THE UNIVERSITY OF HONG KONG

Department of Mathematics

Numerical Mathematics and Applied Analysis Group Seminar (NMAA)

Study on the Unit Root Test of the Autoregressive Time Series

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on Thursday, August 5, 2010 at 2:30pm
in Room 206, Run Run Shaw Bldg., HKU

Abstract

Autoregressive time series is a class of important model in modern statistics; it is widely applied in economics and finance. Many time series records present nonstationary properties and the unit root phenomenon widely exists. Testing unit root hypothesis are recognized to be of increasing importance, much research has been done in this direction. Motivated by practical applications in statistic and econometrics, various unit root processes with non-i.i.d (independent identically distributed) errors were considered in the study. Under the mild conditions, some limit theories were established. The following three topics will be included in this talk:

- The limit distribution of the bootstrap for the unit root test statistics
- The limit distribution of the unit root test statistics with a mean shift
- Self-normalized Dickey-Fuller test for the unit root test statistics

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All are welcome
