

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Professor Dr. Paul Embrechts

Professor of Mathematics
Department of Mathematics
ETH Zurich, Switzerland

will give a talk

entitled

HAWKES GRAPHS

Abstract

In this talk the Hawkes skeleton and the Hawkes graph are introduced. These objects summarize the branching structure of a multivariate Hawkes point process in a compact, yet meaningful way. I demonstrate how graph-theoretic vocabulary is very convenient for the discussion of multivariate Hawkes processes. I also show how the graph view may be used for the specification and estimation of Hawkes models from large, multitype event streams. We pay special attention to computational issues in the implementation. This makes the results applicable to data with dozens of event streams and thousands of events per component. A simulation study confirms that the procedure presented works as desired. The talk finishes with an application to the modeling of order book data in the context of high frequency finance. The results presented are based on joint work with Matthias Kirchner, RiskLab, ETH Zurich.

on

Wednesday, October 19, 2016

(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