research—Contributed

Biometrics Section, ENAR

Chair(s): Hrishikesh Chakraborty, RTI International

8:35 am **Combining Retrospective and Prospective Data To Improve Markov Transition Parameter Estimation for Characterizing the Accumulation of HIV-1 Drug Resistance Mutations**—❖ Brian Healy, Harvard School of Public Health; Victor DeGruttola, Harvard School of Public Health; Marcello Pagano, Harvard School of Public Health

8:50 am **Inference for Multiple Kappas with Nested and Clustered Study Designs: Application to HIV Prevention and Sexual Abuse Research**—❖ Yan Ma, University of Rochester; Xin Tu, University of Rochester

9:05 am **On Sensitivity Analysis of HIV-Free Survival**—❖ Peng Zhang, Harvard University; Stephen W. Lagakos, Harvard University

9:20 am **Hierarchical Poisson Regression Models for HIV Vaccine Studies**—❖ Xin Huang, University of California, Los Angeles; W. John Boscardin, University of California, Los Angeles; Elissa Schwartz, Harvey Mudd College

9:35 am **Hypothesis Testing of Treatment Policies in Two-Stage Randomization Designs in Clinical Trials**—❖ Xiang Guo, sanofi-aventis; Anastasios A. Tsiatis, North Carolina State University

9:50 am **Design and Analysis of Neutralizing Antibody Assays in HIV-1 Vaccine Trials**—❖ Yunda Huang,

Fred Hutchinson Cancer Research Center; Peter Gilbert, Fred Hutchinson Cancer Research Center/University of Washington; David Montefiori, Duke University Medical Center; Steve Self, University of Washington

10:05 am **Antigen Scanning Methods for Identifying Peptide Signatures**—❖ Allan deCamp, Fred Hutchinson Cancer Research Center; Peter Gilbert, Fred Hutchinson Cancer Research Center/University of Washington

Invited Sessions 10:30 am–12:20 pm

518 CC-605
Releasing Tabular Data Collected under a Confidentiality Pledge: Going beyond Cell Suppression—Invited

Business and Economics Statistics Section

Organizer(s): Steve H. Cohen, Bureau of Labor Statistics

Chair(s): Jacob Bournazian, Energy Information Administration

10:35 am **A Comparison on Data Utility between Publishing Fixed Intervals versus Traditional Cell Suppression on Tabular Employment Data**—❖ Steve H. Cohen, Bureau of Labor Statistics; Bogong Li, Bureau of Labor Statistics

11:00 am **Quality-Preserving Controlled Tabular Adjustment: an Alternative to Cell Suppression for Disclosure Limitation of Tabular Magnitude Data**—❖ Lawrence H. Cox, National Center for Health Statistics

11:25 am **Combining Synthetic Data and Noise Infusion for Confidentiality Protection of the Quarterly Workforce Indicators**—❖ John Abowd, Cornell University; Lars Vilhuber, Cornell University

11:50 am **Protecting the Confidentiality of Commodity Flow Survey Tables by Adding Noise to the Underlying Microdata**—❖ Paul B. Massell, U.S. Census Bureau; J. Neil Russell, National Center for Education Statistics

12:15 pm **Floor Discussion**

519 CC-603
● Monte Carlo Methods for Computationally Intensive Problems—Invited

Section on Statistical Computing

Thursday

Organizer(s): *Yuguo Chen, University of Illinois at Urbana-Champaign*

Chair(s): *Yuguo Chen, University of Illinois at Urbana-Champaign*

10:35 am	**Espousing Modern Computation with Classical Statistics: Sufficiency, Ancillarity, and a New Generation of MCMC**—❖ Xiao-Li Meng, Harvard University
11:00 am	**Conditional Inference in Log-Linear Models: Exact Calculation versus Monte Carlo Approximation**—❖ James Booth, Cornell University
11:25 am	**Constrained Sequential Monte Carlo (CSMC)**—❖ Rong Chen, National Science Foundation
11:50 am	**Sequential Monte Carlo for Estimating Ratio of Normalizing Constants**—❖ Arnaud Doucet, The University of British Columbia
12:15 pm	**Floor Discussion**

520 ● ✪ Classification of Data with a Large Number of Polychotomous Variables—Invited

CC-303

Classification Society of North America, Section on Physical and Engineering Sciences

Organizer(s): *I-Li Lu, The Boeing Company*

Chair(s): *Stephen P. Jones, The Boeing Company*

10:35 am	**Similarity Index for Polychotomous Variables**—❖ Ranjan K. Paul, Boeing Math Group; I-Li Lu, The Boeing Company
11:00 am	**Learning Accurate Probability Estimates: Why and How?**—❖ Dragos D. Margineantu, The Boeing Company; Roman D. Fresnedo, The Boeing Company
11:25 am	**Assessing the Risk of Classification Decisions**—❖ Roman D. Fresnedo, The Boeing Company; Dragos D. Margineantu, The Boeing Company
11:50 am	Disc: Sabyasachi Basu, The Boeing Company
12:10 pm	**Floor Discussion**

521 ● ✪ Semiparametric and Nonparametric Modeling and Goodness-of-Fit Tests for Longitudinal Data—Invited

CC-310

WNAR, Biometrics Section, Section on Nonparametric Statistics

Organizer(s): *Annie Qu, Oregon State University*

Chair(s): *Annie Qu, Oregon State University*

10:35 am	**Analysis of Longitudinal Data with Semiparametric Estimation of Covariance**

Function—❖ Runze Li, Penn State; Jianqing Fan, Princeton University; Tao Huang, Yale University

11:00 am	**Bayesian Model Assessment Using Pivotal Quantities**—❖ Valen Johnson, M. D. Anderson Cancer Center
11:25 am	**Consistent Model Selection and Goodness-of-Fit Test for Marginal Regression Analysis of Longitudinal Data**—❖ Lan Wang, University of Minnesota; Annie Qu, Oregon State University
11:50 am	**Semiparametric Modeling in Applications**—❖ Naisyin Wang, Texas A&M University
12:15 pm	**Floor Discussion**

