



DEPARTMENT OF APPLIED MATHEMATICS

應 用 數 學 系

**The Hong Kong Polytechnic University
Department of Applied Mathematics**

Colloquium

**Additive rates regression for multivariate recurrent events with
event types missing at random**

by

Dr. Ye Peng

School of Statistics, University of International Business and Economics

Abstract

Multivariate recurrent event data are frequently encountered in biomedical studies and in many applications, event types may potentially be missing. In this article, we consider a semiparametric additive rates model for multivariate recurrent event data that allows some event types to be missing at random. Weighted estimating equation approaches are employed to estimate the model parameters, and nonparametric methods are used to estimate the event category probabilities which are completely unspecified. The resulting estimators are shown to be consistent and asymptotically normal. Simulation studies and a real data analysis demonstrate that the proposed method performs well and is appropriate for practical use.

Date : 15 August 2016 (Monday)

Time : 4:00p.m. – 5:00p.m.

Venue : TU801, The Hong Kong Polytechnic University

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