

For favour of posting

AMENDED



DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

50th Anniversary Seminar Series

Professor Andrei BADESCU

Department of Statistical Sciences
University of Toronto
Canada

will give a talk
entitled

**AN IBNR-RBNS INSURANCE RISK MODEL WITH MARKED
POISSON ARRIVALS**

Abstract

Inspired by the claim reserving problem in non-life insurance, this presentation proposes to study the insurer's surplus process under a micro-level framework, with particular focus on modelling the Incurred But Not Reported (IBNR) and the Reported But Not Settled (RBNS) claims. It is assumed that accidents occur according to a Poisson point process, and each accident is accompanied by a claim developmental mark that contains the reporting time, the settlement time, and the size of (possibly multiple) payments between these two times. Under exponential reporting and settlement delays, we show that our model can be represented as a Markovian risk process with countably infinite number of states. This can in turn be transformed to an equivalent fluid flow model when the payments are phase-type distributed. As a result, classical measures such as ruin probability or more generally the Gerber-Shiu expected discounted penalty function follow directly. We discuss at a high level how these quantities can be obtained. Numerical illustrations are given at the end, including the use of a real insurance dataset.

on

Wednesday, April 26, 2017

(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