Bayes Estimates of Reliability Function of Exponential Distribution Under Different Prior Distributions

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ABSTRACT

Bayesian analysis of the exponential model based on life tests that are terminated at pre assigned time points or after pre assigned number of failures, has been developed. For the prior distribution of the parameter, uniform inverted gamma and exponential densities have been considered. The role of prior quasi-densities when a life tester has no prior information has been illustrated and it has been observed that the reliability estimate for a diffuse prior which is uniform over the entire positive real line closely resembles the classical MVU estimate obtained.