

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Departmental Seminar

Dr. Zhuo JIN

Centre for Actuarial Studies
Department of Economics
The University of Melbourne
Australia

will give a talk
entitled

**INVESTMENT, CONSUMPTION AND LIFE INSURANCE PURCHASE
IN A SELF-CONTAGIOUS MARKET**

Abstract

In this paper, we consider the optimal asset allocation, consumption, and life insurance purchase strategies for a household with one wage earner under a market with bivariate self-exciting Hawkes jump processes. The wage earner has a uncertain lifetime and is subject to a fixed retirement date. The Hawkes process captures the impact of contagion that each price jump will influence the probability of the next price jump. The wage earner receives an exogenous stochastic income stream continuously throughout the life. In addition, a lump-sum payment will be paid as a heritage if the wage earner dies before the retirement date. Explicit solutions of the optimal controls are obtained in certain cases by using the dynamic programming principle. For more general cases, we apply the Feynman-Kac formula and develop a numerical scheme. Numerical examples are presented to show that the jump intensities have significant influence on the allocation control but small influence on the consumption and life insurance purchase policies.

on

Thursday, January 16, 2020

(Refreshments will be served from 10:45 a.m. outside Room 301 Run Run Shaw Building)

11:00 a.m. – 12:00 noon

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