DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Dr. Xinyu ZHANG

Academy of Mathematics and Systems Science
Chinese Academy of Sciences
Beijing, China

will give a talk

entitled

MODEL AVERAGING IN LINEAR MEASUREMENT ERROR MODELS

Abstract

We develop model averaging estimation in the linear regression model where covariates are subject to measurement errors. The absence of the true covariates in this framework makes the calculation of the standard residual based loss function impossible. We take advantage of the explicit form of the parameter estimators and construct a new criterion. It has the property that it is asymptotically equivalent to the unknown model average estimator minimizing the loss function. When the true model is not included in the set of candidate models, the method achieves optimality in terms of minimizing the relative loss, while when the true model is included, the method estimates the model parameter with root-n rate. Numerical analysis in comparison with existing BIC and AIC model selection and model averaging methods strongly favors our new model averaging method.

This work is jointly with Prof. Yanyuan Ma and Prof. Raymond J. Carroll.

on

Friday, July 24, 2015

(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