

List of Sessions

Wednesday, July 17, 2013

7 - 9pm

Pecan Galleria

Reception

Thursday, July 18, 2013

7 - 8am

Banquet Area

Breakfast

8 - 8:30am

Masters Hall

Opening Remarks

8:30 - 9:45am

Masters Hall Plenary Session 1

Sequential Hypothesis Tests: Historical Overview and Recent Results

9:45 - 10:15am

Pecan Galleria

Refreshment break

10:15 - 11:45am

Room TU ThuAM-InvPapSess 1

Adaptive Designs in Clinical Trials

Room VW ThuAM-InvPapSess 2

Change Detection in Time Series

Room YZ ThuAM-InvPapSess 3

Multiple Comparisons in Sequential Experiments

11:45am - 1:15pm

Banquet Area

Lunch

1:15 - 2:45pm

Room TU ThuPM-InvPapSess 1

Design of experiments

Room VW ThuPM-InvPapSess 2

Applications of Change-Point Detection

Room YZ ThuPM-InvPapSess 3

Sequential Methods in the Hands of Young Researchers I

2:45 - 3:15pm

Concourse

Refreshment break

3:15 - 4:45pm

Room VW ThuPM-InvPapSess 4

Optimal Stopping and Sequential Statistics

Room YZ ThuPM-InvPapSess 5

Recent Advances in Sequential Methodologies with Applications - I

Friday, July 19, 2013

7 - 8:30am

Banquet Area

Breakfast

8:30 - 9:45am

Masters Hall Plenary Session 2

Exact Distributions of Stopping Times in Two-Stage and Sequential Sampling

9:45 - 10:15am

Pecan Galleria

Refreshment break

10:15 - 11:45am

Room TU FriAM-InvPapSess 1

Room VW FriAM-InvPapSess 2

Room YZ FriAM-InvPapSess 3

Change Detection in Functional Sequences - I

Sequential Estimation for Dependent Data - I

Sequential Methodologies and High-Dimensional Data Analysis

11:45am - 1:15pm

Banquet Area

Lunch

1:15 - 2:45pm

Room TU FriPM-InvPapSess 1

Room VW FriPM-InvPapSess 2

Room YZ FriPM-InvPapSess 3

Recent Advances in Sequential Methodologies with Applications - II

Recent Results in Sequential analysis and Change-Point Analysis

Methodologies for High-Dimensional Data Analysis - I

2:45 - 3:15pm

Concourse

Refreshment break

3:15 - 4:45pm

Room TU FriPM-InvPapSess 4

Room VW FriPM-InvPapSess 5

Sequential Methods in the Hands of Young Researchers - II

Sequential Change Point Detection

7 - 10pm

Banquet Area

Banquet

Fourth International Workshop in Sequential Methodologies

Program Schedule

Invited Sessions and Speakers

Thursday, July 18, 2013, 8:00am - 8:30am

Opening Ceremony

Thursday, July 18, 2013, 8:30am - 9:45am

Plenary Lecture 1

Chair: T. N. Sriram, University of Georgia-Athens, USA

Alexander Tartakovsky, University of Southern California, USA: *Sequential Hypothesis Tests: Historical Overview and Recent Results*

Thursday, July 18, 2013, 10:15am - 11:45am

ThuAM-InvPapSess 1: Adaptive Designs in Clinical Trials

Organizer: William F. Rosenberger, George Mason University, USA

Chair: Anastasia Ivanova, University of North Carolina, USA

Qing Liu, Janssen Pharmaceuticals, USA: *Fisherian Evidential Approach to Sequential Clinical Trials*

Vladimir Dragalin, AptivSolutions, USA: *Adaptive Clinical Trials with Population Enrichment Design*

Alex Sverdlov, Novartis, USA: *Novel Response-Adaptive Designs for Clinical Trials with Time-to-Event Outcomes*

ThuAM-InvPapSess 2: Change Detection in Time Series

Organizers: Edit Gombay and Abdulkadir Hussein, University of Alberta, Canada

Chair: Ansgar Steland, RWTH Aachen University, Germany

Steve Coad, Queen Mary, University of London, UK: *Estimation of Parameters of the Absolute Autoregressive Model*

Abdulkadir Hussein, University of Windsor, Canada: *Issues and Remedies in Surveillance of Binary Outcomes*

Edit Gombay, University of Alberta, Canada: *Change Detection for Binary Time Series*

ThuAM-InvPapSess 3: Multiple Comparisons in Sequential Experiments

Organizer: Michael Baron, University of Texas at Dallas, USA

Chair: Michael Baron, University of Texas at Dallas, USA

Venugopal V. Veeravalli, University of Illinois at Urbana-Champaign, USA: *Controlled Sensing for Multihypothesis Testing*

