## عنوان مقاله:

Inference for the Pareto Type-I distribution using upper record ranked set sampling scheme

## محل انتشار:

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## خلاصه مقاله:

In some real-life situations, we will face restrictions of time and sample size which cause a researcher to not have access to all of the data. Therefore, it is valuable to study the estimation of parameters based on information of available data. In such situations, using appropriate sampling schemes, to more efficient estimators are important. The aim of the present paper is to study the Bayes estimators of parameters of the Pareto type-I model under different loss functions and compare among them as well as with the classical estimator named maximum likelihood estimator based on upper record ranked set sampling scheme. Here the informative Gamma prior is used as the conjugate prior distribution for finding the Bayes estimator. We also used symmetric loss functions such as squared error loss function and asymmetric loss functions such as linear-exponential loss function. We present the analysis of a Monte Carlo simulation to compare the performance of the estimators with respect to their risks (average loss over sample space) based on upper record ranked set sampling. Finally, one real data set is analyzed to illustrate the performance of the proposed estimators.

## کلمات کلیدی:

Pareto type-I model, Bayesian estimator, Upper record ranked set sampling, Loss function, Maximum likelihood estimator