

June 3, 2002

AMSRL-WM-BC

SUBJECT: U.S. Army Conference on Applied Statistics

Dear Colleague,

The Executive Board of the U.S. Army Conference on Applied Statistics is pleased to announce that the U.S. Army Research Office will host its eighth annual conference in Raleigh, North Carolina from October 30, 2002 to November 1, 2002.

The U.S. Army Conference on Applied Statistics is a forum for the presentation of theoretical and applied papers relating to the use of probability and statistics in solving Army problems. Today's Army confronts far-ranging challenges that encompass many topics in which probability and statistics can contribute. The development and advancement of Army systems draw upon many techniques such as survival analysis, data mining, simulation, image analysis, linear and nonlinear modeling, data fusion, and experimental design. It is the Board's intent that conference attendees include scientists ranging from statisticians with research interests to practitioners in other disciplines involved in the collection and interpretation of data.

A two-day tutorial on data mining, taught by Professor Edward J. Wegman of George Mason University, will precede the conference on October 28 & 29. Used to extract knowledge hidden from large volumes of raw data, data mining has been applied in recent years to a wide variety of research areas such as medical imaging, high-energy physics, consumer behavior, atmospheric sciences, and security and surveillance. The course will cover basic techniques used in visual data mining, including parallel coordinates, grand tour, and saturation brushing. These techniques will be illustrated in further discussions on rapid data editing, density estimation, inverse regression, tree-structured decision rules, classification and clustering, structural inference and outlier investigation.

The conference program will 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: Alan Agresti (Florida, keynote), David Marchette (Naval Surface Warfare Center), Steve Marron (North Carolina), Carey Priebe (Johns Hopkins), Frank Samaniego (California), and Russ Wolfinger (SAS).

Three special sessions will highlight this year's conference. The first of these will explore new directions and advances in **Statistical Software** from talks by James Gentle (George Mason), Robert Rodriguez (SAS), and Dan Rope (Illumitek). **Command, Control, and Communication** is an increasingly important topic for today's battlefield, and the subject of a session with scheduled presenters Noel Cressie (Ohio State), Monica Farah-Stapleton (MITRE), Montserrat Fuentes (North Carolina State), and Martin Wainwright (MIT). The final session, **Statistical Research at North Carolina State University**, will showcase recent investigations by faculty members Marc Genton, Sujit Ghosh, Subhashis Ghosa, and Jason Osborne.

The technical sessions of the conference will also feature contributed papers by Army scientists, and academic and industrial scientists, including investigators under contract to the Army. Contributed papers can range in content from new research to well-posed problems in which statistical methods are applied to solve specific Army 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 the U.S. Army Conference on Applied Statistics, 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 20, 2002 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 6. 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 16 to Barry A. Bodt, U.S. Army Research Laboratory, ATTN: AMSRL-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 written in standard ASCII text.
2. Name of author(s) and exact title of the organization(s).
3. Type of paper (technical or clinical).
4. Equipment needed (overhead, slide 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 conference also marks the occasion when the Army Wilks award is presented for significant contributions to the U.S. Army in the areas of statistical research, applications, and/or consulting. 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 July 12, 2002 to Jock O. Grynovicki, U.S. Army Research Laboratory, ATTN: AMSRL-HR-SE, Aberdeen Proving Ground, MD 21005-5425.

This year's U.S. Army Conference on Applied Statistics will be held in the McKimmon Center of North Carolina State University (NCSU) in Raleigh. The city of Raleigh and surrounding Triangle metropolitan area has emerged in the past decade as one of the most prosperous regions in the country, and in a pair of recent national studies was named the No. 1 place in America to live and to do business.

Home to nearly a quarter million residents, "The City of Oaks" offers a diverse array of attractions and events. Visitors may enjoy a stop at one of several world-class museums, soak up a little history near the state capitol downtown, admire the flora at NCSU's arboretum, or catch the excitement of Carolina Hurricanes NHL hockey. If you are planning to see some of the area when you arrive, be sure to browse the Raleigh Convention and Visitors Bureau website, www.raleighcvb.org.

The conference is sponsored this year by the U.S. Army Research Laboratory, Walter Reed Army Institute of Research, Uniformed Services University of the Health Sciences, TRADOC Analysis

Center - WSMR, United States Military Academy, and Army Research Office – with cooperation from Los Alamos National Laboratory, George Mason University, Office of Naval Research, and Institute for Defense Analyses. A host letter providing more detailed information regarding registration fees, additional lodging, agenda, etc. will follow in August. Prior to this mailing, information concerning the conference and tutorial can be obtained via the Internet at <http://www.arl.army.mil/main/acas/>. 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

Executive Board of the U.S. Army Conference on Applied Statistics		
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David W. Webb <i>U.S. Army Research Laboratory</i>	Edward J. Wegman <i>George Mason University</i>	Alyson Wilson <i>Los Alamos National Laboratory</i>
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