The support reduction algorithm for computing nonparametric M-estimators in mixture models

We will introduce the general concept of mixture models and give a few of the many interesting examples of those problems: deconvolution problems, estimating a convex density based on iid observations, estimating a monotone density based on interval censored observations... Based on the general structure of mixture models, we outline the class of “vertex directionmethods that can be used to compute nonparametric M-estimators. As a special case we discuss the Support Reduction (SR) algorithm described in (1).

(1) Groeneboom, P., Jongbloed, G. and Wellner, J.A. “Vertex direction algorithms for computing nonparametric function estimates in mixture models“. Manuscript in progress.