

Projection-Pursuit Based Principal Component Analysis: a Large Sample Theory

Jian Zhang

Institute of Mathematics, Statistics and Actuarial Science, University of Kent, Canterbury, Kent CT 2 7NF, U.K.; Institute of Systems Science, AMSS, Chinese Academy of Sciences, Beijing 100080, China

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摘要 The principal component analysis (PCA) is one of the most celebrated methods in analysing multivariate data. An effort of extending PCA is projection pursuit (PP), a more general class of dimension-reduction techniques. However, the application of this extended procedure is often hampered by its complexity in computation and by lack of some appropriate theory. In this paper, by use of the empirical processes we established a large sample theory for the robust PP estimators of the principal components and dispersion matrix.

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