*For favour of posting*

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

# Professor LIN Lu

Institute for Financial Studies
Shandong University
China

will give a talk

entitled

# CONSISTENT ESTIMATION FOR DISTRIBUTION-UNCERTAINTY REGRESSION VIA CROSS-SAMPLE METHOD

Abstract

Distribution-uncertainty data often appear in some scientific areas such as mathematical finance. For a type of common distribution-uncertainty regressions, however, the classical estimating function does involve numerous nuisance parameters caused by uncertain error distribution. Consequently, the parameters of interesting cannot be consistently estimated and the corresponding prediction is imprecise, even aimless. In this talk, a cross-sample technique, together with a hidden-constant function, is proposed for dealing with the numerous nuisance parameters. Therefore, the resultant estimating function only contains the parameters of interesting, the estimators of them are always consistent and normally distributed with standard convergence rate under commonly used conditions. The main difference from the classical regression analysis is that the estimation efficiency depends on the level of distribution-uncertainty. Moreover, the methodologies for numerical computation are simple, and the corresponding computation procedures are somewhat similar to those for the distribution-certainty models.

on

**Wednesday, January 20, 2016**

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

**2:30 p.m. – 3:30 p.m.**

at

**Room 301, Run Run Shaw Building**

**<u>Visitors Please Note</u> 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