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*Bootstrapping the Robust Estimates of the Mean Vector for Multivariate Heavy-Tailed Distributions with Different Indices of Stability*

We consider a robust estimation of the mean vector for a sequence of independent and identically distributed observations in the domain of attraction of a stable law with different indices of stability  $(\alpha_1, \dots, \alpha_p)$  such that  $1 < \alpha_i \leq 2$ ,  $i = 1, \dots, p$ . The suggested estimator is asymptotically normal depending on some unknown parameters. We apply an asymptotically valid bootstrap to construct confidence intervals and confidence regions for the mean vector.

Key words: Stable process; M-estimation; Confidence interval; Bootstrap.