FINAL AGENDA

Fifteenth Army Conference on Applied Statistics

Arizona State University

21-23 October 2009

Hosted by ASU and Sponsored by the Interface
Cooperating Organizations: Raytheon, ARO

Monday, October 19

0800 – 0830 Registration (MU 228 Cochise)
0830 – 1200 Tutorial

      Categorical Data Analysis
      Brian Marx, Louisiana State University

1200 – 1300 Lunch
1300 – 1600 Tutorial

Tuesday, October 20

0830 – 1200 Tutorial (MU 085 Union Stage)

      Categorical Data Analysis
      Brian Marx, Louisiana State University

1200 – 1300 Lunch
1300 – 1600 Tutorial

1830 – Social and Registration (MU 201A Starlight Terrace)

Wednesday, October 21

0745 – 0815 Registration (MU 220 Turquoise)

0815 – 0830 Call to Order (MU 230 Pima)

    Barry Bodt, Conference Chair, U.S. Army Research Laboratory

    Welcome:

    Douglas C. Montgomery, Professor of Industrial & Management Systems
    Engineering, Arizona State University

Wednesday, October 21 (*continued*)

0830 – 0915 General Session I (Keynote Address) (MU 230 Pima)

    Chair: Karen Kafadar, Indiana University

    Combinatorial Stochastic Processes and Bayesian Nonparametrics
    Michael Jordan, UC Berkeley

0915 – 0930 Break

0930 – 1100 Special Session I (Text and Data Mining with Applications) (MU 230 Pima)

    Organizers: Edward J. Wegman and Yasmin Said, George Mason University
    Chair: Edward J. Wegman, George Mason University

    Text Data Mining for Better Understanding of the Science and Technology Landscape
    Jeffrey L. Solka, Nick Tucey* and Avory Bryant, Naval Surface Warfare Center

    Feature Selection for Complex Systems
    George Runger, Arizona State University and Eugene Tuv, Intel Corporation

    Approaches to Text Mining that Preserve Semantic Content
    Yasmin Said, George Mason University

1100 – 1115 Break

1115 – 1215 Contributed Session I (*Parallel Session)* (MU 220 Turquoise)

    Chair: Francisco J. Samaniego, UC Davis

    Graph Theoretical Methods for Cluster Verification
    Bernard Harris, University of Wisconsin-Madison

    Image Fusion and the Method of Paired Comparisons: Experiments, Evaluation, and Open Questions
    Murray Loew, George Washington University, & James Bonick and Clarence Walters, U.S. Army Night Vision and Electronic Sensors Directorate, Ft. Belvoir

1115 – 1215 Contributed Session II (*Parallel Session*) (MU 230 Pima)

    Chair: Wei-Yin Loh, University of Wisconsin-Madison

    Comparison of Prediction Accuracy of Surrogate Models Developed Using Nested Latin Hypercube Designs - "How Many Simulation Experiments Do I Need to Run?"
    Tom Donnelly, SAS Institute Inc.

Wednesday, October 21 (*continued*)

Regression-Based Inverse Distance Weighting with Applications to Computer Experiments
V. Roshan Joseph and Lulu Kang (presenter), Georgia Institute of Tech.

1215 – 1315 Lunch

1315 – 1445 Special Session II (Army Challenges for Statistics) (MU 230 Pima)

Organizers: COL Andrew Glen and COL Rodney Sturdivant, United States Military Academy
Chair: COL Rodney Sturdivant, United States Military Academy

An Accumulate-toward-the-Mode Approach to Confidence Intervals and Hypothesis Tests and an Application to Binomially Distributed Data
Dwayne Nuzman, U.S. Army Materiel Systems Analysis Activity

Confidence Interval Methodology for Ratio Means (CIM4RM)
John Nierwinski, Jr., U.S. Army Materiel Systems Analysis Activity

Periodic Spatio-Temporal Improvised Explosive Device Attack Pattern Analysis
MAJ Matthew Benigni, United States Military Academy and Reinhard Furrer, Colorado School of Mines

1445 – 1500 Break

1500 – 1630 Contributed Session III (*Parallel Session*) (MU 220 Turquoise)

Chair: Art Fries, Institute for Defense Analyses

The Joint Signature of Systems with Shared Components
Francisco J. Samaniego, UC Davis

Overview of Modeling and Analyzing Complex System Reliability Using the Los Alamos Developed Software Tool, SRFYDO
Christine M. Anderson-Cook, Los Alamos National Laboratory

Bayesian Reliability Analysis: The Concept of Borrowing Power
David King, Charles A. Pace, and Allan T. Mense (Raytheon Missile Systems), Gary Glover and Benny Phillips (Tinker Air Force Base)

Bayesian Reliability Analysis: A Tool for the Analyst
Allan T. Mense, David King, and Charles A. Pace (Raytheon Missile Systems), Benny Phillips and Garry Glover (Tinker Air Force Base)

Wednesday, October 21 (*continued*)

1500 – 1630 Contributed Session IV (*Parallel Session*) (MU 230 Pima)

Chair: Lee Dewald, Virginia Military Institute

An Approach to Corroborating the Impact of Recruit Quality and Recruiting Mission on Resource Requirements
Robert Clemence, Jeremy Heusner, Robert Love, Raissa Nourieva, and Meredith Sachs, Booz Allen Hamilton, Inc.

