

## **2004 WNAR/IMS Program Schedule**

### **Sunday, June 27<sup>th</sup> 8:30-5:00**

Short Course Room: Lobo A and B

Hierarchical Modeling and Analysis of Spatial Data

**Instructor:** Bradley P. Carlin, University of Minnesota

### **Sunday, June 27<sup>th</sup> 3:45-5:00**

WNAR Regional Committee Meeting Room: Cherry Silver

### **Sunday, June 27<sup>th</sup> 6:30-**

Mixer and On-Site Registration Room: Ballroom C

### **Monday, June 28<sup>th</sup> 8:10-8:25**

Opening Remarks Room: Fiesta A and B

### **Monday, June 28<sup>th</sup> 8:00-4:00**

Registration, Information and Vendors Room: Santa Ana A and B

### **Monday, June 28<sup>th</sup> 8:30-10:15**

#### **I1 Invited Paper Session** Room: Lobo A

*Functional Data Analysis (IMS)*

**Organizer and Chair:** Gareth James, University of Southern California

#### **Speakers:**

**Hans Mueller**, University of California, Davis, "Functional Response Models"

**Naisyin Wang**, Department of Statistics, Texas A&M, "Accounting for Response Correlation in Varying Coefficient Models"

**Gareth James**, University of Southern California, "Curve Synchronization with Application to Functional Regression Models"

#### **C1 Contributed Paper Session** Room: Lobo B

*Issues in Binary and Survival Data Analysis*

**Session Chair:** David Higdon, Los Alamos National Labs

#### **Speakers:**

**Stephen Shiboski**, University of California San Francisco, "Issues in the analysis of event times arising in case-control samples"

**Susanne May**, University of California San Diego, "Hosmer-Lemeshow type goodness-of-fit tests for the Cox proportional hazards model"

**Reena Deutsch**, University of California San Diego, "Testing significance of a cluster of multivariate items with binary outcomes"

**Holly Janes, Margaret Pepe**, University of Washington, Seattle, "Adjusting for Covariate Effects in a Biomarker Study Using the Subject-Specific Threshold ROC Curve"

**Coen Bernaards**, AMC Cancer Research Center, "Robustness of a multivariate normal approximation for imputation of incomplete binary data"

**SP1. Student Paper Session** Room: Fiesta A and B*Inference***Session Chair:** C. Shane Reese**Speakers:**

**Sebastien J-P.A. Haneuse, Jonathon C. Wakefield**, University of Washington, "Ecological studies using supplemental case-control data"

**Chuan Zhou, Jon Wakefield**, University of Washington, "A Bayesian hierarchical mixture model for curve clustering"

**Mulugeta Gebregziabher, Bryan Langholz**, University of Southern California, " Bias and efficiency comparisons of missing covariate data methods in individually matched case-control studies "

**Jin Huang, Dejian Lai, Jan M. Risser, Asha S. Kapadia**, University of Texas Health Science Center, "Statistical Properties of Generalized Gini Coefficient with Application to Health Inequality Measurement"

**Hao Liu**, University of Washington, "On Source Apportionment and Health Effects Model"

**Monday, June 28<sup>th</sup> 10:00-10:30**

Refreshments Room: Santa Ana A and B

**Monday, June 28<sup>th</sup> 10:30-12:15****I2 Invited Paper Session** Room: Lobo A*Interval Censored Data: Theory and Methods (IMS)***Organizer:** Michael Kosorok, University of Wisconsin**Session Chair:** Shuangge Ma, University of Wisconsin**Speakers:**

**Nick Jewell**, University of California, Berkeley, "Nonparametric Estimation from Bivariate and Case-Control Current Status Data"

**Mouli Banerjee**, University of Michigan, Ann Arbor, "Likelihood based inference for interval censored data: some recent developments and future directions"

**Shuangge Ma**, University of Wisconsin, Madison, "Penalized Log-Likelihood Estimation for Partly Linear Transformation Models with Current Status Data"

**SP2. Student Paper Session** Room: Fiesta A and B*Analysis of Microarray Data***Session Chair:** C. Shane Reese**Speakers:**

**Raphael Gottardo, Adrian E. Raftery, Ka Yee Yeung, Roger E. Bumgarner**, University of Washington, "Robust estimation of cDNA microarray intensities with replicates"

**Jim Estipona, Luis Tari, Xin Zhang**, Arizona State University, "Sporadic breast cancer gene expression signature"

**Catherine Crespi, William G. Cumberland, Sally Blower**, University of California, Los Angeles, "A queueing model for chronic, recurrent conditions under panel observations"

