Genest, Christian; **Werker, Bas J. M.**

Conditions for the asymptotic semiparametric efficiency of an omnibus estimator of dependence parameters in copula models. (English) Zbl 1142.62330

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). 103-112 (2002).

Summary: *D. Oakes* [Multivariate survival distributions. Nonparametric Stat. 3, No. 3–4, 343–354 (1994)] described in broad terms an omnibus semiparametric procedure for estimating the dependence parameter in a copula model when the marginal distributions are treated as (infinite-dimensional) nuisance parameters. The resulting estimator was subsequently shown to be consistent and normally distributed asymptotically. Conditions under which it is also semiparametrically efficient in large samples are given. While these requirements are met for the normal copula model, it is argued that this is an exception rather than the norm.

For the entire collection see [Zbl 1054.62002].

MSC:

62G05 Nonparametric estimation
62G20 Asymptotic properties of nonparametric inference
62H99 Multivariate analysis