

Abstracts Of Invited Session

Session 1 8A. Recent Advances in Computational Neuroscience

- ✓ Bayesian Inference for the Directional Brain Network Modeled by High-dimensional Damped Harmonic Oscillators using ECo [00159.pdf](#)
- ✓ Point process adaptive filters and the analysis of neural spiking dynamics [00265.PDF](#)
- ✓ Fiber orientation distribution estimation by spherical needlets [00311.PDF](#)
- ✓ Inference for integrate-and-fire neuron models [00425.pdf](#)

Session 2 7A. Statistics Innovations for Imaging Studies

- ✓ Large covariance/precision matrix estimation for temporal data [00313.pdf](#)
- ✓ Low Rank Graphic Regression for Mapping Human Connectome Data [00629.pdf](#)
- ✓ Exploratory Analysis and Connectivity Models for High Dimensional Time Series [00674.pdf](#)
- ✓ Model-Based Correction for Artifacts induced by mismatched attenuation correction in a PET/CT Scanner [00809.pdf](#)

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- ✓ Covariate Adjusted Spearman's Rank Correlation with Probability-Scale Residuals [00335.pdf](#)
- ✓ A goodness-of-fit test for the ordered stereotype model [00320.pdf](#)
- ✓ Assessing the Power of Independent Samples t, Mann-Whitney and Van der Warden Tests for Likert Type Data [00754.pdf](#)

Session 4 10A. Emerging Statistical Power in Integrating Big and Complex Neuroimaging Data

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- ✓ Spatial Bayesian Latent Factor Regression Modeling of Multiple Sclerosis Lesion Data [00379.PDF](#)

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- ✓ Leveraging Algorithms for Logistic Regression with Massive Data [00967.pdf](#)
- ✓ A mixed-effects estimating equation model for nonignorable missing longitudinal data with refreshment sampling [00160.pdf](#)
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- ✓ Semiparametric Transformation Models with Multi-Level Random Effects for Family Survival Data [00923.pdf](#)
- ✓ Semiparametric Regression Analysis of Interval-Censored Competing Risks Data [00114.PDF](#)
- ✓ Constructing Disease Onset Signatures Using High-Dimensional Network-Structured Biomarkers [00113.pdf](#)

Session 7 9B. Challenging Statistical Issues in High-dimensional Inference

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- ✓ Testing the distribution specification in multiparameter local likelihood models [00608.pdf](#)
- ✓ Minimax rates for sparse multi-kernel classification via a new ℓ_1 -based SVM [00890.pdf](#)
- ✓ Two-Sample Tests for High-Dimensional Linear Regression with an Application to Detecting Interactions [00213.PDF](#)

Session 8 10B. ICSA-Biometrics Section Sponsored Invited Session: "Recent Progress in Personalized Medicine"

- ✓ Tree-based Censoring Imputation for Personalized Medicine [00980.pdf](#)
- ✓ Outcome-dependent Logistic Learning for Dynamic Treatment Regimes [00766.pdf](#)
- ✓ Estimating Optimal Dynamic Treatment Regimes with Shared Decision Rules [00221.PDF](#)

Session 9 8B. Some Recent Research in Statistical Process Control

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- ✓ Profile Monitoring Based on Proportional Odds Models [00147.pdf](#)
- ✓ Nonparametric Dynamic Screening System for Monitoring Correlated Longitudinal Data [00357.pdf](#)
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- ✓ Detection of Adverse Drug Reactions from Electronic Health Record Data [00888.PDF](#)
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- ✓ Statistical Approaches to Estimating the Number of Signal Sources in Magnetoencephalography [00478.pdf](#)
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- ✓ Modeling Seasonality and Serial Dependence of Electricity Price Curves with Warping Functional Autoregressive Dynamics [00964.pdf](#)
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- ✓ On the determinants of the 2008 financial crisis: A Bayesian approach to the selection of groups and variables [00280.PDF](#)
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- ✓ Most powerful statistics for RNA-seq and image association analysis and its application to kidney cancer study [00239.pdf](#)
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- ✓ Deep learning in multi-level causal genomic-epigenomic network analysis and its application to Alzheimer's disease studies. [00207.pdf](#)
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- ✓ A LACK-OF-FIT TEST WITH SCREENING IN SUFFICIENT DIMENSION REDUCTION FOR ULTRAHIGH DIMENSIONAL [00694.PDF](#)
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- ✓ Statistical Challenge in Analyzing Data from Observational Studies [00522.pdf](#)
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- ✓ Evaluating Utility Measurement from Recurrent Marker Processes in the Presence of Competing Terminal Events [00136.pdf](#)
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- ✓ A Time Course Inferential Framework for Gene Set Enrichment Analysis Based on Functional Elastic-net Regression [00396.PDF](#)

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- ✓ Merging Multiple Longitudinal Studies with Study-Specific Missing Covariates: A Joint Estimating Function Approach [00769.PDF](#)
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- ✓ Rotation Survival Forest for High Dimensional Censored Data [00326.PDF](#)
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- ✓ A Model-Free Method for Detecting Disease Association Signals with Multiple Genetic Variants and Covariates [00073.pdf](#)
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Session 57 5G. Lifetime Data Analysis (LIDA) Special Invited Session

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Session 58 12E. Genomics and Big data

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- ✓ Multimode data analytics in lung cancer genomics [00469.pdf](#)
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Session 59 3D. New Methods for Analyzing Spatial and Spatio-Temporal Data

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Session 62 9H. Boundary Crossing Probability for Brownian Motion and Related Processes and Their Applications

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- ✓ A Concave Pairwise Fusion Approach to Subgroup Analysis [00920.pdf](#)
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- ✓ Frailty Modelling Approaches for Semi-competing Risks Data [00909.PDF](#)
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- ✓ Some spatio-temporal modelling problems and recent advances [00180.PDF](#)
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- ✓ Estimating the predictive value of continuous markers for censored survival data using a likelihood ratio approach [00261.pdf](#)
- ✓ A Weibull multi-state model for the dependence of progression free survival and overall survival [00102.pdf](#)
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Session 69 8I. Statistical Methods for Detecting Weak and Simultaneous Signals

- ✓ A statistical framework for integrating the phylogenetic tree in the analysis of microbiome data [00611.pdf](#)
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- ✓ Some New Statistical Testing Procedures for Gene Expression Analysis [00539.pdf](#)
- ✓ Dissecting the transcriptional changes underlying somatic mutations in cancer genomes [00255.pdf](#)
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- ✓ Analysis of Field Return Data With Failed-But-Not-Reported Events [00737.pdf](#)
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- ✓ Nonparametric inference of right censored data with smoothing splines [00593.PDF](#)
- ✓ An Additive-Multiplicative Mean Residual Life Model for Right Censored Data [00098.PDF](#)

Session 73 2F. Recent Advances in the Analysis of Complex Data

- ✓ Asynchronous longitudinal data analysis [00813.pdf](#)
- ✓ Simultaneous selection for responses and predictors in multivariate regression [00852.pdf](#)
- ✓ Nonparametric Fixed Effects Model for Panel Data with Locally Stationary Regressors [00904.pdf](#)
- ✓ Network-based Feature Screening with Applications to Genome Data [00306.pdf](#)

Session 74 7G. Recent Development in Multiple Hypotheses Testing

- ✓ Insight into Gate-keeping and Graphical Approaches via Partitioning: Paths, Shortcuts, and Limitations [00267.pdf](#)
- ✓ Generalized FWER control procedures for testing multiple hypotheses [00354.pdf](#)
- ✓ An improved uniformly more powerful exact Fisher-Hayter pairwise comparisons procedure [00472.pdf](#)
- ✓ Simultaneous Confidence Intervals from Stochastic Approximation [00383.pdf](#)
- ✓ An Empirical Bayes Method for Genotyping and SNP Detection Using Multi-sample Next-generation Sequencing Data [00252.pdf](#)

Session 75 1E. Advanced Statistical Methods and Big Data

- ✓ Boolean Networks for Big Data [00323.PDF](#)
- ✓ Online Updating of Survival Analysis in the Big Data Setting [00573.pdf](#)
- ✓ The R Package thregS to Implement Threshold Regression Model in the setting of complex surveys [00214.PDF](#)
- ✓ COMMON AND DISTINCTIVE FEATURES OF SURVIVAL AND RELIABILITY. ACCELERATED VERSUS THRESHOLD REG [00262.pdf](#)