**Jong Soo Lee**, Rice University, "Application of robust smoothing to fluorescence spectroscopy in cervical cancer detection"

**W1 Invited Paper Session** Room: Lobo B*Mortality Displacement: Inference from Air Pollution Time Series. (WNAR)***Organizer and Chair:** Paul Switzer, Stanford University**Speakers:**

**Steven Roberts**, Australian National University, "Properties of Mortality Displacement Estimates in the Context of Frail Population Models"

**Leah Welty**, Johns Hopkins University, "Flexible distributed lag models for quantifying the effects of weather and air pollution on daily mortality"

**Chris Murray**, University of Houston, "Statistical modeling of mortality displacement"

## Monday, June 28<sup>th</sup> 12:30-1:45

New researchers luncheon (Ticket event) Room: Acoma A and B  
Regional Advisory Board Lunch Room: Cherry Silver

## Monday, June 28<sup>th</sup> 1:45-3:30

### WI1 Invited Paper Session Room: Lobo A

*Applications of Multivariate Survival Analysis in Genetic Epidemiology* (IMS/WNAR)

**Organizer and Chair:** David Glidden, University of California, San Francisco

**Speakers:**

**Hongzhe Li**, University of California, Davis, "The additive genetics gamma frailty model: estimation and inferences"

**Li Hsu**, University of Washington, Seattle, "On estimation of marginal hazards functions from the case-control family studies"

**David Glidden**, University of California, San Francisco, "General copula-checking strategies: applications to family studies"

**Jason Fine**, University of Wisconsin, Madison, " Functional Association Models for Multivariate Survival Processes"

### SP3. Student Paper Session Room: Fiesta A and B

*Genetic Analysis*

**Session Chair:** C. Shane Reese

**Speakers:**

**Yinshan Zhao, Harry Joe**, University of British Columbia, "Composite likelihood estimation in familial data analysis"

**A. B. Hepler**, North Carolina State University, "Using Bayesian networks for paternity calculations: Adding an evolutionary perspective"

**William Stewart**, University of Washington, "Estimating genetic maps from marker data collected in multipoint linkage studies".

**James H. Degnan, Laura A. Salter**, University of New Mexico, "Gene tree distributions under the coalescent process"

**Zailong Wang**, University of California, Davis, "A First Analysis of Prim"

### W2 Invited Paper Session Room: Lobo B

*Inference using computer simulation code* (WNAR)

**Organizer and Chair:** Dave Higdon, Los Alamos National Labs

**Speakers:**

**Tilmann Gneiting**, University of Washington, "Calibrated probabilistic weather forecasting using ensemble model output statistics (EMOS) and minimum CRPS estimation"

**Dorin Drignei**, National Center for Atmospheric Research, "Statistical Analysis of Multivariate Computer Experiments with Large Temporal Dimension"

**Bruno Sanso**, University of California Santa Cruz, "Statistical Inference for a Charged Particle Simulator"

**Rick Routledge**, Simon Fraser University, "Hydrodynamic modelling of a British Columbia fjord: linking local climate change and sockeye salmon declines"

## **Monday, June 28<sup>th</sup> 3:15-3:45**

Refreshments Room: Santa Ana A and B

## **Monday, June 28<sup>th</sup> 3:45-5:00**

WNAR Presidential Invited Address Room: Ballroom A

**Speaker:** Don Berry, MD Anderson Cancer Center, "Why Bayes?"

## **Tuesday, June 29<sup>th</sup> 8:00-4:00**

Registration, Information and Vendors Room: Santa Ana A and B

## **Tuesday, June 29<sup>th</sup> 8:30-10:15**

### **W3 Invited Paper Session** Room: Lobo A

*Genetics: Phylogenetic Inference* (WNAR)

**Organizer and Chair:** Laura Salter, University of New Mexico

**Speakers:**

**Dennis Pearl**, The Ohio State University, "Diagnosing and Reporting an MCMC Phylogenetic Analysis"

**Li-Jung Liang**, University of California, Los Angeles, "Constructing Hierarchical Priors with Application to Bayesian Phylogenetic Analyses"

**Steve Poe**, University of New Mexico, "Birds in a Bush: Power and polytomies in phylogenetic inference."

### **C2. Contributed Paper Session** Room: Lobo B

*Spatiotemporal Data Analysis*

**Session Chair:** Rachel Altman, University of Washington, Seattle

**Speakers:**

**Geert Wenes**, The National Center for Genome Resources (NCGR), "Process Detection in Large, Noisy, and Incomplete Data: Stochastic Hybrid Dynamical Systems"

**Margaret Short**, Los Alamos National Labs, "Process convolution approach to reconstruction of binary fields"

**Vera Bulaevskaya**, Carnegie Mellon University, "A maximum likelihood approach to assessing the neuron/muscle relationship"

**Rachel Altman**, University of Washington, Seattle, "Parameter-driven models for time series of count data"

**Christiana Drake**, University of California Davis, "Missing socio-economic status in the California cancer registry: How to adjust mortality rates."

