



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

Seminar

On

**Regression Analysis of ‘Yes’ or ‘No’ Recurrent Events with
Application to Wenchuan Earthquake Data**

by

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Abstract

In this article, we introduce a new type of recurrent event data, named ‘Yes’ or ‘No’ recurrent event data. In such a setting, the exact onset time and the number of recurrent event of interest cannot be observed. The only available information was whether the recurrent event of interest happened or not during some observe interval. Our interest focuses on the estimation of the effect of risk factors on ‘Yes’ or ‘No’ recurrent event data. B-spline functions are used to estimate the baseline hazard function. The covariate coefficients are estimated by maximizing the observed log pseudo-likelihood function. We show that the proposed estimates are consistent and have asymptotic normal distribution. Simulation studies with moderate samples show that the estimation approach can be done easily and efficiently. The approach is illustrated through application to a data set from an post-traumatic stress.

Date : 20 Feb, 2014 (Thursday)

Time : 2:30 p.m. – 3:30 p.m.

Venue : TU717, The Hong Kong Polytechnic University

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