SCIENTIFIC PROGRAM

The Third Erich L. Lehmann Symposium
May 16 - 19, 2007
Rice University

Symposium Chair and Organizer

Javier Rojo
Statistics Department, MS-138
Rice University
6100 Main Street
Houston, TX 77005

Plenary Speakers

Erich L. Lehmann
University of California, Berkeley

Some history of optimality

Lawrence D. Brown
The Wharton School
University of Pennsylvania

A unified view of regression, shrinkage, empirical Bayes, hierarchical Bayes, and random effects

James O. Berger
Duke University

Some recent developments in Bayesian model selection

Rodrigo Bañuelos
Purdue University

Isoperimetric bounds for Lévy processes

Peter J. Bickel
University of California, Berkeley

The collapse of particle filters

Stephen M. Stigler
University of Chicago

Karl Pearson and testing statistical hypotheses

Peter J. Huber

On the non-optimality of optimal procedures

Willem R. van Zwet
University of Leiden

Statistics and the law: the case of the nonchalant nurse

Invited Session Scientific Committee

Javier Rojo, Chair	**Rice University**
Jane Ling Wang	**University of California, Davis**
Rudy Guerra	**Rice University**
Juliet P. Shaffer	**University of California, Berkeley**
Wei-Yin Loh	**University of Wisconsin, Madison**
Peter J. Bickel	**University of California, Berkeley**
Kjell Doskum	**University of Wisconsin, Madison**
Yongzhao Shao	**New York University**
Demissie Alemayehu	**Pfizer and Columbia University**
James O. Berger	**Duke University and SAMSI**

Invited Sessions

Young Investigators

Javier Rojo, Organizer
Yolanda Muñoz Maldonado, Chair

Brisa N. Sánchez University of Michigan	*Residual-based diagnostics for structural equation models*
Yolanda Muñoz Maldonado UT Health Sc Center Houston	*Penalized least squares and frequentist and Bayesian mixed-effects models*
Farinaz Koushanfar Rice University	*How challenging is the data set?*

Statistical Problems in the Analysis of Genomic and Magnetic Resonance Imaging Data

Wei-Yin Loh, Chair

Sunduz Keles University of Wisconsin, Madison	*Statistical issues arising in the study of transcription regulation*
Shaw-Hwa Lo Columbia University	*A method toward mapping of common traits*
Young K. Truong UNC, Chapel Hill	*Spatio-temporal modeling for fMRI data*

Optimality in Bioinformatics: Theory vs Practice

Rudy Guerra, Chair

David Dahl Texas A&M University	*Simultaneous inference for multiple testing and clustering via Dirichlet process mixture models*
Chad Shaw Baylor College of Medicine	*Using annotations in the analysis of genome scale data*
Rudy Guerra Rice University	*Incorporating biological knowledge in gene expression analysis*

Regularized Methods of Classification and Estimation of Nonparametric Regression and Covariance Matrices When Data is High Dimensional

Peter J. Bickel, Chair

Wei-Yin Loh University of Wisconsin	*Regression and variable selection in large p, small n problems*
Debashis Paul University of California, Davis	*Principal component analysis for structured high-dimensional data*
Ya'acov Ritov Hebrew University	*Consistent learning methods are approximately local*

Probability, Levy Process, and Applications

Javier Rojo, Organizer
Rodrigo Bañuelos, Chair

Dennis Cox   *Multiscale models for chemical reaction processes*
Rice University

Davar Khoshnevisan   *On some applications of stable processes*
University of Utah

José Enrique Figueroa   *Non-parametric estimation for some models driven*
Purdue University   *by Levy processes*

Multiplicity: Developments and Current Issues

Juliet P. Shaffer, Chair

Charles Lewis   *Bayesian decision theory for multiple*
Fordham University   *comparisons*

Helmut Finner   *Testing for equivalence in k sample models*
Deutsches Diabetes-Zentrum

Ajit C. Tamhane   *A mixture model approach to estimating the*
Northwestern University   *number of true null hypotheses and adaptive*
                                             control of FDR

Recent Advances in Non- and Semi-parametric Modeling

Jane-Ling Wang, Chair

Kjell Doksum   *Semi-parametric models based on transformations*
University of Wisconsin   *and extremes*

Xihong Lin   *Statistical challenges in analyzing mass*
Harvard University   *spectrometry proteomic data*

Naisyin Wang   *Analysis of hierarchical biomedical data using*
Texas A&M University   *semiparametric models*

Statistical Inference for Population Substructures via Clustering, Mixture Models and Other Approaches

Demissie Alemayehu, **Yongzhao Shao**, Organizers
Yongzhao Shao, Chair

Bruce G. Lindsay   *Modal inference: halfway between clustering*
Pennsylvania State University   *and mixture analyses*

Yuewu Xu   *A limit theory for likelihood ratio test under*
Fordham University   *unidentifiability for general dependent processes*

Yongzhao Shao   *Recent developments in likelihood theory with*
New York University   *applications to testing homogeneity in finite*
                                             mixture models and other models

Semiparametric Models, Longitudinal Survival Data, False Discovery Rate, and Brain fMRI

Kjell Doksum, Chair

Jane-Ling Wang University of California at Davis	*Semi-parametric analysis of longitudinal data truncated by event-time*
Kam-Wah Tsui and Shijie Tang University of Wisconsin, Madison	*Simultaneous testing of multiple hypotheses using generalized p-values*
Chunming Zhang University of Wisconsin, Madison	*Semi-parametric detection of significant activation for brain fMRI*

