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The asymptotic efficacies and relative efficiencies of various linear rank tests for independence. (English) [Zbl 1232.62069](#)
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Summary: We consider eight general models of independence, the Hájek-Šidák model, the Janssen-Mason model, Konijn's model, Steffensen's model, the Farlie model, the bivariate Gamma distribution, the Mardia model and the Fréchet model. The asymptotic efficacies and relative efficiencies of various linear rank tests are computed. It turns out that the asymptotic power depends heavily on the underlying model. However, for the vast majority of the considered models, the Spearman test is, asymptotically, a good choice.

MSC:

62G10 Nonparametric hypothesis testing
62G20 Asymptotic properties of nonparametric inference

Cited in 1 Document

Keywords:

Spearman test; van der Waerden test; Exponential scores test; Koziol-Nemec test; Gastwirth-test; Long-tail test; Hogg-Fisher-Randles test

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