Shyamal K. De, Binghamton University, New York, USA: *Sequential Multiple Testing Controlling Generalized Error Rates*

Kartlos Kachiashvili, Georgian Technical University, Republic of Georgia: *Sequential Analysis methods of Bayesian Type for Testing Hypotheses*

Thursday, July 18, 2013, 1:15pm - 2:45pm

ThuPM-InvPapSess 1: Design of experiments

Organizers: Yajun Mei and Abhyuday Mandal, Georgia Institute of Technology & University of Georgia, USA

Chair: Yajun Mei, Georgia Institute of Technology, USA

Xin Wang & Richard W. Lu, Georgia Institute of Technology, USA: *Layers of Experiments with Adaptive Combined Design*

Abhyuday Mandal, University of Georgia, USA: *Optimal Designs for Two-Level Factorial Experiments with Binary Response*

Ying Hung & Huijuan Li, Rutgers University, USA: *Adaptive Latin Hypercube Designs for Computer Experiments*

ThuPM-InvPapSess 2: Applications of Change-Point Detection

Organizer: Cheng-Der Fuh, National Central University, Taiwan

Chair: Vasanthan Raghavan, University of Southern California, USA

Robert Lund, Clemson University, USA: *Multiple Change Point Detection*

Yao Xie, Duke University & Georgia Institute of Technology, USA: *Detecting Change-Point in Signal Correlation*

Yuan Wang, Georgia Institute of Technology, USA: *Efficient Sequential Monitoring of Multiple Data Streams via Shrinkage*

ThuPM-InvPapSess 3: Sequential Methods in the Hands of Young Researchers - I

Organizer: Nitis Mukhopadhyay, University of Connecticut-Storrs, USA

Chair: Nitis Mukhopadhyay, University of Connecticut-Storrs, USA

Kazuyoshi Yata, University of Tsukuba, Ibaraki, Japan: *Asymptotic Normality for Inference on Multi-Sample, High-Dimensional Mean Vectors under Mild Conditions*

Bhargab Chattopadhyay, University of Texas-Dallas, Texas, USA: *Two-Stage Fixed-Width Confidence Interval of Nonparametric Regression parameters Using Nadaraya-Watson Estimator*

Bruno Buonaguidi, Bocconi University, Milan, Italy: *Recent Developments on Sequential Testing for Levy Processes*

Thursday, July 18, 2013, 3:15pm - 4:45pm

ThuPM-InvPapSess 4: Optimal Stopping and Sequential Statistics

Organizer: Albrecht Irle, University of Kiel, Germany

Chair: Alexander Tartakovsky, University of Southern California, USA

Sören Christensen, University of Kiel, Germany: *Representations of Excessive Functions and Their Application to Optimal Stopping Problems*

Hans Rudolf Lerche, University of Freiburg, Germany: *Overshoot and Optimality in Sequential Testing*

Alex Novikov, University of Technology Sydney, Australia: *Bayesian Sequential Estimation of a Drift of Fractional Brownian Motion*

ThuPM-InvPapSess 5: Recent Advances in Sequential Methodologies with Applications - I

Organizer: Tumulesh K. S. Solanky, University of New Orleans, Louisiana, USA

Chair: Elena M. Buzaiianu, University of North Florida, USA

Hokwon Cho, University of Nevada, Las Vegas, USA: *Statistical Inference of a Measure of Reduction for Two Binomial Variates*

Elena M. Buzaiianu, University of North Florida, USA: *A Two-Stage Selection and Testing Procedure for Comparing Several Treatments with a Control*

Joshua McDonald & David Goldsman, Georgia Institute of Technology, USA: *Conditional Probability of Correct Selection after Procedure Termination*

Friday, July 19, 2013, 8:30am - 9:45am

Plenary Lecture 2

Chair: Hans Rudolf Lerche, University of Freiburg, Germany

Shelemyahu Zacks, SUNY Binghamton, New York, USA: *Exact Distributions of Stopping Times in Two-Stage and Sequential Sampling*

Friday, July 19, 2013, 10:15am - 11:45am

FriAM-InvPapSess 1: Change Detection in Functional Sequences - I

Organizer: Eric Chicken, Florida State University, USA

Chair: Alex Novikov, University of Technology Sydney, Australia

Peihua Qiu, University of Florida, USA: *Some Recent Research On Nonparametric Profile Monitoring*

Vasanthan Raghavan, University of Southern California, USA: *Multi-Sensor Change Detection with Change Propagation*

FriAM-InvPapSess 2: Sequential Estimation for Dependent Data - I

Organizers: Leonid Galtchouk, University of Strasbourg, France & S. Pergamenchtkhikov, University of Rouen, France

