

Introduction to vines and some recent applications

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Copulas are used to characterize dependency among several components and are used to build multivariate models for financial and insurance data. Standard classes such as the elliptical and Archimedean copulas are restricted in their dependency pattern such as symmetry, tail independence or exchangeability. In contrast the flexible class of regular vine (*R*-vine) copula models can accommodate tail asymmetry and allow for different dependency patterns for different pairs of variables. *R*-vine copulas (www.vine-copula.org) are based on a pair-copula construction (PCC) using only bivariate copulas as building blocks. In this talk, I will introduce this class of copulas and discuss their estimation and model selection. I will also illustrate them with some recent applications involving systemic risk simulations.

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