Shrinkage estimation of the lifetime parameters in the Rayleigh model using an empirical Bayesian approach[*]

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Abstract

Based on generalized right censored data this paper presents empirical Bayes shrinkage estimators for some lifetime parameters using the inverted gamma distribution as prior distribution for the Rayleigh parameter. These estimators are derived using both the squared error loss function and Varian's asymmetric linear–exponential (Linex) loss function and compared with the minimum variance unbiased estimators in terms of mean squared error.

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