DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

50th Anniversary Seminar Series

Dr. Lionel TRUQUET

IRMAR, ENSAI, CNRS, UEB
France

will give a talk
entitled

DISCRETE-TIME MARKOV MODELS WITH TIME-VARYING PARAMETERS

Abstract

Many data sets encountered in economics or finance exhibit time-inhomogeneity, especially when the time series are studied over a long period of time. In the literature, a lot of effort has been done to get more flexible models, in particular by allowing the parameters of some standard stationary models to depend on the time. A standard approach to this problem is the notion of local stationarity which has the advantage to be compatible with some classical nonparametric inference methods for the parameters of the model.

In the first part of this talk, we will illustrate the usefulness of such modeling with an application of locally stationary ARCH models to financial data and we will see that unexpected findings are obtained for daily financial returns or currency exchange rates.

In the second part of the talk, we will present a generic approach to construct Markov chains models with time-varying parameters. This new approach is based on spectral gap properties of Markov kernels and has important connections with the perturbation theory of geometrically ergodic Markov chains.

on

Wednesday, June 21, 2017

(Refreshments will be served from 10:45 a.m. outside Room 301 Run Run Shaw Building)

11:00 a.m. – 12:00 noon

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