On the Monitoring of Structural Changes in Linear Models with Dependent Errors

Alexander Schmitz
University of Cologne

ABSTRACT. Chu et al. (1996) proposed a CUSUM monitoring for the sequential detection of a parameter change in linear models with martingale difference errors. In this talk, we consider these linear models with one-dimensional regressors. We present some related (regressor weighted) CUSUM detectors and illustrate the use of certain early-change weight functions in the sense of Horváth et al. (2004). Furthermore, under one-time parameter shift alternatives, we derive the asymptotic power one for the sequential test using the regressor weighted CUSUM detector.