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Sparse Non Gaussian Component Analysis by Semidefinite Programming

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Sparse non-Gaussian component analysis (SNGCA) is an unsupervised method of extracting a linear structure from a high dimensional data based on estimating a low-dimensional non-Gaussian data component. In this paper we discuss a new approach to direct estimation of the projector on the target space based on semidefinite programming which improves the method sensitivity to a broad variety of deviations from normality. We also discuss the procedures which allows to recover the structure when its effective dimension is unknown.

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