### **SP4. Student Paper Session** Room: Fiesta A and B

*Issues in Survival Analysis*

**Session Chair:** C. Shane Reese

**Speakers:**

- Shuangge Ma, Michael R. Kosorok, Jian Huang**, University of Wisconsin, "Robust semiparametric cDNA microarray normalization and significance analysis"
- Lihong Qi, C.Y. Wang, Ross L. Prentice**, Fred Hutchinson Cancer Research Center, "Weighted estimators for proportional hazards regression with missing covariates"
- Conway Gee**, University of Southern California, "Cure rate estimation in the analysis of survival data with competing risks"
- Pamela A. Shaw, Ruth Etzioni, Steven B. Zeliadt, Angela Mariotto, Kent Karnofski, David F Penson, Noel S. Weiss, Eric J. Feuer**, University of Washington, "An ecologic study of PSA screening and prostate cancer mortality in nine geographic areas of the US"
- Phil Dinh, Xiao Hua Zhou**, University of Washington, "Interval estimation for the difference in means of two skewed populations"

## Tuesday, June 29<sup>th</sup> 10:00-10:30

Refreshments Room: Santa Ana A and B

## Tuesday, June 29<sup>th</sup> 10:30-12:15

### W4 Invited Paper Session Room: Lobo A

*Homeland Security (WNAR)*

**Organizer and Chair:** Sarah Michalak, Los Alamos National Labs

**Speakers:**

- David Banks**, Duke University, "Game Theory and Risk Analysis in Counterterrorism"
- Mike Stoto**, RAND Corporation, "Syndromic Surveillance: Is It Worth the Effort?"
- Sam Bozette**, RAND Corporation/University of California, San Diego, To be Announced
- Larry Ticknor**, Los Alamos National Labs, "Analysis of Amplified Fragment Length Polymorphisms Genomic Data for Identification of Clinical and Environmental Isolates"

### I3 Invited Paper Session Room: Lobo B

*Mixture Analysis: Theory and Applications (IMS)*

**Organizer:** Guenther Walther, Stanford University

**Session Chair:** Jonathan Taylor, Stanford University

**Speakers:**

- Ramani S. Pilla**, Case Western Reserve University, "Testing for the Order of Mixture Models via Perturbation Theory"
- Jia Li**, Penn State University, "Two-way Poisson Mixture Models for Simultaneous Document Classification and Word Clustering"
- Guenther Walther**, Stanford University, "Analyzing Flow Cytometry Mixture Data"

### C3. Contributed Paper Session Room: Fiesta A and B

*Bayesian Applications*

**Session Chair:** Raquel Prado, University of California, Santa Cruz

**Speakers:**

- Raquel Prado**, University of California, Santa Cruz, "Detecting positive selection in DNA sequences: a hierarchical model-based approach"
- Paramjit Gill**, Okanagan College, "Bayesian analysis of dyadic data"
- Lurdes Inoue**, University of Washington, Seattle, "Combining longitudinal studies of PSA"
- Tim Hanson**, University of New Mexico, "Bayesian Semiparametric Survival Analysis with Time Dependent Covariates"

## **Tuesday June 29<sup>th</sup> 12:30-1:45**

WNAR Regional Committee Luncheon Room: Acoma A and B

### **Tuesday, June 29<sup>th</sup> 1:45-3:30**

#### **I4 Invited Paper Session** Room: Lobo A

*Markov Chain Monte Carlo Methodology* (IMS)

**Organizer and Chair:** Jim Hobert, University of Florida

**Speakers:**

**Xiao-Li Meng**, Harvard University, "A Mutant Gibbs Sampler: Incompatibility, Instability, and Nonidentifiability Redeemed"

**Jim Hobert**, University of Florida, "A Mixture Representation of the Stationary Distribution"

**Galin Jones**, University of Minnesota, "Output Analysis for Markov Chain Monte Carlo"

#### **WI2 Invited Paper Session** Room: Lobo B

*Social Network Analysis* (IMS/WNAR)

