## DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE THE UNIVERSITY OF HONG KONG

Seminar for Confirmation of Candidature

## Ms. JIANG Xin

Department of Statistics and Actuarial Science
The University of Hong Kong

will give a talk

entitled

## OPTIMAL REINSURANCE AND INVESTMENT CONTROL WITH TIME-VARING SAFETY LOADING

## **Abstract**

This paper studies the optimal investment and reinsurance problem for a risk model with time-varying safety loading. It is assumed that the insurance safety loading and the time-varying claim arrival rate are connected through a monotone decreasing function, and that the insurance and reinsurance safety loadings have a linear relationship. Applying stochastic control theory, we are able to derive the optimal strategy that maximizes the expected exponential utility of terminal wealth. We also provide a few numerical examples to illustrate the impact of model parameters on the optimal strategy.

on

Monday, August 15, 2016

2:30 p.m. - 3:30 p.m.

at

Room 301, Run Run Shaw Building

All interested are welcome