Statistics Seminar

Department of Mathematical Sciences

DATE:	Thursday, November 17, 2016
TIME:	1:15pm to 2:15pm
LOCATION:	WH 100E
SPEAKER:	Ruiqi Liu, Binghamton University
TITLE:	Statistical inference on panel data: a kernel ridge regression approach

Abstract

Panel Data is common in financial and economical areas. Various models have been developed to explain the relationship between variables. For example, the classic random/fixed effect model can discover the individual effects and common effects among different subjects, while the common factor model is able to characterize the cross-sectional factors with different individual factor loading. In our work, a non-parametric interactive fixed effects (NIFE) model, unifying the existing popular models, is considered which includes a heterogeneous or homogeneous non-parametric component, an unobservable cross-sectional factor and unobservable factor loading. We propose a kernel ridge regression approach to estimate the non-parametric function and model parameters. Convergence rate and asymptotic normality are established in both heterogeneous and homogeneous cases. Numerical evidence supports our results.