



Department of Decision Sciences

Statistics Seminar

Empirical likelihood based testing for multivariate regular variation

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Abstract

Multivariate regular variation is a property ensuring regularity in the tail of a multivariate distribution function and it is often encountered in the field of multivariate extreme value theory. We introduce a localised empirical likelihood based test for multivariate regular variation. We provide the asymptotic distribution of the test statistic, the critical values of the test and illustrate its finite-sample behaviour on simulated and real data examples.