



DEPARTMENT OF APPLIED MATHEMATICS

應 用 數 學 系

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

Colloquium

**Variable Selection in Mean Residual Life Models with Censored
Survival Data**

by

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Abstract

We study variable selection in mean residual life models with censored survival data. We propose penalized estimating functions to select variables and estimate regression coefficients simultaneously. We show that with proper choice of penalty functions and tuning parameters, our estimator not only is root-n consistent but also enjoys the oracle property. We propose an implementation of our methods based on local quadratic approximation and the Bayesian information criterion (BIC)-type selection criterion. Simulation studies demonstrate that the proposed methods perform well in variable selection and variance estimation. We illustrate our methods using the Mayo Clinic primary biliary cirrhosis data.

Date : 15 August 2016 (Monday)

Time : 5:00p.m. – 6:00p.m.

Venue : TU801, The Hong Kong Polytechnic University

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