

Bayesian Analysis of Mixture Weibull Distribution

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ABSTRACT

The Weibull distribution has applications in life-testing problems and survival analysis. Bayesian analysis of finite mixtures of Weibull distribution has been considered. In these scenarios analytical methods cannot be used since the likelihood function is highly nonlinear. In this paper, we have been proposed numerical methods for Bayesian analysis of mixture Weibull distribution, which are based on the hierarchical representation of Weibull mixtures.

Key Words: Survival analysis, likelihood function, Gibbs sampling, highest posterior density interval,