

Copulas and Extreme Behaviour

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Abstract

This talk is about the extremal behaviour of the sum of (dependent) identically distributed random variables X_1, \dots, X_d . This can be of interest for insurance companies. It shall cover the behaviour of $P(\sum_{i=1}^d X_i < -u)$ and $E(\sum_{i=1}^d X_i | \sum_{i=1}^d X_i < -u)$ (Expected Shortfall), for large u (Value-at-Risk). This is done by modelling the dependency by way of copulas. Therefore I will give a short introduction about copulas and some of their (dis)advantages.