

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Professor Rodney WOLFF

School of Mathematical Sciences
Queensland University of Tehcnology
Australia

will give a talk

entitled

BILINEAR GARCH MODELS

Abstract

Classical GARCH-type models have a distinguished history of capturing important features of volatility. In this seminar, we consider the class of Bilinear GARCH (BL-GARCH) models which are capable of capturing simultaneously two key properties of non-linear time series: volatility clustering and leverage effects. We examine the BL-GARCH model in the general setting under some non-Normal distributions to accommodate marginal distributions with heavy tails. We present some probabilistic properties of the model, and illustrate small-sample performance of maximum likelihood estimation using Monte Carlo experiments. Within-sample estimation properties are shown using S&P500 daily returns. We also turn our attention to modelling spot prices in electricity markets, in particular to use key features of the Bilinear model to test the hypothesis that the conditional mean and conditional volatility of price returns are asymmetric functions of past information. Our methods are illustrated using data from the National Electricity Market in Australia, which has distinctive features different from those of North America and Europe. This is joint work with Abdou-Ka Diongue (Universite Gaston Berger, St Louis, Senegal) and Dominique Guegan (Universite Paris I Pantheon-Sorbonne).

on

Wednesday, September 2, 2009

2:00 p.m. – 3:00 p.m.

at

**Room 501, Meng Wah Complex
(behind the Chong Yuet Ming Amenities Centre)**

Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 2859 2466 for parking arrangement.

All interested are welcome