A semiparametric estimation procedure for multi-parameter Archimedean copulas based on the L-moments method

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Abstract

A new semiparametric estimation method for multi-parameters Archimedean copulas based on the L-moments theory is proposed. Consistency and asymptotic normality of the defined estimator are established. Extensive simulation study to compare estimators based on the L-moments, the maximum likelihood and the measures of concordance is carried out. We concluded that this method is quick and does not use the density function and therefore no boundary problems arise.

Keywords : L-moments; Copulas; Dependence; Concordance measures; Semiparametric estimation.

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