Double sparsity in high-dimensional Gaussian mixture estimation and clustering
Subject Overview

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1   Introduction

The broad goal of this thesis is to tackle a clustering problem in the scope of mixtures model framework. More precisely, we will study the clustering of points drawn from high-dimensional Gaussian mixtures distributions.
Thus, in the first part of this section we study the gaussian mixture model and the second part we describe the well know algorithm Expectation-Maximization (EM) and the limitations in high-dimensional setting.

1.1   The Gaussian mixture model

1.2   The EM Algorithm

2   A structural analysis on Σ approach

2.1   Graphical Lasso

2.2   Column-Wise Lasso

3   Comments

4   References