

Devroye, Luc; Györfi, László; Lugosi, Gábor

A probabilistic theory of pattern recognition. (English) Zbl 0853.68150
Applications of Mathematics. 31. New York, NY: Springer. xv, 636 p. (1996).

Non-parametric estimators and bounds for classification rules, k -nearest neighbor rules, and their consistency; error estimation – Vapnik-Chervonenkis theory about convergence for all data distributions; shatter coefficients and generalized linear discriminants, parametric classification. Tree classifiers, BSP trees and splitting criteria. Data dependent partitioning, and resubstitution estimator. Potential kernel functions, automatic kernels and nearest neighbor rules. Neural network classifiers, Hypercube classifiers, Hypercube classifiers, Problems and exercises attached to each chapter.

Reviewer: [L.F.Pau \(Alvsjo\)](#)

MSC:

[68T10](#) Pattern recognition, speech recognition

[68-02](#) Research exposition (monographs, survey articles) pertaining to computer science

Cited in **2** Reviews
Cited in **393** Documents

Keywords:

[potential kernel functions](#); [neural network](#); [hypercube](#); [BSP trees](#)