Asymptotic efficiencies of the Greenwood's goodness-of-fit test

Sherzod Mirakhmedov and Naeem Muhammad

GIK Institute of Engineering Sciences and Technology, Topi, Pakistan

Abstract

We study the Greenwood statistic, which is sum of squares of the disjoint s-spacings. We extends the known efficiency properties of Greenwood test: (i) in the Bahadur's situation of a fixed alternative to "adjoining" domain of family of strong intermediate alternatives, and (ii) in the Pitman's situation of alternatives convergence to null hypothesis with "extremely" rate to "adjoining" domain of family of intermediate alternatives, which converges to null hypothesis with "not so fast" rate.

Keywords

Goodness-of-fit, Spacings, Asymptotic efficiency, Large deviation probabilities.

1