

## Statistical analysis of mixtures with applications to DNA microarray data

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We consider semiparametric and nonparametric estimation problems for finite mixture models (FMM). In the classical FMM the observations are i.i.d. with CDF  $\sum_{i=1}^M p^i F_i(x)$ , where  $F_i$  are the CDFs of mixture components,  $p^i$  are the mixing probabilities (probabilities to observe the  $i$ -th component). In the model of mixture with varying concentrations (MVC) the mixing probabilities  $p^i = p_j^i$  are different for different observations. Applications of both FMM and MVC will be discussed to the analysis of DNA-microarray datasets.

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