

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Departmental Seminar

Dr. Qianqian ZHU

School of Statistics and Management
Shanghai University of Finance and Economics
China

will give a talk
entitled

QUANTILE DOUBLE AUTOREGRESSION

Abstract

Many financial time series have varying structures at different quantile levels, and also exhibit the phenomenon of conditional heteroscedasticity at the same time. In the meanwhile, it is still lack of a time series model to accommodate both of the above features simultaneously. This paper fills the gap by proposing a novel conditional heteroscedastic model, which is called the quantile double autoregression. The strict stationarity of the new model is derived, and a self-weighted conditional quantile estimation is suggested. Two promising properties of the original double autoregressive model are shown to be preserved. Based on the quantile autocorrelation function and self-weighting concept, two portmanteau tests are constructed, and they can be used in conjunction to check the adequacy of the fitted conditional quantiles. The finite-sample performance of the proposed inference tools is examined by simulation studies, and the necessity of the new model is further demonstrated by analyzing the S&P500 Index.

on

Thursday, July 25, 2019

(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