**Organizer and Chair:** Peter Hoff, University of Washington

**Speakers:**

**Steven K. Thompson**, Penn State University, "Active Set Adaptive Sampling in Networks "

**Mark Handcock**, University of Washington, Seattle, "Assessing Degeneracy in Statistical Models of Social Networks "

**James Holland Jones**, Stanford University, "Likelihood-Based Model Selection for Sexual Partnership Distributions "

**Discussant:**

**Peter Hoff**, University of Washington, Seattle

#### **C4. Contributed Paper Session** Room: Fiesta A and B

##### **Longitudinal and Regression Models**

**Session Chair:** D. Keith Williams, University of Arkansas for Medical Sciences

**Speakers:**

**Jonathan Schildcrout**, University of Washington, Seattle, "Outcome dependent sampling with longitudinal, binary response data"

**Rema Raman**, University of California San Diego, "A mixed-effects regression model for multi-level ordinal data that allows heterogeneous variances"

**D. Keith Williams**, University of Arkansas for Medical Sciences, "A performance comparison of nonparametric versus generalized linear models in longitudinal studies"

**Loki Natarajan**, University of California San Diego, "Measurement error models: an application to dietary data"

**Oksana Shcherbak**, Salford Systems, "An alternative methodology to linear regression and neural networks"

### **Tuesday, June 29<sup>th</sup> 3:15-3:45**

Refreshments Room: Santa Ana A and B

### **Tuesday June 29<sup>th</sup> 3:45-5:00**

WNAR General Business Meeting Room: Ballroom A

## **Tuesday June 29<sup>th</sup> 6:30-**

Banquet (Ticket event)  
Tucanos Brazilian Grill  
110 Central Ave. SW

## **Wednesday, June 30<sup>th</sup> 8:00-12:00**

Information and Vendors Room: Santa Ana A and B

## **Wednesday, June 30<sup>th</sup> 8:30-10:15**

### **W5 Invited Paper Session** Room: Lobo A

*Statistical Learning and Data Mining* (WNAR)

**Organizer and Chair:** Nando deFreitas, University of British Columbia

**Speakers:**

**Paul Gustafson**, University of British Columbia, "Bayesian model selection for semi-supervised and unsupervised learning"

**Dustin Lang**, University of British Columbia, "Fast inference in probabilistic graphical models"

**Firas Hamze**, University of British Columbia, "From Fields to Trees"

### **C5. Contributed Paper Session** Room: Lobo B

*Exploratory Data Analysis / Data Mining*

**Session Chair:** Christiana Drake, University of California, Davis

**Speakers:**

**Shenghan Lai**, Johns Hopkins University, "Examples in epidemiology using advanced data mining techniques"

**Mikhail Golovnya**, Salford Systems, "Advanced data mining techniques and how to build and interpret TreeNet/MART and random forest models"

**Chuan Zhou**, University of Washington, Seattle, "A Bayesian hierarchical mixture model for curve clustering"

### **C6. Contributed Paper Session** Room: Fiesta A and B

*Topics in Mathematical Statistics and Statistical Computing*

**Session Chair:** Sam Efromovich, University of New Mexico

**Speakers:**

**Sam Efromovich**, University of New Mexico, "On blockwise wavelet estimation"

**Hari Mukerjee**, Wichita State University, "Statistical inferences for a decreasing mean residual life distribution"

**Claudia Schmegner**, Depaul University, "Principles of optimal sequential planning"

**Jeffrey Pontius**, Kansas State University, "Conditioning plots based on experimental designs"

**Ahmad Reza Soltani**, Kuwait University, "On threshold moving averages with prescribed on target significance levels"

## **Wednesday, June 30th 10:00-10:30**

Refreshments Room: Santa Ana A and B

## **Wednesday, June 30<sup>th</sup> 10:30-12:15**

**I5 Invited Paper Session** Room: Lobo A

*Model Selection (IMS)*

**Organizer:** Mark van der Laan, University of California, Berkeley

**Session Chair:** Jason Fine, University of Wisconsin

**Speakers:**

**Peter Bickel**, University of California, Berkeley, "Cross validation for constructing adaptive minmax procedures"

**Jonathon Taylor**, Stanford University , "Connections between stagewise algorithms and the LASSO"

**Sunduz Keles** , University of California, Berkeley, " Asymptotic optimality of cross-validation in density estimator selection and in model selection with right censored outcomes "

**C7. Contributed Paper Session** Room: Lobo B

*Ecological/Population Dynamics*

**Session Chair:** Christopher Williams, University of Idaho

**Speakers:**

**Christopher Williams**, University of Idaho, "Estimation of fish disease prevalence from imperfect diagnostic tests"

**Grace Chiu**, University of Washington, Seattle, "Why SHIPSL?"

**Ling Xu**, University of New Mexico, "Detecting multimodality in ecological data"

**Wayne W. Chen**, Minnesota State University Moorhead, "Parasite population dynamics in Malaria"