

The sequential Cauchy combination test: Revisiting the inference of autocorrelated test statistics in finance^{*}

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Abstract

Liu and Xie (2020) propose the Cauchy combination test for an overall hypothesis. It combines n individual hypotheses for which the test statistics are characterized by sparsity and arbitrary dependency structures. It is not obvious how statements about individual hypotheses are to be made for this procedure. We unravel the combination test to make statements on the elementary hypotheses. It is based on the principle of closed testing and controls the multiple level α . We show the benefits of our approach by revisiting the attenuation bias in the autocorrelated drift-burst z statistics of Christensen, Oomen, and Renò (2020).

Keywords: Cauchy combination test; Drift-bursts; High-frequency; Multiple hypothesis testing

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