

## Comparison of two Sampling Schemes for Extracting Record Data with Regard to Fisher Information

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**Abstract:** A sequence of observations in which only successive minimum (maximum) values are observed are called record values. One sampling scheme for generating record values is: "Data are obtained via the inverse sampling scheme, where items are presented sequentially and sampling is terminated when  $n$ th record is observed". In this plan, the expectation of inter record times are infinite and in practice the number of records are few. Under the assumption that the process of observing record values can be replicated, one may consider the repetition of inverse sampling plan to achieve the specific number of records. In the latter scheme, we assume  $m$  independent samples are obtained sequentially from the parent distribution and only record data are observed. Two sampling (consecutive and repetition) plan are compared with regard to Fisher information contained in the extracted record data and general results are obtained. The proposed procedure is illustrated by considering several life time distributions such as Exponential, Burr XII and Weibull.

**Keywords:** Scale Family, Shape Family, Upper (Lower) Record, Burr Distribution.