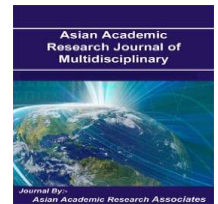




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**ON CUMULATIVE RESIDUAL ENTROPY OF PARETO FAMILY AND ITS FIRST  
ORDER STATISTICS**

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**Abstract**

Rao et al. (2004) introduced cumulative Residual Entropy(CRE) as a new measure of uncertainty that is an alternative to Shannon entropy(1948) in that the probability density function is replaced by survival(reliability) function. Also, Yari and Borzadaran (2010) presented Shannon entropy for Pareto-types distributions. In this paper, cumulative residual entropy(CRE) is obtained for Pareto-types and related distributions also their first order statistics using some special techniques through Integration.

**Key words:** Cumulative residual entropy, Pareto distribution, Gamma function, Beta function, First order statistics

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