

1096-62-2066

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Extreme value theory with operator norming.

We propose a new approach to multivariate extremes using operator norming. We briefly introduce some limit theorems for the angular extremes of multivariate heavy tailed data. Operator norming allows us to handle in a unified way distributions with different tail exponents in different directions. We then present a method for simulating the limit process and a parametric bootstrap type procedure for testing for the need of operator norming. The statistical test is illustrated over simulated and real data sets. (Received September 17, 2013)