Chair: Igor Nikiforov, Universit de Technologie de Troyes, France

Ouerdia Arkoun, University of Rouen, France: *Sequential Robust Efficient Adaptive Estimation for Nonparametric Autoregressive Models*

Serguei Pergamenchtkhikov, University of Rouen, France: *Minimax Sequential Kernel Estimators for Nonparametric Diffusion Processes*

Yaser Samadi, University of Georgia, USA: *Sequential Fixed-Width Confidence Interval Based on Bhattacharyya-Hellinger Distance: The Nonparametric Case*

FriAM-InvPapSess 3: Sequential Methodologies and High-Dimensional Data Analysis

Organizer: T. N. Sriram, University of Georgia, USA

Chair: Wenbo Wu, University of Georgia, USA

Moshe Pollak, The Hebrew University of Jerusalem, Israel: *On Reaching Nirvana (a.k.a. Steady State)*

Yu Liu, University of New Orleans, USA: *Performance Analysis of Sequential Probability Ratio Test*

Umashanger Thayasivam, Rowan University, USA: *Unsupervised Anomaly Detection for High Dimensional Data*

Friday, July 19, 2013, 1:15pm - 2:45pm

FriPM-InvPapSess 1: Recent Advances in Sequential Methodologies with Applications - II

Organizer: Tumulesh K. S. Solanky, University of New Orleans, USA

Chair: Tumulesh K. S. Solanky, University of New Orleans, USA

Tumulesh K. S. Solanky, University of New Orleans, USA: *A Note on Partitioning Exponential Populations*

Nitis Mukhopadhyay, University of Connecticut-Storrs, USA: *On Determination of an Appropriate Pilot Sample Size*

Tung-Lung Wu, University of Connecticut-Storrs, USA: *A Sequential Procedure for Multiple Window Scan Statistics*

FriPM-InvPapSess 2: Recent Results in Sequential analysis and Change-Point Analysis

Organizers: Shelly Zacks & Aleksey Polunchenko, Binghamton University, USA

Chair: Sören Christensen, University of Kiel, Germany

Marlo Brown, Niagara University, USA: *Detection of Changes of Multiple Poisson Processes Monitored at Discrete Time Points Where the Arrival Rates Are Unknown*

Wenyu Du, Binghamton University, USA: *An Accurate Method to Study the Shiryaev-Roberts Detection Procedure's Run-Length Distribution*

Yifan Xu, Binghamton University, USA: *First Crossing Times of Compound Poisson Processes with Two Linear Boundaries - Applications in SPRT and Queuing*

FriPM-InvPapSess 3: Methodologies for High-Dimensional Data Analysis - I

Organizer: T. N. Sriram, University of Georgia, USA

Chair: Makoto Aoshima, Institute of Mathematics, University of Tsukuba, Japan

Haileab Hilafu, University of Georgia, USA: *Sequential Sufficient Dimension Reduction for Large p Small n Problems*

Wenbo Wu, University of Georgia, USA: *Stable Estimation in Dimension Reduction by Sub-Sampling with Random Weights*

Wenhui Sheng, University of Georgia, USA: *Sufficient Dimension Reduction Via Distance Covariance*

Friday, July 19, 2013, 3:15pm - 4:45pm

FriPM-InvPapSess 4: Sequential Methods in the Hands of Young Researchers - II

Organizer: Nitis Mukhopadhyay, University of Connecticut-Storrs, USA

Chair: Debanjan Bhattacharjee, Utah Valley University, Orem, Utah

Aleksey Polunchenko, Binghamton University, USA: *A Bird's View on Computational Quickest Change-Point Detection*

Sankha Muthu Poruthotage, University of Connecticut-Storrs, USA: *Multiple Crossing Sequential Fixed-Size Confidence Region Methodologies for Normal Mean Vector*

Swarnali Banerjee, University of Connecticut-Storrs, USA: *Sequential Negative Binomial Problems with Applications in Statistical Ecology*

FriPM-InvPapSess 5: Sequential Change Point Detection

Organizer: Igor Nikiforov, Universit de Technologie de Troyes, France

Chair: Edit Gombay, University of Alberta, Canada

Boris Darkhovsky, Russian Academy of Sciences & **Alexandra Piryatinska**, San Francisco State University, USA: *Quickest Detection Via α -Complexity of Continuous Functions*

Yasin Yilmaz, Columbia University, USA & **George V. Moustakides**, University of Patras, Greece: *Sequential Joint Detection and Estimation*

Michael Baron, Univ. Texas at Dallas, USA: *Change-Point Detection in Multiple Channels*

