

DEPARTMENT OF STATISTICS COLLOQUIUM SERIES

Texas A&M University

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**MODEL DIAGNOSTICS VIA KHMALADZE'S MARTINGALE
TRANSFORM**

ABSTRACT:

A classical problem in statistics is to fit a distribution up to unknown location-scale parameters. This problem is generic to many other statistical models including the celebrated regression and autoregressive and generalize autoregressive conditionally heteroscedastic (ARCH-GARCH) models where one is testing that innovations are from a given distribution. It will be argued that the Khamaladze's martingale transformation of the residual empirical process that yields asymptotically distribution free tests for the one sample location-scale model does the same thing for a parametric heteroscedastic regression model, nonparametric regression models and for ARCH-GARCH models.

This talk is based on some ongoing joint work with Estate Khmaladze.
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DATE: Thursday, March 11, 2010
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.