Research (StaR) Colloquium
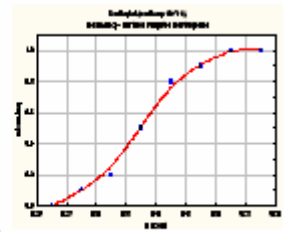
Seminar

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

Presenter	**Dr. Madan L. Puri** **Dept of Mathematics and Statistics** **KFUPM**
Title	**Conditional U-Statistics with Applications in Discriminant Analysis, ARMA Processes and Hidden Markov Models**
Topic & (Level)	Nonparametric Statistics (**Methodology**)
Audience	All KFUPM community are cordially Invited (including graduate students)
Date	Sunday, June 6, 2010
Time	12:20 PM – 1:20 PM
Location	Building 5, Smart Classroom # 102

Abstract

Stute (*Ann. Probab.* (1991), *Ann. Statist.* (1994)) introduced a class of conditional U-statistics which generalize the Nadaraya-Watson estimate of a regression function. Under the usual iid set-up, Stute proved the asymptotic normality, weak and strong consistency and the universal consistency of the estimate in the rth mean. Here we extend Stute's results from the independent case to the dependent case. Applications to discriminant analysis, ARMA processes and hidden Markov models are provided. The work is in collaboration with Professor Michel Harel (C.N.R.S. Toulouse, France).

Tea and Coffee will be served