522 ● What Makes a Successful Career in Statistics? Ruminations and Advice from Veteran Statisticians who have Made Major Contributions Over the Long Haul—Invited

CC-3A

Social Statistics Section, Section on Statistical Education

Organizer(s): *Jai Choi, National Center for Health Statistics*

Chair(s): *Fritz J. Scheuren, NORC*

10:35 am	**Good (?) Advice for Young Statisticians**—❖ Robert V. Hogg, The University of Iowa
11:00 am	**Why Some Statisticians Never Die or Fade Away: Reflections on the Career of Joe Waksberg**—❖ David Morganstein, Westat; Daniel Levine, Westat; Ed Bryant, ; Graham Kalton, Westat
11:25 am	**A Personal '10 Commandments' for a Successful Career in Biostatistics**—❖ Theodore Colton, Boston University
11:50 am	Disc: Paul S. Levy, RTI International
12:10 pm	**Floor Discussion**

523 ● ✪ Statistical Issues in Emerging Areas in Cancer Research—Invited

CC-616

Biometrics Section, WNAR, ENAR

Organizer(s): *Shili Lin, The Ohio State University; Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center*

Chair(s): *Shili Lin, The Ohio State University*

10:35 am	**DNA Methylation, Aging, and Cancer**—❖ Kimberly Siegmund, University of Southern California; Paul Marjoram, University of Southern California; Darryl Shibata, University of Southern California

Thursday

11:00 am   **Molecular Classification of Prostate Tumors—** ❖ Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center

11:25 am   **Composite MicroRNA Target Predictions and Comparisons of Several Prediction Algorithms—** ❖ Jin Zhou, The Ohio State University; Vincent Melfi, Michigan State University; Joe Verducci, The Ohio State University; Shili Lin, The Ohio State University

11:50 am   Disc: Terence P. Speed, University of California, Berkeley

12:10 pm   **Floor Discussion**

524   **CC-3B**
Statistical Models of Natural Language Text— Invited
IMS, Section on Statisticians in Defense and National Security
Organizer(s): Michael Collins, Massachusetts Institute of Technology
Chair(s): Christopher Genovese, Carnegie Mellon University

10:35 am   **Structured Prediction Problems in NLP—** ❖ Michael Collins, Massachusetts Institute of Technology

11:20 am   **Statistical Approaches for Machine Translation—** ❖ Dan Klein, University of California, Berkeley

12:05 pm   **Floor Discussion**

525   **CC-608**
● Population-Based Genetic Association Studies: Using Genetics/Genomics To Advance Public Health—Invited
Section on Statistics in Epidemiology, Section on Health Policy Statistics, WNAR, ENAR
Organizer(s): Philip S. Rosenberg, National Cancer Institute
Chair(s): Philip S. Rosenberg, National Cancer Institute

10:35 am   **Gene-Environment Interaction: Implications for Public Health and Methodological Challenges—** ❖ Ramal Moonesinghe, Centers for Disease Control and Prevention; Muin Khoury, Centers for Disease Control and Prevention

10:55 am   **Candidate Gene Association Studies: Power and Sample Size Requirements—** ❖ Bingshu E. Chen, National Cancer Institute; Philip S. Rosenberg, National Cancer Institute

11:15 am   **Diversity of Haplotype Configurations in the Human Genome: Implications for Genome-Wide Association Studies—** ❖ Shuying S. Li, Fred

Hutchinson Cancer Research Center

11:35 am   **Risk Estimation in Persons at Genetic Risk of Cancer—** ❖ Sining Chen, Johns Hopkins Bloomberg School of Public Health; Edwin S. Iversen, Jr., Duke University; Giovanni Parmigiani, The Johns Hopkins University

11:55 am   Disc: Mitchell H. Gail, National Cancer Institute

12:15 pm   **Floor Discussion**

526   **CC-609**
Survival Analysis with Medical Applications: Parametric and Nonparametric Adjustment for Survival Function—Invited
Biopharmaceutical Section, Biometrics Section, ENAR, WNAR
Organizer(s): Chaofeng Liu, Eli Lilly and Company
Chair(s): Chaofeng Liu, Eli Lilly and Company

10:35 am   **Evaluating the Added Value of an Expensive Marker in Predicting Survival—** ❖ Tianxi Cai, Harvard University

11:00 am   **Adjusted Nelson-Aalen Estimator with Inverse Probability of Treatment Weighting—** ❖ Jun Xie, Purdue University; Chaofeng Liu, Eli Lilly and Company

11:25 am   **Split Point Estimation for Logistic Regression—** ❖ Ian McKeague, Columbia University

11:50 am   Disc: Gang Li, University of California, Los Angeles

12:10 pm   **Floor Discussion**

Invited Panels 10:30 am–12:20 pm

527   **CC-2A**
● ✪ Misuse of Statistical Methodology—Invited
Committee on Applied Statisticians, Section on Statistical Education, Section on Statistical Consulting, Section on Teaching Statistics in the Health Sciences
Organizer(s): Joyce N. Orsini, Fordham University
Chair(s): Joyce N. Orsini, Fordham University

Panelists: ❖ Gipsie B. Ranney, Belmont University

❖ Michael Tveite, Guidant Corporation

❖ Kevin Murphy, Grand Prairie Accessory Services

❖ Michael Round, Theory of Constraints for Education

12:15 pm   **Floor Discussion**

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Topic-Contributed Sessions
10:30 am–12:20 pm

528   CC-613
● Assessing Treatment Effect in Cardiovascular Medical Device Clinical Trials—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Organizer(s): Lilly Yue, U.S. Food and Drug Administration; Peter S. Lam, Boston Scientific Corporation

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

10:35 am   **Using Different Multiple Imputation Strategies in Estimating Treatment Effects in Drug-Eluting Stent Trials—**❖ Liang Li, Boston Scientific Corporation; Helen Chmiel, Boston Scientific Corporation; Hong Wang, Boston Scientific Corporation

10:55 am   **Survival Analysis of Repeated Events in Drug-Eluting Stent Trials—**❖ Yongyi Yu, Boston Scientific Corporation; Jian Huang, Boston Scientific Corporation; Brian Johnson, Boston Scientific Corporation; Hong Wang, Boston Scientific Corporation

11:15 am   **Bootstrap Generalized Estimating Equation for Treatment Differences for Randomization Trials with Correlated Data—**❖ Duo Zhou, Medtronic, Inc.; Zengri Wang, Medtronic, Inc.

