

## Procedure of test to compare the tail indices

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**Abstract** We propose a test procedure which compares the extreme value indices of two samples with heavy tail distributions. On a theoretical point of view, we adopt the minimax nonparametric point of view. We exhibit the separating rate between the null hypothesis and the alternative of our procedure. Next, we present a data driven test methodology and we evaluate its performance thanks to an extensive simulation study. As a practical real-life application, we compare the risk behaviors of a panel of different financial data.

**Keywords** Extreme value index · Nonparametric test · Minimax rates