For Favour of Posting

THE CHINESE UNIVERSITY OF HONG KONG

Department of Statistics

will present a seminar entitled

On nonparametric and semiparametric testing for multivariate time series

by

Professor Yoshihiro YAJIMA
Faculty of Economics
University of Tokyo

on

Tuesday, 18 April 2006

2:00pm – 3:00pm

in

Lady Shaw Building C4
The Chinese University of Hong Kong

Abstract:

We formulate nonparametric and semiparametric hypothesis testing of multivariate stationary time series in a unified fashion and propose new test statistics based on estimators of the spectral density matrix. The limiting distributions of these test statistics under null hypotheses are always normal distributions and they are implemented easily for practical use. While if null hypotheses are false, as n, the sample size, goes to infinity, they diverge to infinity faster than the parametric rate $n^{1/2}$. They can be applied to various null hypotheses such as the independence between the component series, the equality of the autocovariance functions or the autocorrelation functions of the component series, and the separability of the covariance matrix function.

All are Welcome