DEPARTMENT OF STATISTICS COLLOQUIUM SERIES

Texas A&M University

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CONDITIONAL U-STATISTICS WITH APPLICATIONS IN DISCRIMINANT ANALYSIS, ARMA PROCESSES AND HIDDEN MARKOV MODELS

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 *r*th 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).

DATE: Thursday, March 5, 2009
TIME: 11:10 a.m. – 12:10 p.m.
PLACE: Room 150, Blocker

Refreshments will be served in the Statistics Conference Room at 10:30 am for those attending the seminar.