



High Dimensional Nonstationary Time Series

IRTG 1792 Short Course

Wei Biao Wu

II. Portmanteau Test and Simultaneous Inference for Serial Covariances for Low and High Dimensional Time Series

We will presents a systematic theory for asymptotic inferences based on autocovariances of stationary processes. Both low and high dimensional time series are considered. We consider nonparametric tests for serial correlations using the maximum (or L^∞) and the quadratic (or L^2) deviations of sample autocovariances. For these two cases, with proper centering and rescaling, the asymptotic distributions of the deviations are Gumbel and Gaussian, respectively. A Ljung-Box test for high dimensional time series is proposed.



Wei Biao Wu received the Ph.D. degree in statistics in 2001 from The University of Michigan, Ann Arbor. He is currently Professor of Statistics at The University of Chicago. His research interests include probability theory, statistics, financial time series and econometrics. He is currently interested in developing asymptotic theory for high-dimensional time series. He has received the National Science Foundation Career Award (2004) and The Tjalling C. Koopmans Econometric Theory Prize (2009). His research is supported by National Science Foundation research grants.



July 2, 2019 | 10:15 - 11:45 | 0.05 DOR1

irtg1792.hu-berlin.de



HUMBOLDT GRADUATE SCHOOL

