

Abstract: The empirical beta copula is a simple but effective smoother of the empirical copula. Because it is a genuine copula, from which, moreover, it is particularly easy to sample, it is reasonable to expect that resampling procedures based on the empirical beta copula are expedient and accurate. In this paper, after reviewing the literature on some bootstrap approximations for the empirical copula process, we first show the asymptotic equivalence of several bootstrapped processes related to the empirical copula and empirical beta copula. Then we investigate the finite-sample properties of resampling schemes based on the empirical (beta) copula by Monte Carlo simulation. More specifically, we consider interval estimation for some functionals such as rank correlation coefficients and dependence parameters of several well-known families of copulas, constructing confidence intervals by several methods and comparing their accuracy and efficiency. We also compute the actual size and power of symmetry tests based on several resampling schemes for the empirical copula and empirical beta copula.