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Some new properties of quasi-copulas. (English) Zbl 1135.62339

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). 187-194 (2002).

Summary: The notion of a quasi-copula was introduced by *C. Alsina* et al. [Stat. Probab. Lett. 17, No. 2, 85–89 (1993; Zbl 0798.60023)] to characterize operations on distribution functions that can or cannot be derived from operations on random variables. *C. Genest* et al. [J. Multivariate Anal. 69, No. 2, 193–205 (1999; Zbl 0935.62059)] characterize the quasi-copula concept in simpler operational terms. We present a new simple characterization and some properties of these functions, all of them concerning the mass distribution of quasi-copulas. We show that the features of this mass distribution can be quite different from that of a copula.

For the entire collection see [Zbl 1054.62002].

MSC:

62H05 Characterization and structure theory for multivariate probability distributions; copulas

60E05 Probability distributions: general theory

62E17 Approximations to statistical distributions (nonasymptotic)

Keywords:

Lipschitz condition