# New perspectives for robust estimation in the normal mixture model

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## 1   Abstract

The robust estimation in the normal mixture model based on adaptive k-cells was introduced by the authors in Cuesta-Albertos et al. (2004). This procedure is based on the trimmed k-means method, giving a preliminar choice of k balls of same radious, followed by a controlled and adapted enlarging of these k cells obtained through maximum likelihood estimation. In this work we consider improvements of the method based on a different initial choice of the k-cells (as suggested in Gallegos et al. 2005) as well as variations associated to partial knowledge or under a gross error model.

## References

Cuesta-Albertos, Matran and Mayo-Iscar (2004). Estimators based in adaptively trimming cells in the mixture model. Submitted.

Gallegos and Ritter (2005). A Robust method for cluster analysis. To appear in Ann.Stat.