COMPUTATIONAL STATISTICS AND DATA ANALYSIS
CALL FOR PAPERS
4th Special Issue on
ADVANCES IN MIXTURE MODELS
http://www.elsevier.com/locate/csda

We are inviting submissions for a special issue of Computational Statistics and Data Analysis dealing with Advances in Mixture Models.

Mixture models experience sustainable popularity over recent years. Not only that they are natural models to adjust for unobserved or latent heterogeneity, they are fundamental cornerstones in many areas in statistics such as smoothing, empirical Bayes, likelihood based clustering, or latent variable analysis among others. As semi-parametric models they embody an excellent compromise in the trade-off between imposed model structure and freedom in model adaptation to the data. However, mixture models experience a number of difficulties. The likelihood may not be bounded, and, even if it were, the global maximum might not be a good choice. Algorithmic solutions are nearly almost required and algorithms such as the EM algorithm is experiencing numerous problems such as the choice of initial values or using an adequate stopping rule. The number of components problem and model selection add one more to the many areas of interest. Diverse application areas such as capture-rapture approaches or clustering of gene expression data have been added to numerous existing application areas such as disease mapping or meta-analysis. There is also a growing body of work on mixtures of (generalised) regression models. Topics of interest include, but are not limited to, the following:

Key areas are:

- Algorithms: Starting and Stopping Rules
- Testing in Mixture Models
- Mixtures with Unbounded Likelihoods
- Identifiability Problems
- Multivariate Mixtures
- Robustness of Mixture Estimation
- Mixture Models for Clustering
- Mixtures of (Generalized) Linear Models
- Problems in Bayesian Approaches for Mixtures
- Mixtures of Parametric Mixtures
- Mixtures of Profile Likelihoods

The papers should have a computational or advanced data analytic component in order to be considered for publication. Authors who are uncertain about the suitability of their papers should contact the special issue editors. All submissions must contain original unpublished work not being considered for publication elsewhere. Submissions will be refereed according to standard procedures for Computational Statistics & Data Analysis. Information about the journal can be found at http://www.elsevier.com/locate/csda.

The deadline for submissions is **15 November 2017**. However, papers can be submitted at any time; and, when they have been received, they will enter the editorial system immediately.

Papers for the special issue should be submitted using the Elsevier Electronic Submission tool EES: http://ees.elsevier.com/csda. In the EES please choose the special issue on *Advances on Mixture Models* and the Co-Editor responsible for the special issues.

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