



Interface Foundation of North America, Inc.  
P.O. Box 7460  
Fairfax Station, VA 22039-7460

June 21, 2009

SUBJECT: Army Conference on Applied Statistics

Dear Colleague,

The Executive Board for the Army Conference on Applied Statistics (ACAS) is pleased to announce that Arizona State University in Tempe, AZ will host its 15th annual meeting from October 21-23, 2009. ACAS is a conference of the Interface Foundation of North America and leading forum for the presentation and discussion of theoretical and applied papers relating to the use of probability and statistics for solving defense- and security-related problems. Today's Department of Defense faces far-ranging challenges that include many topics to which probability and statistics can contribute. The development and advancement of defense systems draw upon varied techniques and tools such as reliability analysis, statistical computing, visual data mining, simulation, linear and stochastic modeling, data fusion, and experimental design. ACAS provides a constructive opportunity for interaction among academic, industry, and DoD scientists. It also serves a nurturing role in the elevation of statistical proficiency among DoD researchers in other disciplines who find themselves statistical practitioners because of the compelling benefits statistical science brings to DoD research, development, and testing.

ACAS attendees are welcome to attend a free short course taught by Professor Brian Marx of Louisiana State University on "Categorical Data Analysis" preceding the conference on October 19 & 20. This course will cover the analysis of contingency table data, i.e., tabular data in which the cell entries represent counts of subjects or items falling into certain categories. Initial topics will include chi-square tests for independence, exact testing methods, and the treatment of ordered data. Both 2- and 3-way tables will be covered. The course will move quickly into a contemporary modeling approach to categorical data analysis, which is motivated through special cases of the generalized linear model, specifically Poisson regression for count responses and logistic/probit regression for binomial responses. The focus will be on the interpretation of models rather than the theory behind them. After taking this course, students will know how to perform logistic regression (with both binomial and multinomial

responses), probit, logit and log-linear analysis using statistical software. Model diagnostics and interpretation of results are also covered, and longitudinal analysis is introduced.

The conference program will also consist of invited talks by prominent investigators in various branches of statistics and applied probability as well as contributed papers of a technical, applied, or clinical nature. To date, the following distinguished researchers have been confirmed for invited presentations: Michael Jordon (keynote, UC Berkeley), Douglas C. Montgomery (Arizona State), Leslie Clark (Armed Forces Health Surveillance), and Rebecca Goldin (George Mason).

This year's conference will feature three special sessions. Ed Wegman and Yasmin Said of George Mason University are organizing two sessions – "Agent-based Modeling and Simulation" and "Data Mining Applications". In addition, COL Andrew Glen and COL Rodney Sturdivant from the U.S. Military Academy are organizing a session which will focus on "Current Army Challenges in Statistics".

The technical sessions of the conference will also feature contributed papers by DoD scientists, and academic and industrial scientists, including investigators under contract to DoD. Contributed papers can range in content from new research to well-posed problems in which statistical methods are applied to solve specific DoD problems. Speakers are strongly encouraged to present their papers in terms of the potential or real problems that motivated the work. Results that rely on relatively recent or specialized results in the theory of statistics and probability should be explained in sufficient detail to permit an audience of statistical practitioners with broadly varying backgrounds to use the results to enhance their own problem-solving capabilities.

Clinical sessions, a distinct element of ACAS, accept unresolved problems in applied statistics. A panel of experts, comprised of invited speakers and other distinguished attendees offer guidance on how to proceed. Authors of a clinical paper must provide a brief description of the problem by September 21, 2009 in order that panelists have sufficient time to prepare their recommendations. We invite you to consider this opportunity to present an interesting statistical problem to some of the country's leading applied and mathematical statisticians.

Participation from many activities is sought to ensure a mixture of science and application. A call for papers is hereby extended. Speakers will be notified regarding paper acceptance no later than

September 11. It may become necessary to limit the number of papers, so a timely response is recommended. To submit a paper for consideration, please send the following information by September 7 to Barry A. Bodt, U.S. Army Research Laboratory, ATTN: RDRL-CII-C, Aberdeen Proving Ground, MD 21005-5067. (Electronic mail sent to [babodt@arl.army.mil](mailto:babodt@arl.army.mil) is preferred.)

1. Title of paper, and a short abstract.
2. Name of author(s) and exact title of the organization(s).
3. Type of paper (technical or clinical).
4. Equipment needed (digital projector, overhead projector, etc.).
5. Telephone number of the author(s) (DSN or commercial).
6. E-mail address of the author(s).

Technical papers are nominally allowed 30 minutes, to include 5 minutes at the end for audience discussion and questions. Of the 40 minutes available for clinical papers, approximately 15 minutes are recommended for the problem statement, allowing 25 minutes for panel discussion.

The Army Conference on Applied Statistics also marks the occasion when the Army Wilks Award is presented for significant contributions to the U.S. Army in statistical research or applications relevant to the Army. This year the Board is accepting open nominations for award candidates. Letters of nomination should include the nominee's vita relevant to Army service, and should be mailed by August 21, 2009 to Jock O. Grynovicki, U.S. Army Research Laboratory, ATTN: AMSRD-ARL-HR-MX, Aberdeen Proving Ground, MD 21005-5425.

This year's conference and short course will be held at sunny Tempe, Arizona, home to Arizona State University (ASU). One of the largest universities in the country, ASU combines academic excellence, entrepreneurial energy and broad access with fun-filled Sun Devil spirit. The ASU Tempe campus is a great destination for Broadway shows at ASU Gammage, free museums and galleries, exciting sporting events and public art. It is also adjacent to more of Tempe's most popular attractions. The red brick sidewalks of the Mill Avenue District are lined with unique shops, restaurants, taverns and theatres. Tempe Town Lake is an urban oasis, perfect for boating, jogging or picnicking. Papago Park gives visitors a taste of the scenic Sonoran Desert landscape with hiking and biking trails and attractions like The Phoenix Zoo. For more information about what to see and do in Tempe, visit [www.ExploreTempe.com](http://www.ExploreTempe.com) or call 800-283-6734.

A host letter providing more detailed information regarding registration fees, additional lodging, agenda, etc. will follow in September. After this mailing, information concerning the conference and tutorial will be made available at [www.armyconference.org](http://www.armyconference.org). This site will be periodically updated as details finalize. Any additional inquiries concerning the conference may be directed to Barry A. Bodt at the address noted previously, by phone (410-278-6659), or by fax (410-278-4988).

Sincerely,

David W. Webb  
 U.S. Army Research Laboratory  
 Aberdeen Proving Ground, MD

<b>Executive Board of the U.S. Army Conference on Applied Statistics</b>	
Barry A. Bodt (Chair) <i>U.S. Army Research Laboratory</i>	Harry Chang <i>U.S. Army Research Office</i>
David F. Cruess <i>Uniformed Services University of the Health Sciences</i>	Paul J. Deason <i>U.S. Army (retired)</i>
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COL Andrew G. Glen <i>United States Military Academy</i>	Jock O. Grynovicki <i>U.S. Army Research Laboratory</i>
Robyn B. Lee <i>U.S. Army Center for Health Promotion and Preventive Medicine</i>	Wendy L. Martinez <i>Joint Warfare Analysis Center</i>
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