Statistical Engineering Division Seminar

Thursday July 24, 1997, 1:30 pm
Lecture Room B, Administration Bldg.
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Statistical Reference Datasets (StRD) for Assessing the Numerical Accuracy of Statistical Software

Eric Lagergren, Will Guthrie, Janet Rogers, & Lisa Gill

Information Technology Laboratory
NIST

With the widespread use and availability of statistical software, concerns about the numerical accuracy of such software are now greater than ever. Inevitably, numerical accuracy problems can exist with some of this software despite extensive testing. In response to concerns of both industrial users and the statistical community, the statistics and mathematics groups at NIST have developed a Web-based service that provides reference datasets with certified values for a variety of statistical methods. This service is called Statistical Reference Datasets (StRD). Currently datasets and certified values are provided for assessing the accuracy of software for univariate summary statistics, linear regression, nonlinear regression, and analysis of variance.

This talk will provide an overview of the Standard Reference Datasets Web service, describe the selection and certification of the reference datasets, and demonstrate how to use the web service.

Eric Lagergren, Will Guthrie, and Lisa Gill are statisticians in the NIST/ITL Statistical Engineering Division. Janet Rogers is a mathematician in the NIST/ITL Mathematical and Computational Sciences Division. Members of both Divisions collaborate with scientists and engineers in the NIST Labs and in industry on a wide variety of problems with statistical or mathematical components. With the formation of the Information Technology Laboratory (ITL), an increased emphasis is being placed on problems in information technology, especially problems focusing on measurement and testing issues that affect the information technology industry.

[NIST contact: Will Guthrie, 301-975-2854]