

A copula-based risk aggregation model

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A flexible approach is proposed for risk aggregation. The model consists of a tree structure, bivariate copulas, and marginal distributions. The construction relies on a conditional independence assumption whose implications are studied. A procedure for selecting the tree structure is developed using hierarchical clustering techniques, along with a distance metric based on Kendall's tau. Estimation, simulation, and model validation are also discussed. The approach is illustrated using data from a Canadian property and casualty insurance company.

This is joint work with Christian Genest.

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