On Bayesian One-sample Prediction of the Generalized Pareto Distribution based on Generalized Order Statistics

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 132
Number 4

Year of Publication: 2015

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Abstract

Bayesian predictive functions for future observations from a generalized Pareto distribution based on generalized order statistics are obtained. Two cases are considered unknown one parameter and unknown two parameters. We also consider two cases fixed sample size and random sample size. The Bayesian predictive functions are specialized to ordinary order statistics, progressive type II censoring and upper record values. Examples are calculated for the lower and the upper bounds for the future observation based on ordinary order statistics, progressive type II censoring and upper record samples.

References


**Index Terms**

Computer Science  
Signal Processing

**Keywords**

Bayesian prediction, generalized order statistics, generalized Pareto distribution, ordinary order statistics, predictive function, random sample size.