

The Hong Kong Polytechnic University
Department of Applied Mathematics

Colloquium

**A Versatile Estimation Procedure without Estimating the
Nonignorable Missingness Mechanism**

By

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Abstract

We consider the estimation problem in a regression setting where the outcome variable is subject to nonignorable missingness and identifiability is ensured by the shadow variable approach. We propose a versatile estimation procedure where modeling of missingness mechanism is completely bypassed. We show that our estimator is easy to implement and we derive the asymptotic theory of the proposed estimator. We also investigate some alternative estimators under different scenarios. Comprehensive simulation studies are conducted to demonstrate the finite sample performance of the method. We apply the estimator to a children's mental health study to illustrate its usefulness.

Date : August 15, 2019 (Thursday)

Time : 10:30am – 11:30am

Venue : TU801, The Hong Kong Polytechnic University

***** ALL ARE WELCOME *****