Session 76 7H. Semi/Non-parametric Method in Complicated Structure Data

- ✓ SEMIPARAMETRIC ESTIMATION OF TIME-VARYING INTERVENTION EFFECTS USING RECURRENT EVENT DATA [00431.pdf](#)
- ✓ Nonparametric Additive Instrumental Variable Estimator: A Group Shrinkage Estimation Perspective [00796.pdf](#)
- ✓ Semiparametric Inference for the Proportional Mean Residual Life Model with Right-Censored Length-Biased Data [00996.pdf](#)

Session 77 11F. Recent Advances and Challenges in Statistical Theory and Methods for High-dimensional and Ne

- ✓ Detection Thresholds for the β -Model on Sparse Graphs [00778.pdf](#)
- ✓ Community Detection in Degree-Corrected Block Models [00552.pdf](#)
- ✓ High-dimensional changepoint estimation via sparse projection [00100.PDF](#)
- ✓ Nonparametric estimation of finite mixture models [01001.pdf](#)

Session 78 10F. Recent Advances and Challenges in Statistical Methods for Big Biological and Medical Data

- ✓ Identifying cis-mediators for trans-eQTLs across many human tissues using genomic mediation analysis [00787.PDF](#)
- ✓ Fusion Learning in Data Integration [00826.PDF](#)
- ✓ Multiple Change-point Detection [00742.pdf](#)

Session 79 6H. Recent Developments in Statistical Methods for Complex Data

- ✓ Variable Clustering via G-Models of Large Covariance Matrices [00718.pdf](#)
- ✓ The Self-Multiset Sampler [00728.pdf](#)
- ✓ SSE: A Summary-Statistics-based approach to Estimating heritability, co-heritability and effect sizes in GWAS data analysis [00799.pdf](#)
- ✓ Leveraging Mixed and Incomplete Outcomes via Reduced Rank Regression [00966.PDF](#)
- ✓ Model diagnostics in reduced-rank estimation [00871.pdf](#)

Session 80 12F. Empirical Likelihood and its Applications

- ✓ Transforming the empirical likelihood towards better accuracy [00786.PDF](#)
- ✓ Semiparametric monitoring test based on clustered data [00298.PDF](#)
- ✓ Empirical likelihood inference based on estimating equations for complex surveys with data missing at random [00166.pdf](#)
- ✓ Small Area Quantile Estimation [00309.PDF](#)

Session 81 11G. Theory and Application of Mixture Models

- ✓ Sample-size calculation for tests of homogeneity [00134.PDF](#)
- ✓ Mixture-of-experts models with diverging number of parameters [00486.pdf](#)
- ✓ Testing the Capital Asset Pricing Model with Economic Regime Shifts [00296.pdf](#)
- ✓ Using differential variability to increase the power of the homogeneity test in a two-sample problem [00336.pdf](#)

Session 82 1F. Advances in Statistical Genetics and Genomics

- ✓ Whole genome association study of brain-wide imaging phenotypes: A study of the PING cohort [00517.PDF](#)
- ✓ RegODA: Univariate Regression Modeling for the Orthogonal Decomposition Analysis of Multiple Correlated Phenotypes in [00476.pdf](#)
- ✓ Integration of High-dimensional Genomic and Imaging Features for Risk Prediction of Lung Cancer [00484.pdf](#)
- ✓ Kernel machine association testing for longitudinally-measured quantitative phenotypes [00387.pdf](#)

Session 83 10G. Change-Point Detection and Inference

- ✓ Change-point detection for locally dependent data [00415.PDF](#)
- ✓ False Discovery Rate Control for Multiple Change-point Detection [00822.pdf](#)
- ✓ Multiscale Change Point Inference for Heterogeneous Data - with Applications to Ion Channel Recordings [00278.PDF](#)

Session 84 10H. Solutions for Dealing with Large Spatial and Spatiotemporal Data

- ✓ Multi-Resolution Spatial Random-Effects Models for Automatic Fixed-Rank Kriging". [00150.PDF](#)
- ✓ Kriging Asymptotics for Multiresolution Processes [00198.pdf](#)
- ✓ Flexible point process models for global lightning occurrences [00714.PDF](#)

Session 85 7I. ISBA Sponsored Invited Session: "Current Challenges in Environmental Sciences"

- ✓ Regression-Based Covariance Functions for Nonstationary Spatial Modeling [00217.PDF](#)
- ✓ On Dynamic Nearest-Neighbor Gaussian Process Models for High-Dimensional Spatiotemporal Data [00205.pdf](#)
- ✓ A Bayesian Spatio-Temporal Factor Analysis Model for Predicting Sea Levels Along the US Coast [00407.PDF](#)

Session 86 2G. New Insights from Biomedical Research and Big Data Analytics

- ✓ Group-combined P-values with applications to genetic association studies [00648.pdf](#)
- ✓ Prognostic accuracy for semi-parametric mixture cure models [00080.pdf](#)
- ✓ Estimation of semivarying coefficient time series models with ARMA errors [00384.PDF](#)

Session 87 7J. Statistical and Causal Inference on Modeling Complex and Massive Data

- ✓ High Dimensional Variable Selection for Longitudinal Data with Covariate Measurement Error and Response Dropouts [00318.pdf](#)
- ✓ Structural Identification and Variable Selection in High-Dimensional Varying-Coefficient Models [00418.PDF](#)
- ✓ Causal analysis of administrative data and methodological challenges [00855.pdf](#)
- ✓ Sequential Model Selection-Based Segmentation to [00676.pdf](#)

Session 88 2H. Recent Advances in Integrative Analysis of Omics Data

- ✓ Integrating genotype and phenotype data to uncover therapeutic targets and markers in cancer [00705.pdf](#)
- ✓ ANALYSIS OF MULTI-OMICS DATA FOR IDENTIFYING MUTI-MARKERS: APPLICATION TO PANCREATIC CANCER [00741.pdf](#)
- ✓ Testing for genetic associations in arbitrarily structured populations [00841.pdf](#)

Session 89 10I. Recent Advances in Network Analysis

- ✓ Statistical and Computational Guarantees of Lloyd's Algorithm [00511.PDF](#)
- ✓ Semidefinite Programs for Exact Recovery of a Hidden Community [00550.pdf](#)
- ✓ Persistence of centrality in random growing trees [00969.PDF](#)
- ✓ A Semidefinite Program for Structured and Dynamic Blockmodels [00250.PDF](#)

Session 90 2I. Missing Data Issues in Regulatory Clinical Trials

- ✓ Coping with missing data in Phase III pivotal registration trials: Tolvaptan in Subjects with kidney disease, A Case Study [00997.pdf](#)
- ✓ U-STATISTICS FOR SOME MISSING DATA MODELS [00330.pdf](#)

Session 91 3F. New Inferential Procedures in Semiparametric Regression Models

- ✓ Cluster Feature Selection in High Dimensional Linear Models [00419.PDF](#)

Session 92 8J. Joint Modeling in Clinical Trials

- ✓ Statistical challenges in longitudinal studies with non-ignorable missing data [00963.pdf](#)
- ✓ Joint modeling in palliative care research [00956.pdf](#)
- ✓ Dynamic Prediction for Multiple Repeated Measures and Event Time Data: an Application to Parkinson's Disease [00129.pdf](#)

Session 93 10J. Recent Advances on ODE/PDE Modeling and Its Applications

- ✓ Optimal control and additive perturbations help in estimating ill-posed and uncertain dynamical systems [00294.PDF](#)
- ✓ How Genes Coordinate Competition and Cooperation: New Insight by Integrating [00678.pdf](#)
- ✓ Constrained Nonlinear and Mixed Effects Differential Equation Models for Dynamic Cell Polarity Signaling [00308.pdf](#)

Session 94 10K. Novel Statistical Methods in the Era of Big Data

- ✓ Reference-free Learning with Multiple Metagenomic Samples [00985.PDF](#)
- ✓ Spline Smoothing with Large Data [00117.PDF](#)
- ✓ Systematic tissue-specific functional annotation of the human genome highlights immune-related DNA elements for late-onset [00857.pdf](#)

Session 95 11H. Nonignorable Missing Data

- ✓ Spatial Covariance Function with Stochastic Volatility [00936.PDF](#)
- ✓ Model Averaging for Regression with Fragmented Data [00195.pdf](#)
- ✓ Recent Advances in Handling Nonignorable Nonresponse [00918.pdf](#)
- ✓ Nonparametric Bayesian Modeling for Potentially Nonignorable Attrition in Longitudinal Studies with Refreshment Samples [00527.pdf](#)

Session 96 10L. Statistics and Causal Inference: Where Are We and Where Are We Heading?