11:35 am   **Gender by Treatment Interaction on Coronary Lesion Revascularization in Drug-Eluting Stent Trials—**❖ Zheng Zhou, Boston Scientific Corporation; Liang Li, Boston Scientific Corporation; Hong Wang, Boston Scientific Corporation

11:55 am   Disc: Heng Li, Center for Devices and Radiological Health

12:15 pm   **Floor Discussion**

529   CC-201
New Technology for Data Collection—Topic-Contributed

Section on Government Statistics

Organizer(s): Michael P. Cohen, Bureau of Transportation Statistics

Chair(s): Kennon Copeland, IMS Health

10:35 am   **The Impact of Using Hand-Held Computers To Reduce Count Imputation in the 2004 Census Test—**❖ Jamie Burnham, U.S. Census Bureau; Rosemary Byrne, U.S. Census Bureau

10:55 am   **Staffing and Infrastructure Issues Related to Hand-Held Computer-Based Data Collection in the 2004 Nonresponse Follow-up Operation—**❖ Darlene Moul, U.S. Census Bureau; Geraldine Burt, U.S. Census Bureau

11:15 am   **Electronic Wage Reporting Customer Satisfaction: a Good News Case Study—**❖ Stephen Dienstfrey, Schulman, Ronca & Bucuvalas, Inc.; Michael Greenberg, U.S. Social Security Administration

11:35 am   **Evaluating the Collection of Global Positioning System Coordinates with Hand-Held Computers in the 2004 Census Test—**❖ Diane Barrett, U.S. Census Bureau; Doug Olson, U.S. Census Bureau

11:55 am   Disc: Walter W. Hill, St. Mary's College of Maryland

12:15 pm   **Floor Discussion**

530   CC-307
✪ Statistics of Extremes—Topic-Contributed

IMS

Organizer(s): Liang Peng, Georgia Institute of Technology

Chair(s): Tailen Hsing, The Ohio State University

10:35 am   **Dependence Estimation and Prediction in Max-Stable Random Fields—**❖ Daniel Cooley, Colorado State University; Philippe Naveau, Laboratoire des Sciences du Climat et de l'Environnement; Richard Davis, Colorado State University

10:55 am   **Analyzing the Extreme Behavior of Large-Scale Meteorlogical Variables Found To Have Influence on Severe Storms and Tornadic Events Using Global Reanalysis Data—**❖ Eric Gilleland, National Center for Atmospheric Research; Matt Pocernich, National Center for Atmospheric Research

11:15 am   **Variance Reduction in Multiparameter Likelihood Models—**❖ Liang Peng, Georgia Institute of Technology; Ming-Yen Cheng, National Taiwan University

11:35 am   **Bootstrap Confidence Band for Dependence Functions in Extreme-Value Statistics—**❖ Yongcheng Qi, University of Minnesota, Duluth; Liang Peng, Georgia Institute of Technology

11:55 am   **Asymptotically (In)dependent Multivariate Maxima of Moving Maxima Processes—**❖ Zhengjun Zhang, University of Wisconsin-

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✪ Themed Session   ● Applied Session   ❖ Presenter   **CC**-Washington State Convention & Trade Center   **H**-Grand Hyatt Seattle   **S**-Sheraton Seattle Hotel & Towers

Thursday

Madison

12:15 pm   **Floor Discussion**

531   CC-607
● Bayesian Biostatistical Modeling—Topic-Contributed

Section on Bayesian Statistical Science, Biometrics Section, WNAR, ENAR

Organizer(s): Li-Jung Liang, University of California, Los Angeles

Chair(s): Kaushik Ghosh, New Jersey Institute of Technology

10:35 am   **A Bayesian Adaptive Design for Two Drug Combination Phase I Clinical Trials—**❖ Lu-May Chiang, ; William G. Cumberland, University of California, Los Angeles

10:55 am   **A Bayesian Model Selection Approach for Simultaneous Clustering of Treatment Intercepts and Slopes—**❖ Susan Alber, University of California, Los Angeles; Robert Weiss, University of California, Los Angeles

11:15 am   **Hierarchical Zero-Inflated Poisson Models—**❖ Warren Comulada, Center for Community Health; Robert Weiss, University of California, Los Angeles

11:35 am   **Using a Bayesian Phylogenetic Dual Change-Point Model To Detect HIV-1 Intrahost Recombination—**❖ Erik Bloomquist, University of California, Los Angeles; Christina Kitchen, University of California, Los Angeles; Marc A. Suchard, University of California, Los Angeles; Vladimir N. Minin, University of California, Los Angeles; Hua Guo, University of California, Los Angeles

11:55 am   **Hierarchical Post-Processing of Longitudinal Bayesian Phylogenetic Analyses Using Semiparametric Regression Models—**❖ Li-Jung Liang, University of California, Los Angeles; Robert Weiss, University of California, Los Angeles; Marc A. Suchard, University of California, Los Angeles

12:15 pm   **Floor Discussion**

532   CC-602
✪ Applications of Modeling and Simulation for Homeland Security—Topic-Contributed

Section on Statisticians in Defense and National Security

Organizer(s): David Banks, Duke University

Chair(s): Jeffrey L. Solka, Naval Surface Warfare Center

10:35 am   **Modeling the Interaction between Intelligent Site**

Selection and Other Stochastic Processes with Applications to Terrorism—❖ Michael Porter, University of Virginia; Charles D. Robinson, University of Virginia; Donald E. Brown, University of Virginia

10:55 am   **Issues in the Analysis of Combat Data—**❖ Michael Last, National Institute of Statistical Sciences

