



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

June 25, 2008

SUBJECT: Army Conference on Applied Statistics

Dear Colleague,

The Executive Board for the Army Conference on Applied Statistics (ACAS) is pleased to announce that the Virginia Military Institute in Lexington, VA will host its 14th annual meeting from October 22-24, 2008. 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 on "An Introduction to R" preceding the conference on October 20 & 21. Di Cook of Iowa State will present. R is an open-source, extensible integrated suite of software facilities for data manipulation, calculation and graphical display, similar to S. R provides a wide variety of statistical techniques including linear and nonlinear modeling, classical statistical tests, time-series analysis, classification, and clustering. Furthermore, it is known for the well-designed publication-quality plots, including mathematical symbols and formulae where needed, that can be produced with ease and under total user control. R is available as Free Software under the terms of the Free Software Foundation's GNU General Public License in source code form. It compiles and runs on a wide variety of UNIX platforms and similar systems (including FreeBSD and Linux), Windows and MacOS. Attendees will add a valuable tool to their professional skill set, as hands-on opportunities will allow them to experience many of the features and capabilities of the R language and environment.

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: Richard Smith (keynote, North Carolina), Andrew Glen (United States Military Academy), Carl Meyer (North Carolina State), Wendy Tam Cho (Illinois Urbana-Champaign), Dennis Cook (Minnesota), and Doug Wolfe (Ohio State).

This year's conference will feature three special sessions. The first, "Statistics and Stochastics for Network Science" is being organized by Harry Chang (Army Research Office), and will include talks on a sensor network for structural monitoring of the Golden Gate Bridge and energy-efficient sensor network for tracking multiple targets. In addition, David Banks (Duke) has arranged a special session entitled "Risk Analysis for the Military" which will feature presentations on multi-agency response to the London Tube bombings, an adversarial risk analysis system developed by the Department of Homeland Security, and fatal soft error rate estimation for DoD supercomputers. Wendy Martinez (JWAC) and Jeff Solka (NSWC) are organizing a session, "Mitigation of Technology Surprise", which will focus on literature-based discovery and cross-corpus topic analysis.

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 19, 2008 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 5. 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 August 29 to Barry A. Bodt, U.S. Army Research Laboratory, ATTN: AMSRD-ARL-CI-CT, Aberdeen Proving Ground, MD 21005-5067. (Electronic mail sent to 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 22, 2008 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 on the campus of the Virginia Military Institute in Lexington, about 45 miles northeast of Roanoke. Known for its strict code of discipline and Gothic revival architecture, VMI is the nation's oldest state military college. Late October is the perfect time to visit VMI and the surrounding area, as the fall foliage spectacle of the Blue Ridge Mountains will be at its peak. History buffs will enjoy a visit to the George C. Marshall Museum, and the gravesites of Robert E. Lee and Stonewall Jackson. Or, try your hand at fly-fishing, hike on the Appalachian trail, visit a local vineyard, or take a horse-drawn carriage ride through downtown. Culinary choices in the Lexington area range from fine French cuisine to traditional cooking with a Southern flair. For more information on sightseeing opportunities, be sure to visit the Lexington Visitor's Center website, [www.lexingtonvirginia.com](http://www.lexingtonvirginia.com).

A host letter providing more detailed information regarding registration fees, additional lodging, agenda, etc. will follow in early 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>	
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