DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

50th Anniversary Seminar Series

Professor Ji ZHU

Department of Statistics
University of Michigan
USA

will give a talk

entitled

NETWORK CROSS-VALIDATION BY EDGE SAMPLING

Abstract

Many models and methods are now available for network analysis, but model selection and tuning remain challenging. Cross-validation is a useful general tool for these tasks in many settings, but is not directly applicable to networks since splitting network nodes into groups requires deleting edges and destroys some of the network structure. Here we propose a new network cross-validation strategy based on splitting edges rather than nodes, which avoids losing information and is applicable to a wide range of network problems. We provide a theoretical justification for our method in a general setting, and in particular show that the method has good asymptotic properties under the stochastic block model. Numerical results on both simulated and real networks show that our approach performs well for a number of model selection and parameter tuning tasks. This is joint work with Tianxi Li and Elizaveta Levina.

on

Friday, June 2, 2017

(Refreshments will be served from 10:45 a.m. outside Room 301 Run Run Shaw Building)

11:00 a.m. – 12:00 noon

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