

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

## 50th Anniversary Seminar Series

### **Professor RABEHASAINA Landy**

Laboratory of Mathematics University of Bourgogne Franche Comté France

will give a talk entitled

# ASYMPTOTICS FOR MULTIDIMENSIONAL AND FRACTIONAL POISSON IBNR PROCESSES

#### Abstract

Several papers have investigated closed form formulas for distribution (Laplace Transform or cdf) or moments of Incurred But Non Reported claim processes, See Willmott & Drekic (2002/2009), Landriault et al (2014/2016). We are interested in this talk in such a process generalized by including a discounting factor, and considering \$k>1\$ branches, i.e. correlated IBNR processes. As closed form expressions are not in general available (see Woo (2016)), we will give in this talk asymptotics for joint moments as well as the limiting distribution of the \$k\$ dimensional processes properly rescaled, in the case where interclaims are light tailed. Finally, in the particular \$k=1\$ case where claims arrive according to a Poisson fractional process, we will provide asymptotics for the moments and variance of the (non discounted) IBNR process. This is joint work with E.C.K.Cheung, J.K.Woo and R.Xu (Hong Kong Univ.)

on

Friday, April 7, 2017

(Refreshments will be served from 2:45 p.m. outside Room 301 Run Run Shaw Building)

3:00 p.m. - 4:00 p.m.

at

### Room 301, Run Run Shaw Building

<u>Visitors Please Note</u> that the University has limited parking space. If you are driving please call the Department at 3917 2466 for parking arrangement.