Semicopulas: Characterizations and Applicability

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Abstract: We characterize some bivariate semicopulas and, among them, the semicopulas satisfying a Lipschitz condition. In particular, the characterization of harmonic semicopulas allows us to introduce a new concept of depedence between two random variables. The notion of multivariate semicopula is given and two applications in the theory of fuzzy measures and stochastic processes are given.