

Program

Conference on Applied Statistics in Defense

October 26-28, 2016

Bureau of Labor Statistics, Washington, DC

Sponsored by Interface Foundation of North America, Inc.

Monday, October 24

9:00am – 4:30pm SHORT COURSE (Day One)

An Introduction to R and Data Visualization

Abel Rodriguez, University of California, Santa Cruz

Tuesday, October 25

9:00am – 4:30pm SHORT COURSE (Day Two)

Wednesday, October 26

8:30am Registration

8:45am Welcome and Announcements

9:00am – 10:00am GENERAL SESSION

Statistical and Data Literacy in the Era of Big Data (Keynote)

Kirk Borne, Booz Allen Hamilton

10:00am – 10:15am Break

10:15am – 11:55am

TUTORIAL

Software Testing

Rick Kuhn, NIST

CONTRIBUTED SESSION 1

Many Transformations, 400 New Distributions

A. Glen, S. Butler, and N. Mankovich, Colorado College

Test Design Adequacy for Logistic Regression
K. Ferguson and S. Hunter, Dugway Proving Grounds

Group-wise and Regional Terrorism Trends via Clustering in the Model Space
V. Raghavan, Qualcomm Flarion Technologies

An Assessment of Energy Efficient Planning
C. Lennon, M. Childers, M. Harper, C. Ordonez, N. Gupta, J. Pace, R. Kopinsky, A. Sharma, E. Collins, and J. Clark, US Army Research Laboratory and Florida A&M University-Florida State University

11:45am – 1:15pm Lunch (on your own)

1:15pm – 2:15pm GENERAL SESSION

Bayesian Spatial Model Selection for Detection and Identification in Chemical Plumes Based on Hyperspectral Imagery Data
Abel Rodriguez, University of California, Santa Cruz

2:15pm – 2:30pm Break

2:30pm – 4:00pm

TUTORIAL

Introduction to Survey Research
Heather Wojton, Institute for Defense Analyses

SPECIAL SESSION ON QUANTITATIVE METHODS IN INTELLIGENCE

Activity-Based Intelligence and Pattern-of-Life Analysis
Pat Biltgen, Vencore

Data Science for Threat Finance Intelligence
I. Kloo, Center for Army Analysis

6:30pm CONFERENCE BANQUET, Clyde's at Gallery Place

Thursday, October 27

8:30am Registration

8:45am Welcome and Announcements

9:00am – 10:00am GENERAL SESSION

Data Farming: Reaping Insights from Large-Scale Simulation Experiments
Susan Sanchez, Naval Postgraduate School

10:00am – 10:15am Break

10:15am – 11:45am

TUTORIAL

Adversarial Risk Analysis
David Banks, Duke University

CONTRIBUTED SESSION 2

Uncertainty Quantification of Armament Engineering Models and Simulations
D. Ray and M. Jablonski, US Army ARDEC

Leveraging Data Across Operational Test Unit Variants to Assess Reliability
S. Brady, P. Ellner, and M. Wayne, Army Materiel Systems Analysis Activity

Software Failure and Reliability Assessment Tool (SFRAT): An Open Source Application for the Practitioner and Research Community
V. Nagaraju, T. Wandji, and L. Fiondella. University of Massachusetts, Dartmouth and Naval Air Systems Command, Patuxent River

11:45am – 1:15pm Lunch (on your own)

1:15pm – 2:15pm GENERAL SESSION

Cyberlanguage: Enhancing Cybersecurity through Statistical and Natural Language Processing Techniques

Joseph A. Marr, Bartley D. Richardson, David B. Krisiloff, Benjamin J. Radford, and Christopher M. Morris. DZYNE Technologies (Marr), Sotera Defense Solutions. Room 7/8

2:15pm – 2:30pm Break

2:30pm – 4:00pm

TUTORIAL

Resampling Methods
Dave Ruth, US Naval Academy

SPECIAL SESSION ON COMPUTER EXPERIMENTS

The DASE Axioms: Designing Simulation Experiments for Verifying Performance of Software-Intensive Systems

T. Hurst, I. Goodrich, C. Leigh, C. Pouchet, M. Tolman, M. Wynn, and J. Zink, Raytheon Missile Systems

Design for Large-scale Statistical Computation and Distributed Computer Experiments

Peter Qian, University of Wisconsin-Madison

4:00pm – 5:15pm

CONTRIBUTED SESSION 3: SENSITIVITY TESTING AND DOE FOR BINARY RESPONSE

DoD Applications of Sensitivity Testing and DOE for Binary Response

D. Ray, C. Drake, and P. Roediger, US Army ARDEC, UTRS, Inc.

A new sensitivity testing procedure when there are two stress variables

C. F. Jeff Wu, Georgia Tech.

CONTRIBUTED SESSION 4

Fast Patchwork Bootstrap for Quantifying Estimation Uncertainties in Sparse Random Network

Y. Gel, V. Lyubchich, and L. Ramirez, University of Texas at Dallas and University of Maryland Center for Environmental Sciences

Cyclic Stochastic Approximation for Multiagent Stochastic Optimization

K. Hernandez and J. Spall, Johns Hopkins University and JHU Applied Physics Laboratory

Friday, October 28

8:45am Welcome and Announcements

9:00am – 10:00am GENERAL SESSION

Estimating Network Degree Distributions from Sampled Networks: An Inverse Problem

Eric Kolaczyk, Boston University

10:00am – 10:15am Break

10:15am – 11:45am TUTORIAL

Bayesian Analysis

Kassie Fronczyk, Institute for Defense Analyses

11:45am CONFERENCE CLOSING REMARKS