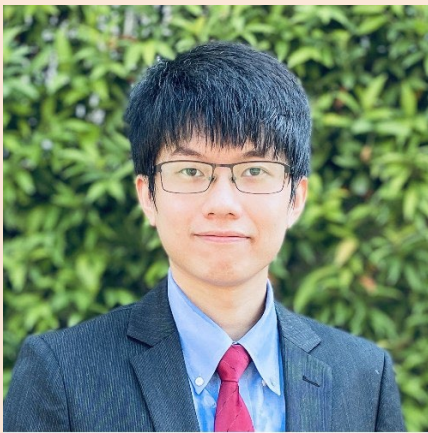




Lecture on
“Structural change estimator for models with
episodic explosiveness and strongly dependent errors”

by Professor Yiu Lim Lui

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Dongbei University of Finance and Economics



Date: 8 August 2024 (Thursday)
Time: 11:00 am – 12:15 pm
Venue: Room 201,
2/F, Cheng Yu Tung Building,
The Chinese University of Hong Kong,
12 Chak Cheung Street,
Shatin, N.T.
Language: English

Abstract:

A recent paper by Lui et al. (2024) proposed a bubble detection method under an autoregressive (AR) model incorporating a long memory error. We demonstrate that the consistency of the bubble termination date estimate recently proposed by them relies on the relative speed of bubble expansion and collapse parameters. Conversely, a sample-splitting method is shown to achieve consistent estimation of both bubble initiation and termination dates under a strictly less restrictive condition. Furthermore, Cauchy limit theorem for least squares estimators for the AR parameters during bubble expansion and collapse are established. Two t-statistics for these AR parameters with new standard errors which take into account the long memory error are shown to have limiting standard normal distributions. Simulations and an empirical application to the S&P 500 data underscore the efficacy of our sample-splitting method.

About the Speaker:

Dr. Yiu Lim Lui is currently an associate professor at the Institute for Advanced Economic Research, Dongbei University of Finance and Economics. Dr. Lui received his Ph.D. in Economics from the School of Economics, Singapore Management University. His research interests include time series econometrics, econometric theory, and financial econometrics. His research focuses on nonstationary time series, bootstrap methods, and fractionally integrated time series. His work has been published in reputable academic journals, such as the Journal of Econometrics, Journal of Business and Economic Statistics, and Oxford Bulletin of Economics and Statistics. Additionally, he serves as an anonymous referee for journals like Econometric Theory, Journal of Financial Econometrics, and Econometrics Review.

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