- ✓ Some Remarks on Missing Data and Causality [00821.pdf](#)
- ✓ Identifying Causal Effects with Negative Controls [00868.pdf](#)
- ✓ Bias-Reduced Double Robust Estimation [00872.PDF](#)
- ✓ Negative Outcome Control of Unobserved Confounding [00991.pdf](#)

Session 97 4G. Data Optimization and Risk Control

- ✓ The AVaR Optimization Problems for semi-Markov Decision Processes [00661.PDF](#)
- ✓ Adaptive spectral estimation for nonstationary multivariate time series [00068.pdf](#)
- ✓ Discrete time zero-sum Markov games with first passage criteria [00658.pdf](#)
- ✓ Some optimization problems for the risk model with dependence structure [00662.PDF](#)

Session 98 8K. ISBA Sponsored Invited Session: "Theory and Applications of Bayesian Nonparametrics"

- ✓ Dependent random measures in Bayesian Nonparametrics [00105.pdf](#)
- ✓ Joint Estimation of Quantile Planes over Arbitrary Predictor Spaces [00389.PDF](#)
- ✓ Softplus Regressions and Convex Polytopes [00898.pdf](#)

Session 100 4H. Recent Developments in Handling Multiplicity: Error Rates and Inference on Subgroups

- ✓ Inference on Subgroups and All-comers Cognizant of Logical Relationships Among Efficacy Parameters [00243.pdf](#)
- ✓ ERRORS IN MULTIPLE TESTING BIG AND SMALL, MORE OR LESS [00636.pdf](#)
- ✓ Logical Inference on Treatment Efficacy in Subgroups and Their Mixtures [00651.pdf](#)
- ✓ A Group Sequential Closed Testing Procedure Based on Simes Test for Clinical Trials with Multiple Objectives [00965.pdf](#)

Session 101 4I. SIB Special Invited Session: "Statistics in Genomics"

- ✓ Robust modeling of RNA sequencing data [00138.pdf](#)
- ✓ DNA sequence+shape kernel enables alignment-free modeling of transcription factor binding [00914.pdf](#)
- ✓ Improving Hierarchical models using historical data [00641.pdf](#)
- ✓ Statistics requantitates the central dogma [00832.pdf](#)

Session 102 12G. Recent Topics on Extreme Values

- ✓ A Peak-Over-Threshold Search Method for Global Optimization [00333.PDF](#)
- ✓ Statistical inference for jump discontinuities in varying coefficient models with empirical analysis [00839.pdf](#)
- ✓ Endpoint estimation for observations with normal measurement errors [00913.PDF](#)

Session 103 III. Recent Development in Multiple Testing and Post Selection Inference in High-Dimensional Regres

- ✓ A New Approach to Multiple Testing of Grouped Hypotheses [00109.PDF](#)
- ✓ Statistical Limitation of GWAS to Discover SNPs That Are Causal [00216.pdf](#)
- ✓ Sequential Multiple Testing for Variable Selection in High Dimensional Linear Model [00293.pdf](#)
- ✓ From higher criticism and local levels of GOF tests to confidence bounds for the proportion of true nulls [00540.pdf](#)

Session 104 9I. Recent Advances on MM Algorithms

- ✓ The assembly and decomposition (AD) method for constructing separable [00755.pdf](#)
- ✓ An MM Algorithm for the Split-Feasibility Problem [00190.PDF](#)
- ✓ Stochastic Majorization-Minimization for Machine Learning [00583.PDF](#)
- ✓ MM Algorithms For Variance Components Models [00107.pdf](#)
- ✓ A NOVEL MM ALGORITHM AND THE MODE-SHARING METHOD IN BAYESIAN COMPUTATION FOR THE ANALYSIS [00084.pdf](#)

Session 105 5H. Recent Statistical Advances and Challenges in Cancer Studies

- ✓ Colorectal Cancer Risk Classification with Genetic and Environmental Data via Kernel Machine Methods [00414.pdf](#)
- ✓ Fiducial Inference on a Biomarker Adaptive Design [00405.pdf](#)
- ✓ An Adaptive Bayesian Sequential Design for Determining the Subject-Specific Optimal Treatment Length [00233.pdf](#)
- ✓ Adaptive Enrichment Trials for Biomarker-guided Treatments [00640.PDF](#)

Session 106 5I. Challenges to Statistical Issues in Complex Clinical Trials

- ✓ Power and Sample Size Calculation Using Graphical Approaches [00197.pdf](#)
- ✓ An Adaptive Enrichment Design with Sample Size Re-estimation--A Case Study [00555.pdf](#)
- ✓ Optimal flexible sample size design with interim dose determination [00133.pdf](#)
- ✓ Interim Evaluation of Efficacy or Futility in Group-sequential Clinical Trials [00248.PDF](#)

Session 107 6I. Challenges to Statistical Issues in Multiregional Clinical Trials

- ✓ Design and analysis of Multi-Regional Clinical Trials: Regulatory and statistical perspective [00850.pdf](#)
- ✓ Statistical Implications of Extrapolating the Overall Result to the Target Region in Multi-Regional Clinical Trials [00225.PDF](#)

Session 108 9J. New Methods for Large Graphical Models and Genetic Data

- ✓ Integrative approach to cancer driver gene discovery from somatic mutations [00528.PDF](#)
- ✓ Detecting rare and weak spikes in large covariance matrices [00526.PDF](#)
- ✓ Scalable Nonparametric Bayesian Learning of Heterogeneous Dynamic Poisson Graphical Models [00900.PDF](#)

Session 109 5J. Caveats, Challenges, and Opportunities for Indirect Comparisons Using Clinical Trial Data

- ✓ Confounder adjustment on treatment effect when using observational study as control [00829.pdf](#)
- ✓ CAVEATS, CHALLENGES, AND OPPORTUNITIES FOR INDIRECT COMPARISONS USING CLINICAL TRIAL DATA [00563.pdf](#)
- ✓ Meta-analysis of Efficacy and Safety of the New Anticoagulants Versus Warfarin in Patients With Atrial Fibrillation [00564.pdf](#)

Session 110 8L. Recent Advances in Robust High-Dimensional Estimation and Inference

- ✓ Robust Covariance/Scatter Matrix Estimation via Matrix Depth [00104.PDF](#)
- ✓ A Note on High Dimensional Z-Estimators [00950.PDF](#)
- ✓ A General Decision Theory for Huber's Robust Framework [00578.pdf](#)

Session 111 2J. Big data in Drug Development

- ✓ Real World Data in Pharmaceutical Development [00961.pdf](#)
- ✓ Analyze Cancer-Immune Genomics Data to Explore Predictive Biomarker for Immune Checkpoint Inhibitor [00968.pdf](#)

Session 112 6J. Recent Developments in Measurement Error Models

- ✓ A Multivariate Student-t Regression Model with Measurement Errors for Censored Data [00514.PDF](#)
- ✓ Nonparametric statistical tools for genome-wide detection of clustering and spatial association among mutations under a micr [00975.pdf](#)

Session 113 3G. Statistical Advances in Bioinformatics and Integrative Genomics

- ✓ Functional CAR models for large spatially correlated functional datasets [00412.pdf](#)
- ✓ Hypothesis Test of Mediation Effect in Causal Mediation Model with High-dimensional Continuous Mediators [00982.pdf](#)
- ✓ Integrative clustering of multi-level omics data for disease subtype discovery using sequential double regularization [00962.PDF](#)

Session 114 1G. Advances in Bayesian Methods for Large Complex Data

- ✓ Bayesian Neural Networks for Selection of Anticancer Drug Response Genes [00983.PDF](#)
- ✓ Prediction risk for global-local shrinkage regression [00591.PDF](#)
- ✓ A Bayesian Hierarchical Spatial Model for Dental Caries Assessment Using Non-Gaussian Markov Random Fields [00116.PDF](#)
- ✓ Nearly optimal Bayesian Shrinkage for High Dimensional Regression [00509.PDF](#)

