

FINAL AGENDA

THIRTEENTH U.S. ARMY CONFERENCE ON APPLIED STATISTICS
A Conference of the Interface Foundation of North America

Rice University, Houston
17-19 October, 2007

Hosted by the Department of Statistics, Rice University

(EXCEPT WHERE NOTED, ALL EVENTS ARE SCHEDULED FOR DUNCAN HALL)

Monday, October 15

0800 - 0830 REGISTRATION (Duncan Hall)

0830 - 1100 TUTORIAL (McMurtry Auditorium)

"An Introduction to Network Analysis"
Stan Wasserman and Ann McCranie, Indiana University

1100 - 1200 LUNCH (Room 3092)

1200 - 1700 TUTORIAL (continued)

Tuesday, October 16

0830 - 1200 TUTORIAL (McMurtry Auditorium)

1830 - Social and Registration (Duncan Hall [Martel Hall/Lobby])

Wednesday, October 17

0800 - 0830 REGISTRATION (Duncan Hall)

0830 - 0845 CALL TO ORDER AND WELCOMING REMARKS (McMurtry Auditorium)

Barry Bodt, Conference Chair, U.S. Army Research Laboratory
Kathy Ensor, Department Chair, Rice University Department of Statistics
Sallie Keller-McNulty, Dean of Engineering, Rice University

0845 - 0930 GENERAL SESSION I: Keynote Address (McMurtry Auditorium)

Chair: Alyson Wilson, Los Alamos National Laboratory

Statistical Methods for Electronic Biosurveillance
Ron Fricker, Navel Postgraduate School

0930 - 0945 BREAK

0945 - 1115 SPECIAL SESSION I (McMurtry Auditorium)

“Statistics in Biodefense”

Organizer & Chair: Marek Kimmel, Rice University

Primum Non Nocere

James R. Thompson, Rice University

Computational Modeling of a Botulinum Neurotoxin: Biowarfare Defense

James Briggs, University of Houston

Statistical Models for Protein Structural Alignment: Applications in Drug Design and Biodefense

Viacheslav Fofanov, Rice University

1115 - 1130 BREAK

1130 - 1230 CONTRIBUTED SESSIONS I and II

CONTRIBUTED SESSION I (Room 3092)

Chair: David Cruess, Uniformed Services University of the Health Sciences

JFIT: A Fitting Tool for Johnson Probability Density Function Fitting to Data

Allan T. Mense, Raytheon Missile Systems

Jerry Alderman, Raytheon Missile Systems

A Multinomial-Dirichlet Model for Analysis of Competing Hypotheses

Kristin A. Duncan, San Diego State University

Jonathan Wilson, San Diego State University

CONTRIBUTED SESSION II (McMurtry Auditorium)

Chair: LTC Lee Dewald, Virginia Military Institute

Studies in Military Medicine from the Center for Data Analysis and Statistics (CDAS) at West Point

LTC Rodney X. Sturdivant, United States Military Academy

MAJ Krista Watts, United States Military Academy

Neonatal Mortality as Function of Secular Events: Flaws and Dangers of Present Methods of Statistical Analysis

Barbara P. Billauer, University of Maryland

1230 - 1330 LUNCH (Room 3092)

1330 - 1500 SPECIAL SESSION II (McMurtry Auditorium)

“Methods for the Analysis of Streaming Data”

Organizer & Chair: William Szewczyk, National Security Agency

Histogramming in the Streaming Environment

Arnaldo Horta, National Security Agency

Joseph McCloskey, National Security Agency

Cascaded Classifiers for Adaptive Stream Mining
Deepak Turaga, IBM Thomas J. Watson Research Center
Olivier Verscheure, IBM Thomas J. Watson Research Center

Smoothed Histograms on Irregular Meshes with Streaming Data
David W. Scott, Rice University

1500 - 1515 BREAK

1515 - 1615 CONTRIBUTED SESSIONS III and IV

CONTRIBUTED SESSION III (McMurtry Auditorium)
Chair: Arthur Fries, Institute for Defense Analyses

A Useful Combinatorial Identity
Bernard Harris, University of Wisconsin

Optimal Delayed Control of Stochastic Systems
Mou-Hsiung (Harry) Chang, US Army Research Office

CONTRIBUTED SESSION IV (Room 3092)
Chair: Nancy Dunn, U.S. Army Evaluation Center

Reliability Projections for a Stockpile with Potential to Degrade
Scott Vander Wiel, Los Alamos National Laboratory
Todd Graves, Los Alamos National Laboratory
Shane Reese, Brigham Young University
Alyson Wilson, Los Alamos National Laboratory

Performance Prediction Combining Environmental and Cultural Factors: Grid-Group Cma
Katie Grantham Lough, 21st Century Systems and University of Missouri-Rolla
Warren Noll, 21st Century Systems
Robert Woodley, 21st Century Systems
Dan Krus, University of Missouri-Rolla

1615 - 1630 BREAK

1630 - 1715 GENERAL SESSION II (McMurtry Auditorium)

Chair: LCDR Kyle Caudel, United State Naval Academy

The Complexity Matching Effect
Bruce West, US Army Research Office

1830 - 2100 WILKS AWARD BANQUET (Duncan Hall [Martel Hall/Lobby])

