



Four Problems of the Discriminant Analysis

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There are four problems of the discriminant analysis. We discuss the fourth problem. Fisher formulated the linear discriminant function (LDF) but never formulated the SEs of error rate and discriminant coefficient by the traditional approach. Both 95% confidence intervals are obtained by the “k-fold cross validation for small sample” method. We can evaluate seven LDFs and conclude the mean of error rates of Revised IP-OLDF is the best in the validation samples.

Keywords: k-fold cross validation; 95 % C.I.; error rate; discriminant coefficient; Revised IP-OLDF; SVM; logistic regression; Fisher’s LDF.