

Generalized self-consistency algorithms for mixture models

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Abstract: A generalization of the concept of mixture, self-consistency, expectation and imputation and associated Quasi-EM algorithms is presented and applied to multinomial logistic model, a family of univariate survival models, and multivariate survival models motivated by frailties. A subclass of Archimedian copula models is identified that is characterized by monotonically convergent Quasi-EM algorithms. A connection to recently proposed MM algorithms that extend the EM concept without using missing data arguments is established.