

SHRINKAGE ESTIMATION METHOD OF PARAMETER WEIBULL DISTRIBUTION

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ABSTRACT

Consider the Weibull distribution. The parameters of this distribution are estimated by the maximum likelihood method and Bayes method. In this study we present shrinkage estimator between maximum likelihood $\hat{\theta}_M$ and Bayes estimators $\hat{\theta}_B$ that make mean square error (MSE) less than other standard method. Using linear combination between maximum likelihood method and Bayes method to obtain a new estimator $\hat{\theta}$ then simulation study will used to compare between shrinkage estimator, Maximum likelihood estimator and Bayes estimator to find the best (less mean square error) with different sample size and Matlab program.

KEYWORDS: Weibull Distribution, Shrinkage Estimator, Bayes Estimator, Maximum Likelihood Estimator, Simulation