Saturday, July 20, 2013, 8:30am - 9:45am

Plenary Lecture 3

Chair: Serguei Pergamenchikov, University of Rouen, France

Makoto Aoshima, Institute of Mathematics, University of Tsukuba, Japan: *Effective Methodologies for High-Dimensional Data*

Saturday, July 20, 2013, 10:15am - 11:45am

SatAM-InvPapSess 1: Applications of Sequential Analysis

Organizer: Steve Coad, Queen Mary, University of London, UK

Chair: Vladimir Dragalin, AptivSolutions, USA

Robert Keener, University of Michigan, USA: *The Modified Keifer-Weiss Problem, Revisited*

Anastasia Ivanova, University of North Carolina, USA: *Treatment Selection with the Sequential Parallel Comparison Design*

Chih-Chi Hu, Columbia University, USA: *On the Efficiency of Nonparametric Variance Estimation in Sequential Dose-Finding*

SatAM-InvPapSess 2: Change Detection in Functional Sequences - II

Organizer: Eric Chicken, Florida State University, USA

Chair: Shelemyahu Zacks, SUNY Binghamton, New York, USA

Eric Chicken, Florida State University, USA: *Change Points in Nonstationary Density Estimation*

Shing Chang, Kansas State University, USA: *Real-Time Detection of Wave Profile Changes*

Kamran Paynabar, Georgia Institute of Technology, USA: *Process Monitoring and Fault Diagnosis Using Multichannel Profiles*

SatAM-InvPapSess 3: Sensor Exploitation

Organizers: Mark Koch, Sandia National Laboratories, USA

Chair: Marlo Brown, Niagara University, USA

Annabel Prause, RWTH Aachen University, Germany: *Sequential Detection of Three Dimensional Signals under Dependent Noise*

Igor Nikiforov, Universit de Technologie de Troyes, France: *Sequential detection of transient changes*

Qian Xie, Florida State University, USA: *Metric-Based Multiple Image Registration*

Saturday, July 20, 2013, 1:15pm - 2:45pm

SatPM-InvPapSess 1: Recent Advances in Sequential Change Detection

Organizer & **Chair:** Georgios Fellouris, University of Southern California & University of Illinois at Urbana Champaign

George V. Moustakides, University of Patras, Greece: *Multiple Optimality Properties of the Shewhart Test*

Hongzhong Zhang, Columbia University, USA: *Robustness of the N-CUSUM Stopping Rule*

Grigory Sokolov, University of Southern California, USA: *Unstructured Sequential Change Detection in Sensor Networks*

SatPM-InvPapSess 2: Sequential Inference, Change-Point Detection and Clinical Trials

Organizer & **Chair:** Bhargab Chattopadhyay, University of Texas-Dallas, USA

Dong Xi, Northwestern University, Illinois, USA: *Allocating Recycled Significance Levels in Group Sequential Procedures for Multiple Endpoints*

Tian Zhao, University of Texas-Dallas, Texas, USA: *Multiple Testing in Group Sequential Clinical Trials*

Tiansong Wang, University of Texas-Dallas, Texas, USA: *Change-Point Detection with Multiple Sensors*

Sunday, July 21, 2013, 8:15am - 9:45am

SunAM-InvPapSess 1: Change Point Detection in Skew Distributions and Related Topics

Organizer: Wei Ning, Bowling Green State University, USA

Chair: George V. Moustakides, University of Patras, Greece

Wei Ning, Bowling Green State University, USA: *Information Approach for the Change Point Detection in the Skew Normal Distribution and Its Applications*

Abeer Hasan, Bowling Green State University, USA: *A Computational Based Methodology for the Change Point Problem Under the Non-central Skew t Distribution*

Haiyan Su, Montclair State University, USA: *Empirical Likelihood Inference for Two-sample Comparison with Censored Data*

SunAM-InvPapSess 2: Sequential Inference

Organizer & **Chair:** Venugopal V. Veeravalli, University of Illinois at Urbana-Champaign, USA

Georgios Fellouris, University of Southern California, USA: *Multichannel Sequential Hypothesis Testing*

Taposh Banerjee, University of Illinois Urbana-Champaign, USA: *Data-Efficient Quickest Change Detection*

Jun Geng & Lifeng Lai, Worcester Polytechnic Institute, USA: *Quickest Change Point Detection with Stochastic Energy Constraints*

Sunday, July 21, 2013, 10:15am - 12:00noon

Abraham Wald Prize Ceremony

Chair: Nitis Mukhopadhyay, University of Connecticut-Storrs, USA

10:15-10:45 am: Presentation of 2013 Abraham Wald Prize in Sequential Analysis

Plenary Lecture 4

Ansgar Steland, RWTH Aachen University, Germany: *Nonparametric Monitoring of Time Series*