Multiple Testing and Subgroup Analysis

James O. Berger, Chair

Juliet P. Shaffer University of California	*Multiplicity and subgroup analysis*
Peter Mueller U.T. M.D. Anderson Cancer Center	*The optimal discovery procedure and Bayesian decision rules*
M. J. Bayarri Valencia, Duke U. and SAMSI	*Bayesian and frequentist handling of multiple U. testing*

CONTRIBUTED PAPERS

Nancy L. Glenn, University of South Carolina, Columbia: *The GEM Algorithm*

Richard C. Ott, Mesa State College: *On the Operating Characteristics of Some Non-parametric Methodologies for the Classification of Distributions by Tail Behavior*

Xiaohui Wang, University of Texas-Pan American: *Classifications of Proteomic Mass Spectra and Other Curve Data*

Xiaohu Li, School of Mathematics and Statistics, Lanzhou University, People's Republic of China: *Stochastic Comparison on Conditional Order Statistics - Some New Results*

Robert Mnatsakanov, West Virginia University, *Some Asymptotic Properties of Varying Kernel Density Estimator*

Monnie McGee, Southern Methodist University, *A Distribution Free Summarization Method for Affymetrix GeneChip$^{\circledR}$ Arrays*

Changxiang Rui, University of Arkansas, *Point and Block Prediction in Log-Gaussian Random Fields: The Non-constant Mean Case*

Qiang Zhao, Texas State University, San Marcos, *Survival Analysis of Microarray Gene Expression Data Using Correlation Principal Component Regression*

Suhasini Subba Rao, Texas A&M University, *Normalised Least-Squares Estimation in Time-Varying arch Models*

Santanu Chakraborty, UT Pan-American, *Parametric Inference on Zero-Inflated Poisson Distribution and Its Variants*

Hongxiao Zhu, Rice University, *A Functional Generalized Linear Model with Application to Cervical Pre-cancer Diagnosis Using Fluorescence Spectroscopy*

Xiaowei Wu, Rice University, *Some Estimation and Hypothesis Testing Problems in Fluctuation Analysis*

John Fresen, University of Missouri - Columbia, *On the Definition of Weak Convergence of a Sequence of Random Elements*

Victor De Oliveira, UT San Antonio, *Objective Bayesian Analysis of Spatial Data with Measurement Error*

Pang Du, Virginia Tech, *Smoothing Spline Frailty Model*

Graciela Gonzalez, CIMAT, *Some Important Issues in Inference under Certain Types of Singularities*

The Third Erich L Lehmann Symposium
Javier Rojo, Organizer/Chair
Invited Program – All talks are in McMurtry Auditorium Duncan Hall 1055

Time	Wednesday May 16	Thursday May 17	Friday May 18	Saturday May 19
7:30	Breakfast 7:30 – 8:45 Duncan Hall	Breakfast Duncan Hall	Breakfast Duncan Hall	Breakfast Duncan Hall
8:45 9:00	Opening Remarks	Classification, nonparametric regression: high dimensional data — Wei-Yin Loh; Debashis Paul; Ya'acov Ritov	Recent Advances in Non and Semiparametric Modeling — Kjell Doksum; Xihong Lin; Naisyin Wang	Multiple Testing and Subgroup analysis — Juliet P Shaffer; Peter Mueller; Susie Bayarri
	Plenary Speaker **Erich L Lehmann**			
10:00	Young Investigators — Brisa N. Sánchez; Yolanda Muñoz Maldonado; Farinaz Koushanfar			
10:30 – 10:50		Coffee Break 10:30 – 10:50	Coffee Break	Coffee Break
		Plenary Speaker 10:50 **Rodrigo Bañuelos**	**Plenary Speaker 10:50** **Lawrence D Brown**	**Plenary Speaker 10:50** **Peter J Huber**
				Plenary Speaker 11:50 **Willem van Zwet**
	Lunch 12:00 – 1:15 Duncan Hall	Lunch 11:50 – 1:15 Duncan Hall	Lunch 11:50 – 1:15 Duncan Hall	**CLOSING LUNCHEON DUNCAN HALL** **1:00 – 2:30**
1:15 – 3:00	Genomics and magnetic resonance — Sunduz Keles; Shaw-Hwa Lo; Young K. Truong	Probability, Lévy Processes and Applications — Dennis D. Cox; Davar Khoshnevisan; Jose Enrique Figueroa	Inference for Substructures: Clustering, Mixtures,.... — Bruce G. Lindsay; Yuewu Xu; Yongzhao Shao	
3:00 – 3:20	Coffee Break	Coffee Break	Coffee Break	
3:20 4:20	**Plenary Speaker** **Peter J Bickel**	**Plenary Speaker** **Stephen M Stigler**	**Plenary Speaker** **James O Berger**	
4:20 – 6:05	Optimality in Bioinformatics: Theory vs Practice — David B. Dahl; Chad Shaw; Rudy Guerra	Multiplicity: Developments and current issues — Charles Lewis; Helmut Finner; Ajit C. Tamhane	Semiparametrics, longitudinal, survival, false discovery, fMRI — Jane-Ling Wang; Kam-Wah Tsui; Chunming Zhang	
	CONTRIBUTED TALKS 6:05 – 7:05	Banquet Ballroom Ley Student Cr; Cash Bar/Music 6:45 – 7:30; Dinner/Music 7:30 – 10:00	CONTRIBUTED TALKS 6:05 – 7:05	