11:15 am   **Strategies for Validating Complex Simulations—**❖ David Banks, Duke University

11:35 am   **The Brave New World of Designing Simulation Experiments for Defense and Homeland Security Applications—**❖ Thomas W. Lucas, Naval Postgraduate School; Susan M. Sanchez, Naval Postgraduate School

11:55 am   Disc: Sarah Michalak, Los Alamos National Laboratory

12:15 pm   **Floor Discussion**

533   CC-2B
✪ Record Linkage—Topic-Contributed

Section on Survey Research Methods, Section on Statisticians in Defense and National Security

Organizer(s): William E. Winkler, U.S. Census Bureau

Chair(s): Thomas Herzog, U.S. Department of Housing and Urban Development

10:35 am   **Automatically Estimating Record Linkage False Match Rates—**❖ William E. Winkler, U.S. Census Bureau; William E. Yancey, U.S. Census Bureau

10:55 am   **Record Linkage and Automatic Maintenance Activities—**❖ Holly Smith, U.S. Department of Agriculture; Denise Abreu, National Agricultural Statistics Service; Kara Daniel, National Agricultural Statistics Service; Stan Hoge, National Agricultural Statistics Service; Bill Iwig, National Agricultural Statistics Service

11:15 am   **A Study of String Comparator Performance on Census Name Data—**❖ William E. Yancey, U.S. Census Bureau

11:35 am   **A Comparison of Big Match and the Current NDI Record Selection System Using Artificial Data—**❖ Bryan Sayer, Social & Scientific Systems, Inc.

11:55 am   **Using Test Databases To Evaluate Record Linkage Models and Train Linkage Practitioners—**❖ Michael H. McGlincy, Strategic Matching, Inc.

12:15 pm   **Floor Discussion**

Regular Contributed Sessions
10:30 am–12:20 pm

534   CC-203
● Survey-Based Estimation VI—Contributed
Section on Survey Research Methods

Chair(s): James Chromy, RTI International

10:35 am   **Detection Method for the Sources of Change in Estimations**—❖ Serge Godbout, Statistics Canada

10:50 am   **Model-Based Approach in Two-Stage Sampling of Audit Data**—❖ Yan Liu, NORC; Mary Batcher, Ernst & Young LLP

11:05 am   **Confidence Interval Coverage in Stratified Sample Design**—❖ Jinhee Yang, Ernst & Young LLP; Wendy Rotz, Ernst & Young LLP

11:20 am   **Evaluating a Calibration Weighting Scheme for Elementary Indexes for Commodities and Services in the U.S. Consumer Price Index**—❖ Sylvia G. Leaver, Bureau of Labor Statistics; Robert A. Cage, Bureau of Labor Statistics; Darin T. Solk, Bureau of Labor Statistics

11:35 am   **Comparing Procedures To Estimate the Measure of Heteroscedasticity and Their Effect on Estimating Totals and Their Variances**—❖ Kimberly Henry, Internal Revenue Service; Richard Valliant, University of Michigan

11:50 am   **Power-Shrink Excessive Weights Preferred to Trimming**—Naihua Duan, University of California, Los Angeles; Xiao-Li Meng, Harvard University; ❖ Chihnan Chen, Boston University; Margarita Alegria, Cambridge Health Alliance

12:05 pm   **Confidence Interval Coverage in Complex Model-Based Estimation with Deep Stratification**—❖ Archana Joshee, Ernst & Young LLP; Wendy Rotz, Ernst & Young LLP

535   CC-606
Bayesian and Empirical Bayesian Models—Contributed
Section on Bayesian Statistical Science

Chair(s): Lei Qian, University of California, Los Angeles

10:35 am   **The Analysis of Fluctuating Asymmetry as a Measure of Developmental Instability**—❖ Stefan Van Dongen, University of Antwerp

10:50 am   **Empirical Bayes Distribution Rule for Classification Using Unsupervised Learning**—❖

Shui-Ching Chang, The Oversea Chinese Institute of Technology; Tze-Fen Li, National Chung Hsing University

11:05 am   **Bayesian Parameter Estimation of Stable Distributions**—❖ Ece Oral, Hacettepe University; Cenap Erdemir, Hacettepe University

11:20 am   **Bayesian Analysis and Model Selection in Closed-Population, Capture-Recapture Models**—❖ Ross Gosky, Bucknell University

11:35 am   **Estimation of Parameter Covariance for a Penalized Likelihood Approach to Estimation of Kinetic Models in PET (Positron Emission Tomography)**—❖ Michelle Byrtek, Western Washington University; Finbarr O'Sullivan, University College Cork

11:50 am   **Empirical Bayes Estimation for Additive Hazards Regression Models**—❖ M. Brent McHenry, Bristol-Myers Squibb Company; Debajyoti Sinha, Medical University of South Carolina; Stuart Lipsitz, Brigham and Women's Hospital; Malay Ghosh, University of Florida

12:05 pm   **Floor Discussion**

536   CC-204
Data Collection and Missing Data Issues in Health Surveys—Contributed
Section on Health Policy Statistics

Chair(s): Carolyn Rutter, Group Health Cooperative

10:35 am   **A New Method To Evaluate the Completeness of Case Ascertainment by a Cancer Registry**—❖ Barnali Das, National Cancer Institute; Limin X. Clegg, National Cancer Institute; Eric J. Feuer, National Cancer Institute; Linda Pickle, National Cancer Institute

10:50 am   **The Early Release Program of the U.S. National Health Interview Survey**—❖ Jeannine Schiller, National Center for Health Statistics; Jane Gentleman, National Center for Health Statistics; Eve Powell-Griner, National Center for Health Statistics

11:05 am   **Providing Health Information to the Public: Analysis of National Audience Data for Public Health Communication Planning**—❖ William Pollard, Centers for Disease Control and Prevention

11:20 am   **Measuring Menses: Issues with Patient-Reported Menstrual Cycle Assessment**—❖ Stephanie Land,

