For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

50th Anniversary Seminar Series

Professor Daniel PEÑA

Department of Statistics
Institute UC3M-BS of Financial Big Data
Universidad Carlos III de Madrid
Spain

will give a talk

entitled

CLUSTERING TIME SERIES BY DEPENDENCY

Abstract

A new way to find clusters in large vectors of time series is presented. We define a measure of similarity between two series, the generalized cross correlation, that takes into account all their cross correlations until some lag k. The measure is a ratio of the determinants of the correlation matrix of the bivariate vector and the two univariate time series. The matrix of similarities among the series based on this measure is used as input of a hierarchical clustering algorithm. The procedure is automatic and can be applied to large data sets. Clustering using this approach will be useful to build Dynamic Factor Models with Group Structure. The procedure is illustrated with some Monte Carlo experiments and a real data example.

on

Wednesday, January 3, 2018

(Refreshments will be served from 1:45 p.m. outside Room 301 Run Run Shaw Building)

2:00 p.m. – 3:00 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