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## Change Point Analysis in Stock Market Models

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| THU/BE01<br>16:00–16:20 |
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A classical non-parametric approach to detect possible changes in variance and/or mean in time series are tests based on CUSUM-statistics. Usually, the asymptotic distribution is derived via strong invariance principles, however, it turns out that for Heston's model (among others), these classical invariance principles are not applicable. A different approach is presented, along with applications to the DAX index.

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- [2] I. BERKES, W. PHILIPP: Approximation theorems for independent and weakly dependent random vectors. In: *Annals of Prob.* **7**/1 (1979), 29–54.
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- [4] M CSÖRGÖ, L. HORVÁTH: *Limit Theorems in Change Point Analysis*. Wiley 1997.