The Hong Kong Polytechnic University
Department of Applied Mathematics

Colloquium

On

Long Memory Volatility Models – Some Further Results

by

Professor Wai Keung Li
The University of Hong Kong

Wai Keung Li is a Chair Professor and the Head of Department of Statistics and Actuarial Science at The University of Hong Kong. He got his PhD from University of Western Ontario in 1981. He is an Elected Fellow of American Statistical Association and Institute of Mathematical Statistics. He received many academic awards and honors. His research interests include Time Series Analysis, Stochastic Analysis, Financial and Insurance Risk Management, and Environmental Statistics. He has published many papers widely in leading statistics journals such as Annals of Statistics, Biometrika, Journal of the American Statistical Association, and Journal of the Royal Statistical Society.

Abstract:
Some new developments in long memory volatility models are reported. In one aspect, some score tests are proposed to test for the hyperbolic decay of the coefficients in an autoregressive conditional heteroscedastic (ARCH) infinity model. In another, a reinterpretation of the hyperbolic generalized ARCH (HYGARCH) model proposed by Davidson (2004) allows us to define naturally a new long memory model: the mixture memory GARCH model. Statistical inferences for the new model are developed. Some real examples are presented under both aspects.

Date : November 11, 2011 (Friday)

Time : 2:30 p.m. – 3:30 p.m.

Venue : HJ610, The Hong Kong Polytechnic University

***** ALL ARE WELCOME *****