

Probabilistic and Optimization Approaches in Classification

Erwan Le Pennec

The goal of this talk is to present, through the binary classification example, the two main learning strategies: the one based on probabilistic modelization and the one based on a cost optimization. After a short introduction to statistical learning, the main techniques used in those frameworks will be described and illustrated through numerical experiments in R. A emphasis will be put on the core issue of the data dependent selection of a good strategy.