

Tutorial 7

The R package “e1071” has the implementation of SVM with a number of kernel choices. Try to classify Ionosphere dataset from “mlbench” package with:

- (1) Linear kernel, polynomial kernel with different degrees, and radial basis kernel.
- (2) Benchmark your classification accuracy using 10-fold cross-validation.
- (3) Repeat the above classification using LDA with 10-fold cross-validation.
- (4) Comment on the linear separability of the data based on the classification result using SVM with different kernels and LDA.