Session 115 7K. Emerging Statistical Issues in Clinical Research

- ✓ Impact of Misspecified Covariance Structure on the Parameter Estimates in a Shared Spatial Frailty Model [00341.pdf](#)
- ✓ Recent Advances in Personalized Medicine: Optimizing the Value of a Decision in Treatment Decisions [00122.PDF](#)
- ✓ Modeling Strategies for Developing Differential Response to Treatment Indices (DRTI) [00242.pdf](#)
- ✓ A Joint Modeling Approach for Treatment Response and Baseline Imaging data [00744.pdf](#)

Session 116 1H. New Advancements in Biostatistics

- ✓ Semiparametric Transformation Models for Interval-Censored Data with Longitudinal Covariates [00615.pdf](#)
- ✓ A Classification Method Based on Finite Mixture Models for Early Detection of Cancer [00346.PDF](#)
- ✓ A semiparametrically efficient estimator of the time-varying effects for survival data with time-dependent treatment [00120.pdf](#)
- ✓ Empirical likelihood based tests for stochastic ordering under right censorship [00395.PDF](#)

Session 117 4J. Biostatistics in Large Databases

- ✓ Model selection for marginal regression analysis of longitudinal data with missing observations and covariate measurement err [00845.pdf](#)
- ✓ EXTENSIONS OF THE SUFFICIENT DIMENSION REDUCTION [00533.pdf](#)

Session 118 12H. Statistical Methods and Strategies in Interdisciplinary Studies

- ✓ Automated Feature Identification Using Online Knowledge and EMR Data [00251.PDF](#)
- ✓ Lasso adjustments of treatment effect estimates in randomized experiments [00935.pdf](#)

Session 119 7L. Causal Inference

- ✓ Sizes of Markov Equivalence Classes of Directed Acyclic Graphs [00863.pdf](#)
- ✓ Asymptotic Theory of Rerandomization in Treatment-Control Experiments [00680.PDF](#)
- ✓ The causal effect is hard to estimate because of the existence of the confounder. [00859.pdf](#)
- ✓ Selecting confounding variables via the Lasso [00860.PDF](#)

Session 120 II. Contemporary Clinical Trials/Contemporary Clinical Trials Communication Special Invited Session

- ✓ Prediction of long term outcome from pathological complete response for early breast cancer [00666.pdf](#)

Session 121 7M. KISS Sponsored Invited Session: "Recent Topics in Survey Sampling and Missing Data Analysis"

- ✓ Bivariate Penalized Spline Estimation in Spatial Survey Sampling [00577.pdf](#)
- ✓ Multiple Imputation for Handling Missing Data under Informative Sampling [00943.PDF](#)
- ✓ Enhancement of Variational Mode Decomposition with Missing Values [00303.pdf](#)
- ✓ Spatial Bayesian Hierarchical Model for Small Area Estimation of Proportions [00777.pdf](#)

Session 122 12I. The Recent Development of Statistical Methods for Decision Making in Clinical Development

- ✓ Statistical Approach to Improve the Probability of Success in Phase III Clinical Trials [00269.pdf](#)
- ✓ Leveraging Bayesian Network meta-analysis to improve drug development [00360.pdf](#)

Session 123 11J. Nonparametric Methods for Complex Data

- ✓ Nonparametric Methods in Business Analytics [00682.pdf](#)
- ✓ Locally robust methods and near-parametric asymptotics [00163.pdf](#)
- ✓ Deviation between Smooth Empirical and Quantile Processes for Mixing Random Variables [00143.pdf](#)

Session 124 1J. Stochastic Differential Equation and Random Polymer

- ✓ Intermittency of Stochastic Partial Differential Equations [00331.PDF](#)
- ✓ Subdiffusivity of a random walk among a Poisson system of moving traps on Z [00112.pdf](#)

Session 125 2K. Large Dimensional Matrices

- ✓ High Dimensional Correlation Matrices: CLT and Its Applications [00530.pdf](#)

Session 126 3H. Random Matrix Theory and Stochastic Algorithms

- ✓ on the local Single Ring Theorem [00546.PDF](#)
- ✓ Optimal Convergence Rate for Online PCA [00390.pdf](#)
- ✓ Error Bounds for Sequential Monte Carlo Samplers for Multimodal Distributions [00592.PDF](#)
- ✓ One dimensional free fermions at finite temperature and the MNS matrix model [00999.PDF](#)

Session 127 3I. Precision Medicine and Big Data: from Bench to Bedside

- ✓ A cautionary note on using cross-validation for molecular classification [00672.pdf](#)
- ✓ Optimal Sequential Enrichment Designs for Phase II Clinical Trials [00669.pdf](#)

Session 128 11K. New Bayesian and Robust Statistical Models and Their Applications in Sciences

- ✓ A new robust regression model: Type II multivariate t distribution with applications [00224.pdf](#)
- ✓ A FALSE DISCOVERY APPROACH FOR SCANNING SPATIAL DISEASE CLUSTERS WITH ARBITRARY SHAPES [00704.PDF](#)
- ✓ Bayesian Approaches for Analyzing Earthquake Catastrophic Risk [00752.pdf](#)

Session 129 1K. Statistical Leadership in Drug Development in China

- ✓ What and Where We Can Do More and Better [00835.pdf](#)
- ✓ How to work beyond being a statistical copycat in China Medicines Development? [00938.pdf](#)

Session 130 4K. Topics in Multi-Regional Clinical Trials and Bridging Trials

- ✓ Some considerations on how to participate MRCT in China - ICSA Dec 2016 [00785.pdf](#)
- ✓ A Nested Group Sequential Framework for Regional Evaluation in Global Drug Development Program [00792.pdf](#)
- ✓ Bridging Study in Dose Finding Using Bayesian Logistic Regression Models [00614.pdf](#)
- ✓ How Much General Population Data Should Be Used to Inform a Specific Sub-Population? Bayesian Dynamic Borrowing Meth [00334.PDF](#)

Session 131 5K. Real World Data in China and Statistical Considerations in Real World Data Analysis

- ✓ IDENTIFYING HIGH-VALUE TREATMENT POPULATIONS IN REAL-WORLD DATA [00420.pdf](#)

Session I32 5L. Recent Advances on Statistical Methods for RNA Sequencing Data

- ✓ A computationally extremely fast algorithm designed for genomewide association studies and differential expression analysis st [00974.pdf](#)
- ✓ Learning useful information from existing RNA-Seq data sets [00814.pdf](#)
- ✓ A Non-parametric Model to Address Overdispersed Count Response in a Longitudinal Data Setting with Missingness [00639.pdf](#)
- ✓ Analyzing Heterogeneity in Single Cell RNA-sequencing [00630.pdf](#)

Session I33 6K. ICSA-Midwest Chapter Sponsored Invited Session: “Modern Biostatistical Issues in Cohort Studies”

- ✓ Adjusting for incomplete death ascertainment in joint models: a multiple-imputation approach [00485.PDF](#)
- ✓ Improving efficiency in semi-competing risks data with partially observed terminal event [00508.PDF](#)
- ✓ Semiparametric analysis of competing risks data for studies with double-sampling designs [00474.PDF](#)

Session I34 8M. ICSA-Midwest Chapter Sponsored Invited Session: “Recent Development in Event Time Data Ana

- ✓ Model Selection and Structural Discovery in Multivariate Semiparametric Regression [00232.pdf](#)
- ✓ Readmission Time Analysis for Psychiatry Patients Based on a Chi-Squared Goodness of Fit Test for Recurrent Events [00713.PDF](#)
- ✓ Goodness-of-fit Test for Distribution Function in the Presence of Recurrent Event Data [00505.pdf](#)
- ✓ Proportional Likelihood Ratio Mixed Model for Longitudinal Discrete Interval Data [00315.pdf](#)
- ✓ Bivariate Survival Data with Semi-competing Risk [00230.pdf](#)

Session I35 6L. Statistical Innovations in Clinical Trials

- ✓ An application of functional clustering model in clinical trials [00461.PDF](#)
- ✓ Incorporate historical data for clinical study design using Bayesian method [00377.pdf](#)
- ✓ Can Blinded Safety Review Be Informative? -- How to decipher safety information from Blinded Data? [00607.pdf](#)
- ✓ Functional data analysis in application to dose-titration studies [00361.pdf](#)
- ✓ Understanding "modes of operation" from RCT data by employing mediation analysis [00416.pdf](#)

