

Department of Decision Sciences

Statistics Seminar

Asymptotically unbiased and robust estimation of tail indices

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12:30pm Room 3-E4-SR03 Via Röntgen 1 Milano

Abstract

Extreme value theory in the univariate framework has been extensively studied in the literature, particularly in the Fréchet domain of attraction. In this talk, we focus on this framework and we propose an asymptotically unbiased and robust estimator of the tail index. The asymptotic properties of our estimator have been established and its finite sample behaviour illustrated on a small simulation study. An extension to the bivariate framework is also proposed. This talk is based on two papers, the first one in collaboration with Goedele Dierckx and Yuri Goegebeur and the second one with Christophe Dutang and Yuri Goegebeur.