Grané, A.; **Fortiana, J.**

Maximum correlations and tests of goodness-of-fit. (English) Zbl 1135.62343

Cuadras, Carles M. (ed.) et al., Distributions with given marginals and statistical modelling. Papers presented at the meeting, Barcelona, Spain, July 17–20, 2000. Dordrecht: Kluwer Academic Publishers (ISBN 1-4020-0914-3/hbk). 113-124 (2002).

Summary: Hoeffding's maximum correlation coefficient equals unity when both distributions coincide. This fact suggests a method to test whether the cdf of an iid sequence of random variables is a given F, by computing this coefficient between F and the empirical cdf of the sequence. In this paper we present three instances of actual goodness-of-fit tests derived from this basic principle and we discuss their small- and large-sample properties.

For the entire collection see [Zbl 1054.62002].

MSC:

62H20 Measures of association (correlation, canonical correlation, etc.)
62G10 Nonparametric hypothesis testing
62G30 Order statistics; empirical distribution functions

Keywords:

L-statistics; testing uniformity; testing exponentiality; power study