

The Generalized Pareto Distribution as a Model for Sequential Order Statistics

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Abstract : In this article, sequential order statistics (SOS) censoring type II samples coming from the generalized Pareto distribution are considered. Maximum likelihood (ML) estimators of the unknown parameters are derived on the basis of the available multiple SOS data. Necessary conditions for existence and uniqueness of the derived ML estimates are given. Due to complexity in the proposed likelihood function, a useful re-parametrization is suggested. For illustrative purposes, a Monte Carlo simulation study is conducted and an illustrative example is analysed.

Keywords : bayesian estimation, generalized pareto distribution, maximum likelihood estimation, sequential order statistics

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