

Seminar.

Supervised classification of network data

Networks represent a convenient model for many scientific and technological problems. From power grids to biological processes and functions, from financial networks to chemical compounds, the representation of case studies with graphs enables the possibility to highlight both topological and qualitative characteristics. In this work, we are interested in the supervised classification models for data in form of networks. Given two or more classes whose members are networks, we want to build a mathematical model to classify them. We focus on networks with labeled nodes and weighted edges. We define distances between networks and we build a classification model. We provide empirical results on datasets of biological interest providing details on graphical model selection