

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Departmental Seminar

Dr. Zhan LIU

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will give a talk
entitled

COVARIATE-ADJUSTED SUPERPOPULATION MODEL INFERENCE FOR NONPROBABILITY SAMPLES

Abstract

In the superpopulation modeling approach for nonprobability samples, a model is fitted for the analysis variable from a nonprobability sample, and is used to project the sample to the full population. However, there are some situations where predictors are not directly observable, but are distorted with a multiplicative factor that is determined by an unknown function of an observable covariate. In this paper, to develop the superpopulation approach for nonprobability samples, we first estimate the distorting functions by nonparametrically regressing the predictors on the observable distorting covariate; then, the population mean estimators for the nonprobability samples are obtained by using the estimated predictors. The consistency properties of the proposed covariate-adjusted population mean estimator are derived. Simulation studies are conducted to assess the performance of the proposed method. An application to Chinese General Social Survey (CGSS, 2015) demonstrates the utility of the proposed method in practice.

on

Tuesday, July 23, 2019

(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