

*For favour of posting*

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE  
THE UNIVERSITY OF HONG KONG

Departmental Seminar

**Dr. Thomas FUNG**

Department of Mathematics and Statistics  
Macquarie University  
Sydney, Australia

will give a talk  
entitled

**SEMIPARAMETRIC GENERALIZED LINEAR MODELS  
FOR TIME-SERIES DATA**

Abstract

Time-series data in population health and epidemiology often involve non-Gaussian responses. In this talk, we consider a semiparametric version of the generalized linear autoregressive moving average models (GLARMA) that does not require specification of a working conditional response distribution for the data. Instead, the underlying response distribution is treated as an infinite-dimensional parameter, which is estimated simultaneously with the usual finite-dimensional parameters via a maximum empirical likelihood approach. Simulations suggest that both estimation and inferences using the proposed method can perform as well as the correctly-specified parametric models even for moderate sample sizes, but can be more robust than parametric methods under model misspecification. We will also discuss our recent attempt to implement the proposed model in R. This talk represents joint research with Alan Huang.

on

**Wednesday, October 31, 2018**

*(Refreshments will be served from 2:15 p.m. outside Room 301 Run Run Shaw Building)*

**2:30 p.m. – 3:30 p.m.**

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