Assessing Management and Statistical Risks in the OCONUS Immersion Experiment with Variations of Cohen's d (effect size) as a Tool for Decision-making
Raymond T. Mirikitani, Defense Language Institute

Mine Clearing Efficiency Analysis
Rebecca E. Wentz, U.S. Army Materiel Systems Analysis Activity

1830 -- 2100 Wilks Award Banquet (MU 241A Ventana)

1830 – Social
1930 – Dinner
2015 – Banquet Address
    Sarah Braden, ASU, School of Earth and Space Exploration
2045 – Wilks Award

Thursday, October 22

0830 – 0915 General Session II (MU 220 Turquoise)

Chair: COL Andrew Glen

Graphical Data Explorations of Very Large Databases: the ASA Data Expo 2009
Heike Hofmann, Iowa State University

0915 – 0930 Break

0930 – 1100 Contributed V (*Parallel Session*) (MU 220 Turquoise)

Chair: Allan Mense, Raytheon Missile Systems

Robust Estimation of Mixtures of Heavy-tailed Distributions
A. M. Santos, IBM and UC-Denver and Karen Kafadar, Indiana University

Information Exchange Between Complex Networks
Bruce J. West, U.S. Army Research Office

Optimizing Computer Networks for Robustness and Efficiency
Edward J. Wegman (George Mason), Hadi Rezazad (Orchidtech Technology and Management), and Roger W. Shores (U.S. Census Bureau)

0930 – 1100 Contributed VI (*Parallel Session*) (MU 202 Alumni Lounge)

Chair: Paul Deason, TRAC-WSMR (retired)

Stochastic Modeling and Applications
G.S. Ladde and Ling Wu, University of South Florida

A Probabilistic Approach to Extracting Symbols from Blueprints
Richard Warren and Robert S. Woodley, Century Systems, Inc.

A Control-Stopping Differential Game for Stochastic Systems with Memory
Mou-Hsiung (Harry) Chang, U.S. Army Research Office

1100 – 1115 Break

1115 – 1215 Contributed VII (*Parallel Session*) (MU 220 Turquoise)

Chair: Tom Donnelly, SAS Institute Inc.

Statistical Issues in the Comparison of Multi-dimensional Profiles
Karen Kafadar, Indiana University

Conditional Logistic Modeling for Unbalanced Nested Case Control Studies with Bias Correction
Yuanzhang Li, David Cowan, Natalya Weber, and David Niebuhr, Walter Reed Army Institute of Research, and Robert Yolken Johns Hopkins University

1115 – 1215 Contributed VIII (*Parallel Session*) (MU 202 Alumni Lounge)

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

General Orthogonal Solutions in Multivariate Regression
Jerry Alderman and William C. Thomas, Raytheon Missile Systems

Variable Selection in Nonparametric Regression with Very Many Noise Variables
Wei-Yin Loh, University of Wisconsin-Madison

1215 – 1315 Lunch

1315 – 1415 Contributed IX (*Parallel Session*) (MU 220 Turquoise)

Chair: Charles White, Walter Reed Army Institute of Research

Power Electronics System Compatibility Assessment using Statistical Design Methods
Sydney Lofton and William C. Thomas, Raytheon Missile Systems

A Computer-Aided D-Optimal Design for Improving Ballistic Performance
David W. Webb and Brian M. Powers, U.S. Army Research Laboratory

1315 – 1415 Contributed X (*Parallel Session*) (MU 202 Alumni Lounge)

Chair: Mou-Hsiung (Harry) Chang, U.S. Army Research Office

Length Bias in the Measurements of Carbon Nanotubes
Paul Kvam, Georgia Tech

Laser Scanner Certification Study for Body Armor Back Face Deformation Measurement
Barbara J. Gillich, W. Scott Walton, Craig Miser, Adam Fournier, Jeffrey Hosto, Jeffrey Huber, Ward Boughers, and Craig Andres, Aberdeen Test Center

1415 – 1430 Break

1430 – 1600 Special Session III (MU 220 Turquoise)

Organizers: Edward J. Wegman and Yasmin Said, George Mason University
Chair: Yasmin Said, George Mason University

Beyond Correlation: Examining Causality with Agent-based Hypothesis Instantiation
Gary An, MD, Northwestern University

Measures of Tipping Points, Robustness, and Path Dependence
Aaron Bramson, University of Michigan

Combining ABM and Behavioral Experiments
Marco Janssen, Arizona State University

Friday, October 23

0830 – 0915 General Session III (MU 230 Pima)

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

Modern Experimental Design Methods
Douglas C. Montgomery, Arizona State University

0915 – 0930 Break

0930 – 1030 Contributed Session XI (MU 230 Pima)

Chair: David Webb, U.S. Army Research Laboratory

Predicting Linguists' Training Outcomes with Linear Regression Models Constructed Using a Single and Double Cross-validation Design
Raymond T. Mirikitani, Defense Language Institute

Oh Say Can You GEE: Analysis of Visual Acuity Data
Robyn Lee, Brian Hatch, David Hilber, James Elledge, and James Stout , US Army Center for Health Promotion and Preventive Medicine

1030 – 1045 Break

1045 – 1130 General Session IV (MU 230 Pima)

Chair: Robyn Lee, Center for Health Promotion and Preventive Medicine

Spinning Heads and Spinning News: the Use and Abuse of Statistics in the Media
Rebecca Goldin, George Mason University

1130 Adjourn