

The geometry of tail dependence
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The stable tail dependence function (stdf; Huang 1992, Drees and Huang 1998) is a well-known dependence function in multivariate extreme value analysis that appears naturally in different contexts (e.g. as part of MGEVs or MGPDs). Ressel (2013) gave the first complete set of conditions that a function has to fulfill in order to be a stdf.

In this talk I will show how such conditions can be reinterpreted geometrically and in a spatial context and how this interpretation may lead to new insights and connections between extreme value theory, stochastic geometry and the theory of risk measures.