

Monitoring procedures in RCA models

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Random coefficient autoregressive (RCA) models belong to a broad class of conditional heteroscedastic time series models because of their varying conditional variance and as such may be used in various applications and also to model financial data. In the contribution we will consider monitoring procedures to detect stability of the parameters of RCA(p) models. We will study procedures based on the quasi-maximum likelihood principle and score statistics as well as those based on cumulative sums of weighted residuals and conditionally weighted least-squares estimators and their modifications. A multivariate RCA(1) model will be also considered.