

Projection Pursuit for Exploratory Supervised Classification

by

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February 10, 2004

ABSTRACT

In high-dimensional data, one often seeks a few interesting low-dimensional projections which reveal important aspects of the data. Projection pursuit is a procedure for searching high-dimensional data for interesting low-dimensional projections via the optimization of a criterion function called the projection pursuit index. Very few projection pursuit indices incorporate class or group information in the calculation, and hence can be adequately applied to supervised classification problems. We introduce new indices derived from linear discriminant analysis that can be used for exploratory supervised classification.