ROBUST ESTIMATION OF LOCATION AND SCATTER, BASED ON SUBSET SELECTION PROCEDURE WITH APPLICATION IN DISCRIMINANT ANALYSIS

K. MAHESH

Department of Statistics, Government Arts College, Udumalpet, Tamil Nadu, India

ABSTRACT

Multivariate statistical techniques are most widely used in basic sciences research. These techniques, such as classification and data reduction methods, mainly rely on the two estimators, location and scatter. The sample mean and covariance matrix is calmer, money is used as estimator. But, they are extremely sensitive to elliptical distribution with heavy tails. In this context, many robust alternatives are entrenched. The accuracy of these robust estimators mainly based on '*h*' data points out of *n*. This paper suggests a robust procedure of selecting '*h*' data points, in order to get closely three estimates. It demonstrates the efficiency of the proposed procedure, by applying it in classification method under a real environment.

KEYWORDS: Location and Scatter-Robust Estimators - Discriminant Analysis.