Ann Inst Stat Math (2016) 68:621–637
DOI 10.1007/s10463-015-0541-x

Parameter change test for autoregressive conditional duration models

Sangyeol Lee[1] · Haejune Oh[1]

Received: 2 May 2014 / Revised: 30 December 2014 / Published online: 9 September 2015

Abstract In this study, we consider the parameter change test in nonlinear autoregressive conditional duration models. Particularly, we use the cumulative sum test based on parameter estimates and verify that its limiting null distribution is the supremum of a Brownian bridge. A simulation study and real data analysis are provided for illustration.

Keywords Nonlinear ACD models · Parameter change test · Cusum test · Brownian bridge

✉ Sangyeol Lee
jpgrslee@yahoo.com

[1] Department of Statistics, Seoul National University, Seoul 151-747, Korea