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Thursday

University of Pittsburgh; Gina Sucato, Children's Hospital; Marcie Ritter, University of Pittsburgh; Reena Cecchini, University of Pittsburgh; Sandra Swain, National Cancer Institute; Patricia Ganz, University of California, Los Angeles

11:35 am   **Childhood Obesity: What's the Mother's Marital Status Got to Do with It?**—❖ Soma Roy, The Ohio State University; Elizabeth Stasny, The Ohio State University

11:50 am   **Floor Discussion**

537   CC-205
● Small-Area Estimation—Contributed
Section on Survey Research Methods

Chair(s): Georgia Roberts, Statistics Canada

10:35 am   **Accounting for Interviewer Variability in Small-Area Estimation**—❖ Benmei Liu, Westat; Partha Lahiri, University of Maryland

10:50 am   **Using Administrative Records with Model-Assisted Estimation for the American Community Survey**—❖ Robert Fay, U.S. Census Bureau

11:05 am   **Small-Area Prevalence Estimates Using two Surveys**—❖ William Davis, National Cancer Institute; Charuta Soman, IMS Health; Zhaohui Zou, Information Management Services, Inc.

11:20 am   **Interval Estimation in Small-Area Problems**—❖ Snigdhansu Chatterjee, University of Minnesota; Partha Lahiri, University of Maryland; Huilin Li, University of Maryland

11:35 am   **Nonparametric M-Quantile Small-Area Estimation via Penalized Splines**—❖ Monica Pratesi, Universitŕ di Pisa; Nicola Salvati, University of Pisa; Maria G. Ranalli, University of Perugia

11:50 am   **Using Regression To Combine Information from Multiple Surveys for Small-Domain Estimation**—❖ Takis Merkouris, Statistics Canada

12:05 pm   **Using the t-Distribution in Small-Area Estimation: an Application to SAIPE State Poverty Models**—❖ Elizabeth Huang, U.S. Census Bureau; William R. Bell, U.S. Census Bureau

538   CC-612
● ✪ Model Diagnostics—Contributed
Section on Statistics in Epidemiology

Chair(s): Michael Pencina, Boston University

10:35 am   **Semiparametric Estimation of the ROC Surface**—

❖ Zheng Zhang, University of Washington

10:50 am   **Model Diagnostics for Generalized Linear Mixed Models Using Chi-Square Test**—❖ Zhonghua Gu, University of California, Davis

11:05 am   **Single-Sample Predictive Model Validation via Variance Components Estimated through Resampling and Cross-Validation**—❖ Michael Jones, University of Sydney; Petra Macaskill, University of Sydney

11:20 am   **Investigating the Categories for Cholesterol and Blood Pressure for Risk Assessment of Death Due to Coronary Heart Disease**—❖ Billy Franks, Jr., Astellas Pharma Inc.; Daniel McGee, Sr. , Florida State University

11:35 am   **Survival and Classification Tree Analyses in Medicine: Usefulness in Identifying the Predisposing and Precipitating Health Conditions and Events Associated with Death**—❖ Gail McAvay, Yale University; Mary Tinetti, Yale University School of Medicine; Thomas Gill, Yale University; Heather G. Allore, Yale University

11:50 am   **Adjusting ROC Curves Estimation for Covariates without Gold Standard Tests**—❖ Chong Wang, Cornell University; Bruce W. Turnbull, Cornell University; Yrjˆ Grˆhn, Cornell University; Sˉren Nielsen, The Royal Veterinary and Agricultural University

12:05 pm   **Combination of Multiple Tests by Likelihood and Bayesian Approaches**—❖ Carol Lin, Bristol-Myers Squibb Company; Lance Waller, Emory University

539   CC-304
● Climate, Weather, and Health: Novel Applications of Spatial and Temporal Analyses—Contributed
Section on Statistics and the Environment

Chair(s): Kristen M. Foley, North Carolina State University

10:35 am   **Predicting Spatial Exceedance Regions**—❖ Jian Zhang, The Ohio State University; Noel Cressie, The Ohio State University; Peter F. Craigmile, The Ohio State University

10:50 am   **A Geostatistical Method for Texas NexRad Data Calibration**—❖ Bo Li, Texas A&M University; Marian Eriksson, Texas A&M University; Raghavan Srinivasan, Texas A&M University; Michael Sherman, Texas A&M University

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

11:05 am **Identifying Effect Modifiers in Air Pollution—** ❖ Sandrah P. Eckel, Johns Hopkins Bloomberg School of Public Health; Thomas A. Louis, The Johns Hopkins University

11:20 am **Identifying Environmental Risk Factors of Childhood Obesity—**❖ Rong Qi, Indiana University; Gilbert Liu, Indiana University; Jeffrey Wilson, Indiana University Purdue University Indianapolis; Jun Ying, Indiana University

11:35 am **Space Time Analyses of Adverse Pregnancy Outcomes in Allegheny County, Pennsylvania—** ❖ M. Abdus Sattar, University of Pittsburgh

11:50 am **Prediction of State Cancer Case Counts and Rates by Hierarchical Spatio-Temporal Models—**❖ Linda Pickle, National Cancer Institute

12:05 pm **Testing for Spatial Dependence Based on the SAR Model—**❖ Hongfei Li, The Ohio State University; Catherine A. Calder, The Ohio State University; Noel Cressie, The Ohio State University

540 CC-206
Forecasting and Database Modeling in Marketing Applications—Contributed

Section on Statistics and Marketing

Chair(s): Steve Millard, Probability, Statistics, & Information

10:35 am **Some Challenges in Sales Forecasting in a Global Automotive Environment—**❖ Lynn Truss, GM Research & Development; Satish Sehgal, GM India Science Lab; Atul Saroop, GM India Science Lab; Balaji Jidugu, GM India Science Lab; Peiling Wu, GM Research & Development; Diane Gibbons, GM Research & Development

10:50 am **An Empirical Analysis of Customized and Dynamic Cross-Selling Campaigns—**❖ Alan Montgomery, Carnegie Mellon University; Baohong Sun, Carnegie Mellon University; Shibo Li, Indiana University

11:05 am **A New Methodology to Modeling Prospects of Corporate Database—**❖ Kangkang Xu, Experian

11:20 am **Estimating Factor Effects with Data from Heterogeneous Experimental Units—**❖ Sam Weerahandi, Time Warner; Martin Koschat, Time Warner

11:35 am **Hybrid GA-Based Constrained Optimization and Search for High-Potential Product Configurations—**❖ Brandon L. Paris, General Mills, Inc.; Lynd D. Bacon, Sighthound Solutions,

Inc.; Jeff Hunter, General Mills, Inc.; Ashwin Sridhar, Sighthound Solutions, Inc.

