Robust PCA and ICA for heavy tailed distributions

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Principal Components Analysis (PCA) is a ubiquitous tool for analyzing multivariate data in a large range of applications. Independent Component Analysis (ICA) is a technique for decomposing a multivariate signal into additive subcomponents. Both methods perform poorly in the presence of heavy tailed noise. We present robust methods of both procedures that work well with heavy tailed data. **Keywords:** PCA; ICA; stable distribution, robust methods.