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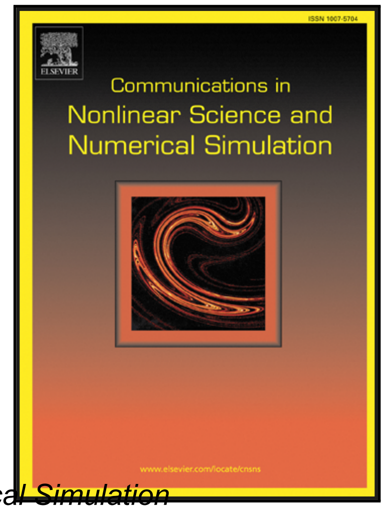

Detrended fluctuation analysis of multivariate time series

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Highlights

- We extend the detrended fluctuation analysis to the multivariate case, named MVDFA.
- The MVDFA exponent is identical with the average exponent of the individual series.
- The scaling exponent of correlated bivariate series is irrelevant to correlation levels.
- The number of series with large exponent in the system affects the MVDFA exponent.
- Multiscale MVDFA reveals different properties between Chinese and US stock markets.