Topic:

Modeling and Prediction for Nonlinear Time Series

Speaker:

Dr. Jane L. Harvill
Department of Mathematics and Statistics
Mississippi State University

## Abstract:

We present three methods for forecasting using a functional coefficient autoregressive (FCAR) model for univariate and vector time series. The first method is a "naive forecast," and the form of the functional coefficient is determined using only the within-sample series values. The second method is a bootstrap predictor, and is a variation of the naïve forecast with predicted values computed using a bootstrap value of within-sample residuals from the fitted FCAR model. The final method is a multistage method, where the functional coefficients are updated at each step to incorporate the information from the time series in the predicted response. The three methods are applied to U.S. GNP and unemployment to compare performance and illustrate utility.

Date: Friday, November 12, 2004

Time: 11 AM Location: Hume 331

ALL ARE WELCOME.

Tea/coffee/snacks will be served at 10.45 AM in the faculty lounge.