Session I36 3J. Missing Data Handling in Clinical Trials

- ✓ Pattern Mixture Model with Application in Clinical Trial [00471.PDF](#)
- ✓ Investigations on Multiple Imputation [00374.pdf](#)
- ✓ Estimate treatment effect among completers in clinical trials [00464.pdf](#)

Session I37 4L. CJS Special Invited Session: “BFF (Bayesian/frequentist/fiducial Inferences in the New Era of Data

- ✓ Fiducial Inference: Fisher’s Big Blunder or Big Bang? [00386.PDF](#)
- ✓ Combining Inferences from Multiple Sources using Confidence Distributions: "Fusion Learning" - the Right Way [00532.pdf](#)
- ✓ Generalized Fiducial Inference for High Dimensional Problems [00291.PDF](#)

Session I38 5M. CJS Special Invited Session: “BFF (Bayesian/frequentist/fiducial) Inferences in the New Era of Data

- ✓ Dempster-Shafer methods for one- and two-sample comparison of quantiles, with applications to HIV vaccine evaluation [00885.PDF](#)
- ✓ Exact inference with partially specified Bayesian models [00157.PDF](#)
- ✓ A Nonparametric Bayesian Approach for Sparse Sequence Estimation [00434.PDF](#)
- ✓ Approximate Confidence Distribution Computing (ACC) [00776.pdf](#)

Session I39 7N. Fusion Learning: The Art of Integrating Information from All Relevant Sources

- ✓ An adaptive Fishers method for combining information across samples [00337.pdf](#)
- ✓ Multivariate Extensions for Combining N-of-I Trials [00411.pdf](#)
- ✓ Extending Survival Probability Curve Using Information from Various Sources [00510.pdf](#)

Session I40 9K. Advances in Latent Variables Models for Educational Testing

- ✓ Bayesian Nonparametric Monotone Regression of Dynamic Latent Traits in Item Response Models [00986.PDF](#)

Session I41 2L. Statistical Genetics and Genomics

- ✓ STRATEGIES FOR CONDUCTING MULTI-LOCUS ANALYSIS USING SINGLE-LOCUS SUMMARY STATISTICS [00689.pdf](#)
- ✓ A novel chi-square statistic for detecting group differences between pathways in systems epidemiology [00957.pdf](#)

Session I42 8N. KISS Sponsored Invited Session: “Hierarchical Likelihood Approach for Quality Improvement Exp

- ✓ Estimation of Case Fatality Rate of South Korean MERS using Run-Off Triangle Approach [00720.pdf](#)
- ✓ A HGLM Modeling Approach for Accelerated Life Tests [00906.pdf](#)
- ✓ Hierarchical Likelihood Approach to Factor and Structural Equation Models [00345.PDF](#)
- ✓ Analysis of Degradation Data using Double Hierarchical Generalized Linear Model [00344.PDF](#)

Session I43 9L. Statistical Methods for Large Dimensional Data

- ✓ On an Example where the Marcenko-Pastur Law Does Not Hold [00626.pdf](#)
- ✓ Alternative asymptotics for cointegration tests in large VARs [00151.pdf](#)
- ✓ Shrinkage Estimation Techniques for Large Dimensional Data [00175.pdf](#)
- ✓ High Dimensional Correlation Matrices: CLT and Its Applications [00185.PDF](#)
- ✓ On dimensionality effects in linear discriminant analysis for large dimensional data [00987.PDF](#)

Session I44 5N. Brazilian Statistical Association (ABE) Sponsored Invited Session: "Innovation in Survival Modelin

- ✓ Frailty modeling for repairable systems with minimum repair: An application to dump truck data of a Brazilian mining company [00622.pdf](#)
- ✓ THE SIMPLIFIED, EFFECTIVE, LABOR MONITORING TO ACTION TOOL FOR BETTER OUTCOMES IN LABOUR DIFFIC [00735.pdf](#)
- ✓ The zero-inflated promotion cure rate regression modeling: An application to fraud propensity in bank loan applications in Bra [00730.pdf](#)
- ✓ Statistical inference for the single index hazards model [00441.pdf](#)

Session I45 3K. JSS Sponsored Invited Session: "Towards Best Practice in Spatial and Point-Process Data Analysis"

- ✓ Background rates of swarm earthquakes that are synchronized with volumetric strain changes: An application of Point Process [00375.pdf](#)
- ✓ Semi-parametric estimates of the long-term background trend, periodicity, and clustering effect in crime data [00428.PDF](#)
- ✓ Fluctuation scaling in point processes [00901.PDF](#)
- ✓ CARMA Random Fields [00691.pdf](#)

Session I46 1L. JSS Sponsored Invited Session: "Probability Distributions: Recent Advances and Applications"

- ✓ Method of moments in analysis of algorithms: a selected survey [00222.PDF](#)
- ✓ The Bivariate Lack-of-Memory Distributions [00088.PDF](#)
- ✓ B-spline copula and its estimation [00370.PDF](#)
- ✓ Testing dimensionality of multivariate variance components [00442.PDF](#)

Session I47 12J. ICSA-Shanghai Chapter Sponsored Invited Session: "Recent Developments in High Dimensional Mo

- ✓ A General Theory of Hypothesis Tests and Confidence Regions for Sparse High Dimensional Models [00161.PDF](#)
- ✓ Variable selection in the presence of nonignorable missing data [00093.pdf](#)
- ✓ STRUCTURED SUBCOMPOSITION SELECTION IN REGRESSION AND ITS APPLICATION TO MICROBIOME DATA AN [00572.pdf](#)

Session I48 11L. Advances in Panel Count Data Analysis

- ✓ A nonparametric regression model for panel count data [00277.pdf](#)
- ✓ A semiparametric likelihood-based method for regression analysis of mixed panel-count data [00260.pdf](#)

Session I49 4M. Stochastic Differential Equations

- ✓ The stochastic logarithmic Schrödinger equation [00977.pdf](#)
- ✓ LONG TIME BEHAVIOUR OF STOCHASTIC DIFFERENTIAL EQUATION WITH SINGULAR COEFFICIENTS [00751.PDF](#)
- ✓ On elliptic Harnack inequalities for non-local Dirichlet forms on metric measure spaces [00843.PDF](#)
- ✓ The variational principles for a class of stochastic dissipative equations with advected quantities [00740.pdf](#)

Session I50 4N. SSC Sponsored Invited Session: "Survey Sampling Theory and Practice"

- ✓ Simplified variance estimation for complex designs [00391.pdf](#)
- ✓ SAMPLING UNDER CONSTRAINTS: SOME ENVIRONMENTAL APPLICATIONS [00236.PDF](#)
- ✓ SAVING SOCIAL SURVEYS? A CANADIAN PERSPECTIVE [00284.pdf](#)
- ✓ EMPIRICAL LIKELIHOOD FOR PUBLIC-USE SURVEY DATA [00231.pdf](#)

Session I51 6M. SSC Sponsored Invited Session: "Statistical Challenges and Advances in Large-Scale Inference"

- ✓ Multiple Confidence Intervals for Selected Parameters Adjusted for the False Coverage Rate in Dose Response Microarray Ex [00125.PDF](#)
- ✓ Multiple Testing of Local Maxima for Detection of Peaks in Random Fields [00289.PDF](#)
- ✓ A simultaneous genetic association analysis with multiple traits or longitudinal traits [00343.pdf](#)
- ✓ Covariate Assisted Large-scale Multiple Testing [00525.PDF](#)

Session I52 10N. SSC Sponsored Invited Session: "Statistical Analysis of Event History Data: Recent Advances and

- ✓ Joint Models for Mixed Types of Longitudinal and Survival Data [00297.PDF](#)
- ✓ The Utility of Tracing Studies in Cohorts with Loss to Follow-up [00470.pdf](#)
- ✓ Analysis of Event History Data in Forest Fire Control [00275.pdf](#)
- ✓ Prevalent Cohort Studies: Length-Biased Sampling with Right Censoring [00642.PDF](#)

Session 153 2M. Removing Effects of Confounding Variables

- ✓ Addressing Confounding Factors Problems with Instrumental Variables [00126.PDF](#)
- ✓ Removing Unwanted Variation with Replicates and Negative Controls [00359.pdf](#)
- ✓ Degrees of freedom for combining multiple regression with factor analysis [00882.PDF](#)
- ✓ Confounder Adjustment in Multiple Hypotheses Testing [00677.PDF](#)

Session 154 2N. SSC and ICSA-Canada Chapter Sponsored Special Tutorial Session: "Data Science: Who Cares?"