11:50 am **Falling into the Data Mine: Nontechnical Errors for Database Model Builders—**❖ Sam Koslowsky, Harte Hanks CRM Analytics

12:05 pm **Churn Modeling in a Noncontractual Setting—** ❖ Enping Mai, Syracuse University; Raja Velu, Syracuse University

541 CC-611
● Repeated Measures and Longitudinal Data—Contributed

Biopharmaceutical Section, Biometrics Section, ENAR

Chair(s): Irina Kats, BIM, Inc.

10:35 am **A Multivariate Truncated Model Combined with Multiple Imputation for Longitudinal Data with Nonignorable Missing—**❖ Rong Liu, Merck & Co., Inc.; Viswanathan Ramakrishnan, Virginia Commonwealth University

10:50 am **Analysis of Longitudinal Trials with Non-MCAR Dropouts and Potentially Non-Normal Data: Is Weighted GEE the Solution?—**❖ Robin Mogg, Merck Research Laboratories; Devan V. Mehrotra, Merck Research Laboratories

11:05 am **Analysis of Repeated Measures Random Length Data—**❖ Ana-Maria Iosif, University of Pittsburgh; Allan R. Sampson, University of Pittsburgh

11:20 am **Jointly Modeling the Dropout Process and Repeated Categorical Outcome—**❖ Yuting Zhang, MedFocus; Brent J. Shelton, University of Kentucky

11:35 am **Inference for Skew-Normal Data Using Stochastic Hellinger Distance Method and Stochastic MLE—**❖ Serena Chan, Cornell University; Anand Vidyashankar, Cornell University

11:50 am **Identifying Worsening MS Patients Using a Generalized Mahalanobis Distance Metric—** ❖ Daniel Bonzo, Serono, Inc.

12:05 pm **Distributions of Patterns in Markov Chains with Stopping Rules—**❖ Francis Hsuan, Temple University; Milton Parnes, Temple University; Thomas E. Bradstreet, Merck Research Laboratories

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Thursday

● **Principal Components, Predication, and Optimization—Contributed**

Business and Economics Statistics Section

Chair(s): Kellie Wills, U.S. Census Bureau

10:35 am **Likelihood-Based Estimate for the Number of Principal Components—**❖ Lifang Hsu, Le Moyne College; Pinyuen Chen, Syracuse University

10:50 am **Long Run Canonical Correlations: Estimation, Inference, and Usefulness in Econometric Analysis of Time Series—**❖ Kalidas Jana, Trinity University; Alastair R. Hall, North Carolina State University

11:05 am **Ex Post and Ex Ante Prediction of Unobserved Multivariate Time Series: a Structural Model-Based Approach—**❖ Fabio Nieto, National University of Colombia

11:20 am **Model-Based Sequence Clustering with Application to Resource Pattern Identification in B2B Services Engagements—**❖ Bonnie K. Ray, IBM T. J. Watson Research Center; Jianying Hu, IBM Research

11:35 am **Applications of Direct Search Optimization Methods—**❖ Otto Schwalb, ; Timothy H. Lee,

11:50 am **Preliminary Micro Data Results from the Business List Comparison Project—**❖ Lucia Foster, U.S. Census Bureau; Joel Elvery, Bureau of Labor Statistics; C. J. Krizan, U.S. Census Bureau; David Talan, Bureau of Labor Statistics

12:05 pm **Establishment Survival Using the BLS Longitudinal Database—**❖ Merissa Piazza, Bureau of Labor Statistics

543 CC-618

Inference for Parameters of Continuous Distribution—Contributed

Biometrics Section

Chair(s): Patches Johnson, Roanoke College

10:35 am **Bias-Corrected Point and Interval Estimates for Lognormal Mean—**❖ Abu Minhajuddin, The University of Texas Southwestern Medical Center at Dallas; Xian-Jin Xie, The University of Texas Southwestern Medical Center at Dallas

10:50 am **Preliminary Test Estimator for the Mean of Bivariate Normal—**❖ Xiaoping Zhu, Novartis Pharmaceuticals Corporation; Chien-Pai Han, The University of Texas at Arlington

11:05 am **Inferences on Correlation Coefficients: One-Sample, Independent, and Correlated Cases—** Kalimuthu Krishnamoorthy, University of Louisiana at Lafayette; ❖ Yanping Xia, University of Louisiana at Lafayette

11:20 am **A New Approach for a Linear Combination of K Multinormal Mean Vectors—**❖ Shu-Hui Lin, National Taichung Institute of Technology; Jack C. Lee, National Chiao Tung University

11:35 am **Estimation of Multivariate Normal Secondary Parameters in Group Sequential Trials—**❖ Kai Fun Yu, National Institute of Child Health & Human Development; Chengqing Wu, National Institute of Child Health & Human Development; Aiyi Liu, National Institute of Child Health & Human Development

11:50 am **The Median Test for Cluster-Correlated Data—** ❖ Rick L. Williams, RTI International; Angela Pitts, RTI International

12:05 pm **Bivariate Growth Charts—**❖ Ying Wei, Columbia University

544 CC-619

● **Applications of Statistical Graphics—Contributed**

Section on Statistical Graphics

Chair(s): Weijie Cai, George Mason University

10:35 am **Importing Graphics for Statistical Plots—**❖ Paul Murrell, The University of Auckland

10:50 am **An Implemetation of the Grammar of Graphics in R: ggplot—**❖ Hadley Wickham, Iowa State University

