

Seminar Notice

Statistical Laboratory
Iowa State University

- DATE AND TIME:** Monday, March 6, 2006, 4:10 p.m.
- PLACE:** 319 Snedecor
- SPEAKER:** Zongwu Cai
Department of Mathematics and Statistics
and Department of Economics
University of North Carolina at Charlotte
Department of Economics and Finance
Aetna School of Management, Shanghai Jiaotong
University, China
- TITLE:** Semi/Non-parametric Dynamic Quantile Regression
Models and Their Applications

ABSTRACT

In this talk, first I will briefly review some semiparametric and nonparametric regression models for time series data and their applications such as value-at-risk. In particular, I will focus on a class of smooth coefficient quantile regression time series models based on some applications. We employ a local linear fitting scheme to estimate the smooth coefficients in the quantile framework. The programming involved in the local linear quantile estimation is relatively simple and it can be modified with few efforts from the existing programs for the linear quantile model. We derive the local Bahadur representation of the local linear estimator for alpha-mixing time series and establish the asymptotic normality of the resulting estimator. The asymptotic behaviors of the estimator at the boundaries are examined. A comparison of the local linear quantile estimator with the local constant estimator is presented. A simulation study is carried out to illustrate the performance of the estimates. An empirical application of the model to the exchange rate time series data and the well-known Boston house price data further demonstrates the potential of the proposed modeling procedures.

COFFEE: 3:45 p.m., 104 Snedecor Hall

Seminar schedules and abstracts are available via WWW: <http://www.stat.iastate.edu/>