- ✓ Data Science: Novel Training Programs [00664.pdf](#)
- ✓ Data Science: Novel Training Programs [00663.PDF](#)
- ✓ Data Science: Novel Training Programs [00141.pdf](#)

Session 155 12L. Recent Advances in System Informatics Using Degradation Data

- ✓ Remaining useful life prediction method considering both smooth degradation and abrupt damages [00802.pdf](#)
- ✓ A Prognostic Model for Stochastic Degrading Systems with State Recovery [00763.pdf](#)
- ✓ A General Wiener Process Model for Heterogeneous Degradations based on Kriging [00738.PDF](#)
- ✓ Exponential Dispersion Process For Degradation Analysis [00739.pdf](#)

Session 156 5O. Random Fields in Statistics and Applications

- ✓ Estimating the smoothness of a Gaussian random field from irregularly spaced data [00656.pdf](#)
- ✓ Isotropic random fields and point processes on graphs and their edges [00949.pdf](#)
- ✓ Sample path properties of Gaussian Random fields on the sphere [00439.PDF](#)
- ✓ Multiple testing of local maxima for detection of peaks on the (celestial) sphere [00902.pdf](#)

Session 157 6N. Recent Developments in Financial Econometrics

- ✓ Volatility of volatility: estimation and tests based on noisy high frequency data [00798.pdf](#)
- ✓ Quantile regression for partially linear varying-coefficient model with censoring indicators missing at random [00702.pdf](#)
- ✓ High Dimensional Minimum Variance Portfolio Estimation [00919.PDF](#)

Session 158 12M. Recent Developments in Network Data Analysis

- ✓ Trimmed estimators for large dimensional sparse covariance matrices [00710.PDF](#)
- ✓ Community Detection for Sparse Networks. [00836.PDF](#)
- ✓ Community Detection of Sparse Networks: A Review and Two New Methods [00903.pdf](#)
- ✓ On Feature Scaling [00976.pdf](#)

Session 159 1M. High-Dimensional Big Data Integration with Biomedical Applications

- ✓ EXTRA HIGH-DIMENSIONAL LINEAR ODE MODEL SELECTION AND PARAMETER ESTIMATION: A MATRIX-BASED A [00177.pdf](#)
- ✓ Composite likelihood inference on stochastic block model for big networks [00227.PDF](#)
- ✓ Data Analysis and Control of the Transmission of Dengue in Guangzhou [00276.pdf](#)
- ✓ BioKDE: a platform for biological big data integration and analysis [00340.pdf](#)

Session 160 1N. ICSA-New England Chapter Sponsored Invited Session: "Statistics in the Paradigm of Precision Me

- ✓ Combination Rule in the Rare Disease Domain (Design and Testing Strategy) [00402.pdf](#)
- ✓ Methods for Identifying Promising Subpopulations of Patients [00237.pdf](#)

Session 161 12N. Change-Point Detection and Related Topics

- ✓ Projection-based High-Dimensional Process Monitoring Using Real-time Contrast [00649.pdf](#)
- ✓ A new change point detection method for identifying DNA copy number variations using NGS read-depth data [00637.pdf](#)
- ✓ Scalable SUM-Shrinkage Schemes for Distributed Monitoring Large-Scale Data Streams [00623.pdf](#)
- ✓ POST-CHANGE INFERENCE AFTER SEQUENTIAL CHANGE-POINT DETECTION IN PANEL DATA [00397.pdf](#)

Session 162 2O. ICSA-Biometrics Section Sponsored Invited Session: "Biostatistical Research for Survival L ongitudi

- ✓ A Two-stage Model for Wearable Device Data [00978.pdf](#)
- ✓ Cox Model with Interval-Censored Covariate in Cohort Studies [00548.pdf](#)
- ✓ Pearson's Chi-square Test and Rank Correlation Inferences for Clustered Data [00287.PDF](#)
- ✓ Estimating Gestational Age from Maternal Anthropometry During Pregnancy [01000.pdf](#)

Session 163 1O. New Challenges in Subgroup Analysis

- ✓ Sensitive Subpopulation Finding with Biomarkers in a Randomized Clinical Trial [00371.pdf](#)
- ✓ Optimal Two-Stage Adaptive Enrichment Designs, using Sparse Linear Programming [00463.pdf](#)
- ✓ Bias correction in subgroup analysis [00581.pdf](#)

Session 164 IIM. Advances in Limit Theorems of Applied Probabilities

- ✓ Large Deviation Probabilities for Sums of Heavy-Tailed Random Vectors [00917.pdf](#)
- ✓ Limit Behaviors of the Generalized Random Graphs [00932.PDF](#)
- ✓ On the increasing paths in accessibility percolation [00940.PDF](#)

Session 165 9M. Advance Asymptotic Methods for Statistics

- ✓ Robust closed-form estimators for the integer-valued GARCH(1,1) model [00152.PDF](#)
- ✓ CLT for linear spectral statistics of large dimensional sample covariance matrices with dependent data [00939.PDF](#)
- ✓ Efficient Empirical Likelihood Inference in Partial Linear Models for Longitudinal Data [00916.pdf](#)
- ✓ Bernstein Inequality for Multivariate Point Processes [00933.pdf](#)

Session 166 IIN. Recent Development in Adaptive Study Designs for Early Phase Clinical Trials

- ✓ A Robust Bayesian Dose-Finding Design for Phase I/II Clinical [00286.pdf](#)
- ✓ Incorporating historical data in Bayesian phase I trial design: Evaluating the similarity in dose-toxicity relationship between patients [00364.pdf](#)
- ✓ A Bayesian logistic regression model with cohort size adaptation based on posterior probabilities in phase I cancer trials [00665.pdf](#)
- ✓ Bayesian optimal interval design for dose finding based on both efficacy and toxicity outcomes [00686.pdf](#)

Session 167 3L. ICSA-Shanghai Chapter Sponsored Invited Session: "MRCT Practice in China"

- ✓ Performance Comparison of Consistency Trending Evaluation Approaches [00723.pdf](#)
- ✓ Estimating the Consistency Assurance for China Subgroup in a Global Study [00722.pdf](#)
- ✓ MRCTs for China Submission - Practice, Challenge and Future direction [00462.pdf](#)

Session 168 3M. RSS Sponsored Invited Session: "New Models for Longitudinal/Survival Data and Beyond"

- ✓ Robust Hypothesis Testing for Asymmetric Nominal Densities under a Relative Entropy Tolerance [00849.pdf](#)
- ✓ Ignorability and Unbalanced Longitudinal Data [00448.pdf](#)
- ✓ Modeling of covariance structures of random effects and random errors in linear mixed models [00952.PDF](#)
- ✓ HYBRID GRAPHICAL LEAST SQUARE ESTIMATION AND ITS APPLICATION IN PORTFOLIO SELECTION [00941.pdf](#)

Session 169 4O. New Methods for Analyzing Sensitivity, Covariance and Design

- ✓ Distributed Detection Fusion via Monte Carlo Importance Sampling [00650.pdf](#)
- ✓ Augmented Uniform Designs [00634.PDF](#)
- ✓ Iterative Algorithms for Estimating High-dimensional Covariance Matrices [00867.PDF](#)
- ✓ Joint modelling of between-subject and within-subject covariance matrices [00352.PDF](#)

Session 170 9N. RSS Sponsored Invited Session: "New Methods for Modeling of Complex and Challenging Data"

- ✓ A Spline Growth Model for Multivariate Data [00557.PDF](#)
- ✓ Functional LARS and Analysis of Big Medical Movement Data [00454.PDF](#)
- ✓ Joint mean-covariance modelling and its R package: jmcm [00854.PDF](#)
- ✓ Data Adaptive Tail-index Regression [00753.PDF](#)

Session 171 8O. Stein's Method and Applications

- ✓ Normal Approximation for Random Measures: From Palm theory to Stein's method [00339.pdf](#)
- ✓ On the Ginibre point process and its applications [00452.PDF](#)
- ✓ Berry-Esseen bounds of normal and nonnormal approximation for unbounded exchangeable pairs [00896.PDF](#)
- ✓ Stein's Method for Steady-State Diffusion Approximations [00971.PDF](#)

Session 172 IP. BioStatistical Methods and Biological Application for Health Sciences

