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DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Public Seminar of PhD Candidate

Ms. WANG Guanqing

Department of Statistics and Actuarial Science
The University of Hong Kong

will give a talk

entitled

A STUDY ON INSURANCE RISK AND CREDIT RISK MODELS

Abstract

This talk contains three parts. In the first part, an insurer with n $(n \geq 2)$ classes of insurance businesses is considered. The surplus process for each class of insurance business is assumed to follow a compound Cox risk process. Assume that n surplus processes are correlated with thinning dependence and regime switching. Some closed form results are obtained. Numerical examples are presented to explain how the collection of insurance risk increases the solvency of an insurer. In the second part, a new structural form credit risk model is proposed, in which the market value of a defaultable firm is assumed to follow a geometric jump diffusion process with regime switching. The influence of the macro economy on the corporate bond and its corresponding CDS is studied. In the third part, the price of dynamic fund protection with stochastic protection level and the dynamic withdrawal benefit with stochastic "dividend barrier" are derived.

on

Friday, December 16, 2016

2:30 p.m. – 3:30 p.m.

at

Room 301, Run Run Shaw Building

All interested are welcome