11:05 am **Visualization Challenges in Internet Traffic Research—**❖ Cheolwoo Park, University of Georgia

11:20 am **What Can Match 'a Daisy a Day'?—**❖ Rachel Graham, Iowa State University; Heike Hofmann, Iowa State University

11:35 am **Design Strategies for Sampling in Graphs—** ❖ James Rosenberger, Penn State; Hong Xu, Penn State; Steve Thompson, Simon Fraser University

11:50 am **Advanced Sequential Sampling Methods and Their Implementation within a Portable Computing Environment—**❖ Arunava Chakravartty, University of California, Riverside; Daniel R. Jeske,

12:05 pm **Floor Discussion**

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Thursday

545   CC-614

● Semi- and Nonparametric Methods—Contributed

Biometrics Section, Section on Nonparametric Statistics

Chair(s): Donglin Zeng, The University of North Carolina at Chapel Hill

10:35 am   **Improving the Effciency of the Log-Rank Test Using Auxiliary Covariates—**❖ Xiaomin Lu, North Carolina State University; Anastasios A. Tsiatis, North Carolina State University

10:50 am   **Fitting Density Function with Exponential Polynomials—**❖ Eugene Demidenko, Dartmouth Medical School

11:05 am   **U-Statistics for Right-Censored Data—**❖ Dipankar Bandyopadhyay, University of Georgia

11:20 am   **Extension of the Rank Sum Test for Clustered Data: Two Group Comparisons with Group Membership Defined at the Subunit Level—**❖ Bernard Rosner, Harvard Medical School; Robert Glynn, Brigham and Women's Hospital; Mei-Ling Ting Lee, Harvard Medical School

11:35 am   **Outputation Permutation: Exact Inference for Complex Clustered Data—**❖ Dean A. Follmann, National Institute of Allergy and Infectious Diseases; Michael P. Fay, National Institute of Allergy and Infectious Diseases

11:50 am   **A New Semiparametric Regression Approach for Modeling Group Differences—**❖ Qin Yu, University of Rochester; Xin Tu, University of Rochester

12:05 pm   **Floor Discussion**

546   CC-615

Multiple Comparisons and Testing—Contributed

Biometrics Section

Chair(s): Yongming Qu, Eli Lilly and Company

10:35 am   **The Combined p-value for Detecting Differentially Expressed Genes from High Density Oligonucleotide Arrays—**❖ Ann Hess, Colorado State University; Hari Iyer, Colorado State University

10:50 am   **A Two-Step Multiple Comparison Procedure for a Large Number of Tests and Multiple Treatments—**❖ Hongmei Jiang, Northwestern University; Rebecca W. Doerge, Purdue University

11:05 am   **Optimality Results for the Bonferroni Method with Large m—**❖ Yonggang Lu, Texas Tech University; Peter Westfall, Texas Tech University

11:20 am   **Control of the Family-Wise Error Rate for Multiple Correlated Test Outcomes: the Effect of Stress on Cytokine Production Prior to Spaceflight—**❖ Alan Feiveson, NASA; Satish Mehta, Enterprise Advisory Services, Inc.; Duane L. Pierson, NASA Johnson Space Center

11:35 am   **Effects of Dependencies in High-Dimensional Multiple Testing Problems—**❖ Kyung In Kim, Eindhoven University of Technology; Mark A. van de Wiel, Eindhoven University of Technology

11:50 am   **Hypothesis Testing of High-Dimensional Data with Applicaitons to Medical Image Analysis—**❖ Kun Nie, Boehringer Ingelheim

12:05 pm   **Floor Discussion**

547   CC-617

● Hypothesis Testing in Genetics—Contributed

Biometrics Section, ENAR

Chair(s): Shrikant I. Bangdiwala, The University of North Carolina at Chapel Hill

10:35 am   **Testing Hardy-Weinberg Equilibrium for Loci on the X Chromosome—**Gang Zheng, National Heart, Lung, and Blood Institute; ❖ Jungnam Joo, National Institutes of Health; Chun Zhang, Roche Palo Alto LLC; Nancy L. Geller, National Heart, Lung, and Blood Institute

10:50 am   **A Conditional Test for Finding the Variants that Explain the Evidence for Association—**❖ Baoguan Ke, The University of Chicago

11:05 am   **Improved Association Analyses of Disease Subtypes in Case-Parent Trio Studies—**❖ Glen Satten, Centers for Disease Control and Prevention; Michael Epstein, Emory University; Irwin Waldman, Emory University

11:20 am   **Analysis of DNA Gene Sequences with the Smith-Waterman Algorithm—**❖ William Owen, University of Richmond

11:35 am   **A New Approach To Performing Segregation Analysis To Detect Imprinting—**❖ Sanjay Shete, M. D. Anderson Cancer Center

11:50 am   **Missing Genotypes in TDT—**❖ Gulhan Alpargu, California State University, Fullerton

12:05 pm   **Analysis of a Probe-Level Linear Mixed Model for Oligonucleotide Arrays—**❖ Alexander Cambon, University of Louisville; Caryn Thompson, University of Louisville; Brian Wattenberg, University of Louisville

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Thursday

548 — CC-610
● Step Up, Step Down Multiple Comparisons—Contributed
Biopharmaceutical Section

Chair(s): Anna Nevius, U.S. Food and Drug Administration/CVM

10:35 am **A Non-Bonferroni Step-Up Rejection Procedure—** ❖ Jianjun Li, Merck Research Laboratories

10:50 am **Gatekeeping Procedures for Dose-Finding Problems with Multiple Endpoints—**❖ Xin Wang, Northwestern University

11:05 am **Comparison of Two Step-Down Linear Trend Tests—**❖ Kaifeng Lu, Merck & Co., Inc.

11:20 am **A New Gatekeeping Strategy for Hierarchical-Structured Hypotheses in Clinical Trials—** ❖ Junyuan Wang, The Medicines Company; Yan Zheng, University of Minnesota; Guanghan Liu, Merck Research Laboratories

11:35 am **Hochberg's Step-up Method: Cutting Corners off Holm's Step-Down Method—**❖ Yifan Huang, H. Lee Moffitt Cancer Center & Research Institute; Jason Hsu, The Ohio State University

11:50 am **Testing the Assumption in Several Amalagamation-Based Tests for Dose Response—** ❖ Arthur Roth, Pfizer Inc.