- ✓ Genomic modelling for cancer survival prediction [00503.PDF](#)
- ✓ Study of the effect of metal trace elements from old antimony mine on plant communities by cluster analysis [00451.pdf](#)
- ✓ Oxidative Stress Tolerance Induced by Antimony in Endophytic *Aspergillus* sp. Resistant to Antimony: Its Possible Role in Bior [00353.pdf](#)

Session 173 2P. BioStatistical Methods and Models: Application for Health Sciences

- ✓ Parametric Inference on Longitudinal Data Driven by Long Distance Memory [00947.pdf](#)
- ✓ Statistical Inference of Latent Class Models with Application to Mental Health Disorders [00948.pdf](#)
- ✓ Health related quality of life measurement in longitudinal studies [00944.PDF](#)

Session 175 4P. KSS Sponsored Invited Session: "Modeling and Analysis of Complex Biomedical Data"

- ✓ Penalized exponential tilt model for analysis of high-dimensional DNA methylation data [00350.PDF](#)
- ✓ Statistical Validation in Dynamic Molecular Systems for Gene Regulatory Networks [00790.pdf](#)

Session 176 5P. KSS Sponsored Invited Session: “Modern Statistical Analytics”

- ✓ Robust Ridge Regression Estimators for Nonlinear Models with Applications to High Throughput Screening Assay Data [00701.pdf](#)
- ✓ A Class of RSN Distributions and Its Applications [00655.pdf](#)
- ✓ A Simulation Study for Estimating Average Causal Effect of Latent Class [00793.PDF](#)
- ✓ A Quality Control Technique Applying to the Meteorological Observation Data [00865.pdf](#)

Session 177 9O. Recent Developments in Machine Learning and Data Mining (I)

- ✓ Nonparametric Variable Selection and Screening [00259.PDF](#)
- ✓ Maximum likelihood inference for a large precision matrix [00942.pdf](#)

Session 178 6O. ICSA-New England Chapter Sponsored Invited Session: “Statistical Topics in the Design and Analy

- ✓ Planning Sample Size Using MMRM in Confirmatory Trials [00178.pdf](#)
- ✓ Assessment of p-value quality in Phase 3 Clinical Trial [00401.pdf](#)
- ✓ Robust Methods for Treatment Effect Calibration, with Application to Non-Inferiority Trials [00103.pdf](#)

Session 179 10O. Technometrics Special Invited Session: “Some New Statistical Methods on Big Data Analysis”

- ✓ Statistical Learning of Neuronal Functional Connectivity [00314.pdf](#)
- ✓ Orthogonalizing EM: A design-based least squares algorithm [00466.pdf](#)
- ✓ Measuring Influence of Users in Twitter Ecosystems Using a Counting Process Modeling Framework [00953.pdf](#)

Session 180 10P. ICSA-Midwest Chapter Sponsored Invited Session: “Statistical Methods in HIV Prevention Resea

- ✓ Combining Multiple Adherence Measures in HIV Prevention Trials [00512.PDF](#)
- ✓ Sieve Analysis Using the Number of Infecting Pathogens [00173.pdf](#)
- ✓ Analysis of Longitudinal Adherence Measures from HIV Pre-Exposure Prophylaxis Studies [00144.PDF](#)
- ✓ Data-adaptive estimation of genotype-specific vaccine efficacy in HIV and Malaria Phase III trials [00558.pdf](#)

Session 181 12N. Recent Development in Stochastic Processes

- ✓ Stochastic Analysis On Manifolds With Time-Dependent Riemannian Metric [00818.pdf](#)
- ✓ Potential theory of subordinate killed Brownian motions [00621.PDF](#)
- ✓ Stationarity and quasi-stationarity for birth-death processes [00372.pdf](#)
- ✓ Fluctuating-rate model and associated rate formula for phenotype transition in single-cell biology [00153.PDF](#)

Session 182 7O. Asymptotics of Stochastic Differential Equations

- ✓ Quantitative stability estimates for solutions of Fokker-Planck equations [00376.PDF](#)
- ✓ Convergence Rate of Euler-Maruyama Scheme for SDEs with Rough Coefficients [00781.PDF](#)
- ✓ The Meyers Inequality for Symmetric Jump Processes in Metric Measure Spaces [00889.PDF](#)
- ✓ local times of two kinds of multifractional stable sheets [00693.pdf](#)

Session 183 6P. Recent Advance in Statistical Process Monitoring of High-Dimensional Processes

- ✓ On-line Monitoring Data Quality of High-dimensional Data Streams [00247.PDF](#)
- ✓ MONITORING LARGE SPARSE CONTINGENCY TABLE IN MULTIVARIATE CATEGORICAL PROCESS [00264.pdf](#)
- ✓ Multivariate Ordinal Categorical Process Control [00801.PDF](#)
- ✓ A FDR-based Multivariate EWMA Chart for High-Dimensional Process [00930.pdf](#)

Session 184 11O. Statistical Profile Monitoring and Its Application

- ✓ Ordinal Profile Monitoring with Random Explanatory Variables [00851.PDF](#)
- ✓ A Self-Starting Chart to Monitor Abrupt Changes in General Linear Profiles [00697.pdf](#)

Session 185 9P. ASA and ICSA-Shanghai Chapter Sponsored Invited Tutorial Session: “Statistical Modelling Using S

- ✓ Bayesian Capabilities in SAS/STAT@ Software [00283.pdf](#)
- ✓ Statistical Model Building for Large, Complex Data: New Directions in SAS/STAT Software [00404.pdf](#)

Session 186 6Q. Statistical Methods for Analyzing Complicated Data

- ✓ SPOT: Sparse Optimal Transformations for High Dimensional Variable Selection and Exploratory Regression Analysis [00989.PDF](#)
- ✓ A nonparametric approach for partial areas under ROC curves [00547.PDF](#)
- ✓ Symbolic Data Analysis: Distributions are the Numbers of the Future [00381.pdf](#)
- ✓ A nonparametric graphical model for functional data with application to brain networks based on fMRI [00926.pdf](#)

Session 187 2Q. ISI Sponsored Invited Session: “How Bayesian Impacts Your Health: Bayesian Applications in Medica

- ✓ Modeling the Oklahoma Mesonet Data with a Multivariate Spatial Dirichlet Process Mixture [00317.pdf](#)

Session 188 8P. Statistical Methods in Medical Diagnosis

- ✓ Cross-sectional design with a short-term follow-up for prognostic imaging biomarkers [00627.PDF](#)
- ✓ Semi-parametric ROC Analysis for Repeated Measurement Data with Measurement Error [00760.pdf](#)
- ✓ The most concordant cutoff point from an ROC curve for construction of a binary diagnosis test [00695.pdf](#)

Session 189 7P. ASA Sponsored Invited Tutorial Session: “Statistics Education in the Era of Big Data”

- ✓ Redesigning statistics education for a data-rich world [00594.pdf](#)
- ✓ LIFETIME DATA ANALYSIS IN THE ERA OF BIG DATA [00549.pdf](#)

Session 190 IQ. Bayesians Analysis in Medical Research

- ✓ A Bayesian Hierarchical Model to Account for Excessive Zero Counts for the Safety Signal Detection [00249.pdf](#)
- ✓ On the Use of Cauchy Prior Distributions for Bayesian Logistic Regression [00393.PDF](#)
- ✓ A general Bayesian method for dose finding in phase I oncology trials [00435.PDF](#)
- ✓ A Bayesian Approach for Determining Dose-Response Relationships Based on Multiple Models [00468.pdf](#)

Session 191 12O. ICSA-Midwest Chapter Sponsored Invited Session: “Real World Evidence and Benefit Risk Assess

- ✓ Selection Criteria for Stratification Factors in Phase III Oncology Clinical Trials [00673.pdf](#)
- ✓ A joint model of an internal time-dependent covariate and bivariate time-to-event data with application to MD STARTnet Data [00258.pdf](#)
- ✓ Addressing Unmeasured Confounding in Comparative Effectiveness Research [00290.pdf](#)

Session 192 IR. Complex data analysis and its Applications

- ✓ Distribution-free inference of zero-inflated binomial data for longitudinal studies [00981.pdf](#)
- ✓ A novel and efficient algorithm for de novo discovery of mutated driver pathways in cancer [00924.PDF](#)
- ✓ Nonparametric regression for Zero-Inflated Poisson model [00828.PDF](#)

