For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

50th Anniversary Seminar Series

Professor Liudas GIRAITIS

School of Economics and Finance
Queen Mary, University of London
U.K.

will give a talk
entitled

ESTIMATION OF TIME VARYING COVARIANCE MATRICES FOR LARGE DATASETS

Abstract

Time variation is a fundamental problem in statistical and econometric analysis of macroeconomic and financial data. Recently there has been considerable focus on developing econometric modelling that enables stochastic or structural change in model parameters and on model estimation by Bayesian or non-parametric kernel methods. In the context of the estimation of covariance matrix of large dimensional panels, such data requires taking into account time variation, possible dependence and heavy tailed distributions. In this paper we introduce a non-parametric version of regularisation technique of sparse large covariance matrices developed by Bickel and Levina (2008) and others. We focus on the robustness of such procedure to time variation, dependence and heavy-tailedness of distributions. The paper includes a set of results on Bernstein type inequalities for dependent unbounded variables which are expected to be applicable in econometric analysis beyond estimation of large covariance matrices. We discuss the utility of the robust thresholding method comparing it with other estimators in simulations and empirical application like the designing of the minimum variance portfolios.

on

Wednesday, June 21, 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.

ALL INTERESTED ARE WELCOME