1830 - SOCIAL

1930 - DINNER

2015 - BANQUET ADDRESS

People of Army Statistics: Stories and Surprises
David (Chris) Arney, U.S. Army Research Office

2045 - WILKS AWARD PRESENTATION

Barry A. Bodt, U.S. Army Research Laboratory

Thursday, October 18

0830 - 0915 GENERAL SESSION III (McMurtry Auditorium)

Chair: Frank Samaniego, University of California, Davis

A Deeper Look into the Use of CBLA in Criminal Cases

Karen Kafadar, Indiana University Bloomington

Cliff Spiegelman, Texas A&M

0915 - 0930 BREAK

0930 - 1100 CONTRIBUTED SESSIONS V and VI

CONTRIBUTED SESSION V (McMurtry Auditorium)

Chair: Carl Russell, CTR Analytics

Determining Failure Probabilities by Density Estimation of a One Parameter Exponential Model

LCDR Kyle A Caudle, United States Naval Academy

On the Optimal Allocation of Components within Coherent Systems

D. Bhattacharya, Visva-Bharati University

Francisco J. Samaniego, University of California, Davis

Lloyd Failure Discounting and "Magical" Reliability Growth Models

Arthur Fries, Institute for Defense Analyses

CONTRIBUTED SESSION VI (Room 3092)

Chair: Doug Tang, Uniformed Services University of the Health Sciences

A Large Sample Confidence Interval for Variance

Douglas H. Frank, Indiana University of Pennsylvania.

Use of a Lumbar Support in Relieving and Preventing Lower Back Pain in Helicopter Crews

MAJ Krista Watts, United States Military Academy

LTC Rodney X. Sturdivant, United States Military Academy

LTC Nicholas Piantanida, M.D., Army Medical Department, West Point

CDT Geoffrey Phillips, United States Military Academy

Shoulder Dislocation in Active Duty U.S. Military Personnel

LTC Robert E. Burks, United States Military Academy

MAJ Krista Watts, United States Military Academy

LTC Rodney X. Sturdivant, United States Military Academy

1100 - 1115 BREAK

1115 - 1200 GENERAL SESSION IV (McMurtry Auditorium)

Chair: David Webb, US Army Research Laboratory

Generalized Confidence Intervals for Some Bivariate Normal Problems

Thomas Mathew, University of Maryland Baltimore County

1200 - 1315 LUNCH (NOTE – HERTZSTEIN HALL)

Statistics, Rice & the DoD

Kathy Ensor, Rice University

1315 - 1445 SPECIAL SESSION III (McMurtry Auditorium)

“Event Pattern Recognition for Counter-Terrorism”

Organizer & Chair: Harry Chang, U.S. Army Research Office

Probabilistic Framework for Detecting and Tracking Hostile Intentions in the Hats World

Paul Cohen, USC Information Sciences Institute

Aram Galstyan, USC Information Sciences Institute

Speed-up of Nonlinear Filters: New Approaches

Boris Rozovskii, Brown University

Decentralized Quickest Change Detection in Distributed Sensor Systems with Applications to Information Assurance and Counter Terrorism

Alexander Tartakovsky, University of Southern California

1445 - 1500 BREAK

1500 - 1630 CONTRIBUTED SESSIONS VII and VIII

CONTRIBUTED SESSION VII (Room 3092)

Chair: David Scott, Rice University

Semiparametric Sequential Optimal Designs for Generalized Linear Models

Joseph D. Warfield, Univ. of Maryland Baltimore County & Johns Hopkins Applied Physics Laboratory

Anindya Roy, University of Maryland Baltimore County

Variability Analysis for Design of Complex Systems

William Thomas, Raytheon Missile Systems

The Search for Spatial and Spatio-Temporal Anomalies

Michael D. Porter, North Carolina State University

CONTRIBUTED SESSION VIII (McMurtry Auditorium)

Chair: Chris Arney, U.S. Army Research Office

Simple Robust Strategies for Portfolio Design

James R. Thompson, Rice University

L. Scott Baggett, Rice University

Regression and Variable Selection in Large p , Small n Problems
Wei-Yin Loh, University of Wisconsin, Madison

Anti-American Attitudes in the Islamic World: An Analysis Using CART Models
Giacomo Chiozza, University of California, Berkeley

Friday, October 19

0830 - 0915 GENERAL SESSION V (McMurtry Auditorium)

Chair: Jacqueline Telford, Johns Hopkins Applied Physics Laboratory

What is Manifold Learning?
Mike Trosset, Indiana University

0915 - 0930 Break

0930 – 1000 CONTRIBUTED SESSION IX (McMurtry Auditorium)

Chair: MAJ Kristen Watts, United States Military Academy

Assessment of Risk Associated with Safe Operations of Unmanned Ground Systems
Barry A. Bodt, U.S. Army Research Laboratory

1000- 1015 Break

1015 - 1100 GENERAL SESSION VI (McMurtry Auditorium)

Chair: Barry A. Bodt, U.S. Army Research Laboratory

Heavy Traffic Analysis of Controlled Queuing Networks
Amarjit Budhiraja, University of North Carolina

1100 - ADJOURNMENT