

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE  
THE UNIVERSITY OF HONG KONG

50<sup>th</sup> Anniversary Seminar Series

**Professor Timo TERÄSVIRTA**

CREATES, Aarhus University  
Denmark

will give a talk  
entitled

**CONSISTENCY AND ASYMPTOTIC NORMALITY OF  
MAXIMUM LIKELIHOOD ESTIMATORS OF A  
MULTIPLICATIVE TIME-VARYING SMOOTH TRANSITION  
CORRELATION GARCH MODEL**

Abstract

A new multivariate volatility model that belongs to the family of conditional correlation GARCH models is introduced. The GARCH equations of this model contain a multiplicative deterministic component to describe long-run movements in volatility and, in addition, the correlations are deterministically time-varying. Parameters of the model are estimated jointly using maximum likelihood. Consistency and asymptotic normality of maximum likelihood estimators are proved. Numerical aspects of the estimation algorithm are discussed. A bivariate empirical example is provided.

This is joint work with Annastiina Silvennoinen, QUT, Brisbane.

on

**Wednesday, March 29, 2017**

*(Refreshments will be served from 2:15 p.m. outside Room 301 Run Run Shaw Building)*

**2:30 p.m. – 3:30 p.m.**

at

**Room 301, Run Run Shaw Building**

**Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 3917 2466 for parking arrangement.**