Session 193 3N. Statistical Methods in Biomedical Research and Related Topics

- ✓ A new framework of statistical inferences based on the valid joint sampling distribution of the observed counts in an incomp [00679.pdf](#)
- ✓ Bayesian Analysis for Hidden Markov Latent Variable Models with Heterogeneous Transition Patterns [00457.pdf](#)
- ✓ Power Calculation of Multi-step Combined Principal Components with Applications to Genetic Association Studies [00646.pdf](#)
- ✓ To Select Variables One at Most in a Group for Logistic Regression under Case-control Design [00647.PDF](#)
- ✓ Sequential safety monitoring for alerting and stopping a development program [00670.pdf](#)

Session 194 8Q. Bayesian Methods and Missing Data Analysis

- ✓ Bayesian variable selection on semiparametric joint model of multivariate longitudinal and survival data [00635.pdf](#)
- ✓ Statistical Inference for Functional Partial Linear Model with Missing Response at Random [00683.PDF](#)
- ✓ Bayesian influence analysis of nonlinear reproductive dispersion mixed models for longitudinal data with nonignorable missing c [00995.PDF](#)

Session 195 2R. IISA Sponsored Invited Session: “Topics in Change-Point Estimation”

- ✓ Multiscale Inference for Blind Demixing [00140.pdf](#)
- ✓ A New Method for Change Point Estimation [00263.pdf](#)
- ✓ Intelligent Sampling for Identifying Thresholds in Observed Databases and Time Series [00321.PDF](#)
- ✓ Simultaneous multiple change-point and factor analysis for high-dimensional time series [00325.pdf](#)
- ✓ Change-Point Modeling of Copy Number Aberrations in Cancer Genomics [00465.PDF](#)

Session 196 3O. IISA Sponsored Invited Session: “Resampling Methods”

- ✓ Pseudo-likelihood and bootstrapped pseudo-likelihood inference in logistic regression model with misclassified responses [00324.PDF](#)
- ✓ A Resampling Procedure for Post-Model-Selection Inference under Linear Regression Models [00322.pdf](#)
- ✓ Robustness and the Regenerative Bootstrap for Markovian Data [00467.PDF](#)
- ✓ Self-normalized Resampling of Long-Memory Time Series [00070.pdf](#)

Session 197 4Q. IMS Sponsored Invited Session: “Large Scale Statistical Inferences”

- ✓ CARS: Covariate Assisted Ranking and Screening for Large-Scale Two-Sample Inference [00915.pdf](#)
- ✓ Testing uniformity on high-dimensional spheres against symmetric and asymmetric spiked alternatives [00765.PDF](#)
- ✓ Title: Leaning high-dimensional generalized linear auto-regressive models [00811.PDF](#)
- ✓ Tractable Non-Convexity: Matrix Completion, Saddlepoints, and Gradient Descent [00911.pdf](#)

Session 198 10Q. IMS Sponsored Invited Session: “Flexible Modeling and Estimation”

- ✓ New perspectives on heritability estimation and random-effects models in genetics [00192.PDF](#)
- ✓ Set-Valued Multiclass Classifiers: Lowest Ambiguity with Bounded Error Levels [00167.PDF](#)
- ✓ AbstractSchmidtHieber [00348.PDF](#)
- ✓ Density Estimation in Infinite Dimensional Exponential Families [00410.pdf](#)

Session 199 12P. IMS Sponsored Invited Session: “Statistical Problems for Big-Data”

- ✓ Some Statistical Problems Related to Big-Data [00369.pdf](#)
- ✓ Efficient Feature Selection With Big Data [00149.PDF](#)
- ✓ Statistical estimation and the affine Grassmannian [00979.PDF](#)
- ✓ Computationally Efficient Nonparametric Testing [00162.PDF](#)

Session 200 5Q. Recent Development in Multiple Comparison Procedures

- ✓ Counting by weighing: know your numbers with confidence [00139.pdf](#)
- ✓ On Exact Inferences Using Binary Data in Two or Multi-stage Designs [00824.pdf](#)
- ✓ Some Aspects of Multiple Selection Probabilities [00624.pdf](#)
- ✓ The control of the false discovery rate under structured hypotheses [00886.pdf](#)

Session 201 3P. HKSS Sponsored Invited Session: “Recent Advances in Rank-based Analysis”

- ✓ LOGIT TREE MODELS FOR DISCRETE CHOICE DATA WITH APPLICATION TO ADVICE-SEEKING PREFERENCES AMO [00123.pdf](#)
- ✓ The use of penalized likelihood for analyzing ranking data [00355.pdf](#)
- ✓ LATENT-SCALE DISTANCE-BASED MODELS FOR RANK AGGREGATION [00403.PDF](#)
- ✓ SIGNAL RECONSTRUCTION FROM RANKING DATA: AN INDIRECT INFERENCE APPROACH [00473.pdf](#)

Session 202 7Q. HKSS Sponsored Invited Session: “Recent Advances in Functional/Longitudinal Data Analysis”

- ✓ FACTOR ANALYSIS FOR LONGITUDINAL DATA USING TOEPLITZ ERROR STRUCTURE [00449.pdf](#)
- ✓ Transformation model for sparse functional data [00394.pdf](#)
- ✓ On the Convergence of Randomized Kaczmarz Algorithm in Hilbert Space [00164.PDF](#)
- ✓ Nonparametric estimator of strictly monotone regression function for longitudinal data [00998.pdf](#)

Session 204 9Q. Computational Methods in Statistics

- ✓ Local Minimax Complexity of Stochastic Convex Optimization [00973.PDF](#)
- ✓ Estimation in the Ising blockmodel [00660.pdf](#)
- ✓ On Degrees of Freedom of Projection Estimators with Applications to Multivariate Shape Restricted Regression [00270.pdf](#)
- ✓ kNN methods for estimating functionals of the density [00424.PDF](#)

Session 205 10R. Recent Developments in Machine Learning and Data Mining (II)

- ✓ Empirical Likelihood Estimation for High Quantiles [00905.pdf](#)
- ✓ Gaussian approximation and bootstrap theorems for high-dimensional U-statistics [00218.PDF](#)

Session 206 6R. IBS-China and Biometrics Special Invited Session

- ✓ Using Longitudinal Biomarker Data to Dynamically Predict Time to Disease Progression [00245.pdf](#)
- ✓ Functional Inverted-Wishart for Massive Multivariate Spatial Modeling [00118.pdf](#)
- ✓ NONPARAMETRIC MARGINAL ANALYSIS OF RECURRENT EVENTS DATA UNDER COMPETING RISKS [00565.pdf](#)

Session 208 7R. Special Memorial Session of Peter Hall

- ✓ Peter Hall's Contribution to Empirical Likelihood [00972.pdf](#)
- ✓ Peter Hall: HKU and Time Series [00823.pdf](#)

Session 211 11P. Recent Advances in Analysis of Omics Data

- ✓ Integrative Omics Analyses across Multiple Conditions Using Tensor Decomposition and Regularization [00169.pdf](#)
- ✓ An Omnibus Test for Gene-Level Effects of Multi-Omics Data with Application to Childhood Asthma [00499.pdf](#)
- ✓ LLR: a latent low-rank approach to colocalizing genetic risk variants in multiple GWAS [00554.pdf](#)

Session 212 9R. Big Data and Advanced Statistics Methods in Finance

- ✓ Bayesian method and its application to Chinese yield curve estimation [00443.pdf](#)

Session 213 5R. SS Special Invited Session: “Recent Advances in Experimental Designs”

- ✓ A general construction for space-filling Latin hypercubes [00576.pdf](#)
- ✓ The Sampling Aspect of Uncertainty Quantification [00569.PDF](#)
- ✓ Two-Level Minimum Aberration Designs Under a Conditional Model with a Pair of Conditional and Conditioning Factors [00305.pdf](#)

Session 214 12Q. Recent Advances on Random Processes and Related Problems

- ✓ Cycle symmetry, limit theorems, and fluctuation theorems for diffusion processes on the circle [00619.pdf](#)
- ✓ Finite horizon continuous-time Markov decision processes with mean and variance criteria [00762.PDF](#)
- ✓ On Hermitian matrices diffusion and Dyson Brownian motion with general potential [00808.PDF](#)
- ✓ Biased Random Walks on Groups and Graphs [00929.PDF](#)