

Asymptotic Efficiency of the Goodness of Fit Test Based on Extreme K-Spacings Statistic

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Abstract

The Pitman's asymptotic efficiencies (AE) of the goodness-of-fit tests based on higher-order non-overlapping spacings have been considered in the literature. Particularly Jammalamadaka and Wells (1988) have studied the Pitman's AE of the test based on extreme-simple spacings statistics. In this paper we show that test based on extreme higher ordered spacings has higher efficiency in Pitman's sense compared to their counterparts based on simple spacings. It is also shown that the Kallenberg's intermediate AE of such test coincides with its Pitman's AE.

Keywords: Spacings, goodness-of-fit, asymptotic efficiency.

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