

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Dr. Victoria RIVAS

Datamining and Statistics
Francisco de Vitoria University
Spain

will give a talk
entitled

A PRACTICAL VISION OF THE APPLICATION OF SPATIAL ECONOMETRICS IN INSURANCE COMPANIES

Abstract

This presentation discusses the advantages of the application of spatial econometrics to the insurance and reinsurance sector. Spatial econometrics is a subfield of econometrics that deals with spatial interaction (spatial autocorrelation) and spatial structure (spatial heterogeneity) in regression models for cross-sectional or panel data (Paelinck and Klaassen, 1979, Anselin, 1988). Taking into account spatial dependence between areas or locations is highly relevant when an actuary models risks linked for instance to natural catastrophes affecting buildings, properties and lives or for ratemaking of health insurance where diseases affect specific regions. It is also relevant in order to predict and model customer churn from an insurance company. The presentation is divided into two parts:

- (i) The first part presents a theoretical and practical introduction of spatial econometrics analyzing types of spatial data, neighborhood matrix, spatial autocorrelation and regression models for spatially autocorrelated data. All these concepts are analyzed using empirical insurance data.
- (ii) The second part presents an analysis of the applications of spatial econometrics to the insurance sector. Applications such as: non-life pricing, prediction and modeling customer churn or implications of spatial effects in the calculation of the solvency capital requirement under Solvency II.

on

Tuesday, February 7, 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