12:05 pm **Exploring Dose Response in Flexible-Dose Clinical Trials Using Marginal Structural Models: a Clinical Trial Example—**❖ Ilya Lipkovich, Eli Lilly and Company; Craig Mallinckrodt, Eli Lilly and Company; Douglas Faries, Eli Lilly and Company

549 — CC-308
Better Statistical Intervals with Applications—Contributed
Section on Physical and Engineering Sciences

Chair(s): Kevin Coakley, National Institute of Standards and Technology

10:35 am **Adjusting Likelihood Ratio Confidence Intervals for Parameters Near Boundaries Applied to the Binomial—**❖ Sundar Dorai-Raj, PDF Solutions, Inc.; Spencer Graves, PDF Solutions, Inc.

10:50 am **Parametric 95%–95% Upper Tolerance Limits for Left-Censored Lognormal Data—**❖ Charles Davis, EnviroStat

11:05 am **Estimating the Variance of the Graybill-Deal Estimator of a Common Mean—**❖ Nien Fan Zhang, National Institute of Standards and Technology

11:20 am **Revisiting Beal's Confidence Intervals for the Difference of Two Binomial Proportions—**❖ Joshua M. Tebbs, University of South Carolina; Scott Roths, Penn State

11:35 am **Normal Approximations for Computing Confidence Intervals for Log-Location-Scale Distribution Probabilities—**❖ Yili Hong, Iowa State University; William Q. Meeker, Jr., Iowa State University; Luis A. Escobar, Louisiana State University

11:50 am **Simulation Results To Assess Upper Tolerance Interval Methodology That Adjusts for Multiple Nuisance Uncertainties—**Greg Piepel, Battelle-PNNL; ❖ Scott Cooley, Battelle; Matthew Paul, Western Washington University

12:05 pm **Floor Discussion**

550 — CC-211
● ✪ Anxiety, Ambiguity, and Multiculturalism in Statistical Education—Contributed
Section on Statistical Education

Chair(s): David Swanson, University of Mississippi

10:35 am **Ambiguity Intolerance: an Impediment to Inferential Reasoning?—**❖ Robert Carver, Stonehill College

10:50 am **Stochastics Learning Environment: Can a Professor Identify and Displace Student Statistical Anxiety?—**❖ Daniel Edelman, Illinois Institute of Technology

11:05 am **Investigating Communication within a Multitiered Instructional Team—**❖ Marian Frazier, The Ohio State University; Jackie Miller, The Ohio State University

11:20 am **Can You Explain That in Plain English? Making Statistics Group Projects Work in a Multicultural Setting—**❖ Michelle R. Sisto, International University of Monaco

11:35 am **Balancing Cultural Differences in Teaching Statistics—**❖ Huizhen Guo, Xavier University

11:50 am **A Window on Statistical Education at the University Of Lagos, Lagos, Nigeria—**❖ Raymond Okafor, University of Lagos

12:05 pm **Floor Discussion**

551 — CC-601
Classification—Contributed

GENERAL PROGRAM SCHEDULE

✪ Themed Session ● Applied Session ❖ Presenter **CC**-Washington State Convention & Trade Center **H**-Grand Hyatt Seattle **S**-Sheraton Seattle Hotel & Towers

Thursday

Section on Statistical Computing

Chair(s): Samuel Buttrey, Naval Postgraduate School

10:35 am **Evidence Contrary to the Statistical View of Boosting**—❖ David Mease, San Jose State University

10:50 am **Adaptive Learning Rate in Stochastic Boosting**—❖ Mark Culp, University of Michigan; George Michailidis, University of Michigan; Kjell Johnson, Pfizer Inc.

11:05 am **Additive Regression Trees and Smoothing Splines - Predictive Modeling and Inference in Hybrid Learning.** —❖ Bin Li, The Ohio State University; Prem K. Goel, The Ohio State University

11:20 am **Use of Projection Pursuit in Classification**—❖ Li Li, George Mason University; James Gentle, George Mason University

11:35 am **Tuned and Guided Adaptive Regression by Mixing**—❖ Panayotis Giannakouros, University of Missouri-Kansas City; Lihua Chen, The University of Toledo

11:50 am **Floor Discussion**

552 CC-620
● **Rank-Based Statistical Methods—Contributed**

Section on Nonparametric Statistics

Chair(s): Xiaobin Yuan, St. Jude Children's Research Hospital

10:35 am **One-Sample and Multisample Tests for Repeated Measurement**—❖ Chien-Hua Wu, Chung-Yuan Christian University; Shu-Mei Wan, Lunghwa University of Science and Technology; Hon-Ron Lin, Chung-Yuan Christian University

10:50 am **Test-Based Classification Rule: a Linkage between Classification and Statistical Testing**—❖ Shu-Min Liao, Penn State; Michael G. Akritas, Penn State

11:05 am **Bayesian Hypothesis Testing Using Nonparametric Statistics**—❖ Ying Yuan, M. D. Anderson Cancer Center; Valen Johnson, M. D. Anderson Cancer Center

11:20 am **Asymptotic Efficiency of the Majority Rule Relative to Rank-Sum Method for Selecting Best Population**—❖ Samuel Wu, University of Florida; David Annis, Naval Postgraduate School

11:35 am **Nonparametric Methods in Multivariate Factorial Designs**—❖ Arne Bathke, University of Kentucky; Solomon W. Harrar, South Dakota State University

11:50 am **Sequential monitoring of randomization tests: theory and calculation discussion**—❖ Yanqiong Zhang, Merck & Co., Inc.; William Rosenberger, George Mason University

12:05 pm **On the Relationship between Spearman's Rho and Kendall's Tau for Extreme Order Statistics**—❖ Yung-Pin Chen, Lewis & Clark College