Seminar

Dept of Mathematics & Statistics
King Fahd University of Petroleum and Minerals

Presenter: Mr. Esam AlSawi
Dept of Mathematics & Statistics, KFUPM

Title: Modified Inference about the Location Parameter of the Logistic Distribution Using Type II Censored Samples

Topic & (Level): Statistical Inference & Simulations
(Estimation, Monte Carlo Methods)

Audience: All KFUPM community are cordially Invited

Date: Tuesday, May 29, 2007
Time: 1:00 PM
Location: Building 5, Smart Classroom # 203

Abstract

The Maximum Likelihood Estimator (MLE) and the Likelihood Ratio Test (LRT) can’t be found in closed form in general. The technique suggested by K. G. Mehrotra and P. Nanda (1974) is used to modify the MLE to get an estimator of the location parameter of the logistic distribution in case of type II censored sample in closed form. Then this estimator will be used to construct a new test in closed form, which is a modification of the LRT, for testing a simple hypothesis against one sided alternatives. The MLE and the new estimator are compared through their bias and mean square error functions and the LRT and the new test are compared through their power functions by simulation. The simulation results show that the new estimator and the new test are good competitors of the MLE and the LRT respectively.

Tea and Coffee will be served