

Unsupervised Learning with Communication Networks: From Stochastic Block Models to Deep Latent Variables Models

Dr. Charles Bouveyron
Université Côte d'Azur, France

Abstract

Communication networks such as emails or social networks are now ubiquitous and their analysis has become a strategic field. In many applications, the goal is to automatically extract relevant information by looking at the nodes and their connections. Unfortunately, most of the existing methods focus on analysing the presence or absence of edges and textual data is often discarded. However, all communication networks actually come with textual data on the edges. In this talk, we will cover a decade of research proposing solutions to analyse such networks, ranging from stochastic block models to deep latent variables models.