

## **[6A:1] Results on Residual Rényi Entropy under Progressive Censoring**

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This paper explores properties of the residual Rényi entropy (RRE) of progressively type II censored samples. The RRE of  $s$ th order statistic from a continuous distribution function is represented in terms of the RRE of the  $s$ th order statistic from uniform distribution. In general, we do not have a closed form for RRE of order statistics in most of distributions. This gives us a motivation for obtaining some bounds for RRE in progressively censored samples. In addition, Several kernel type estimators are proposed. Some properties of these estimators are also studied.

*Note:* Joint work with Fatemeh Yousefzadeh (University of Birjand).

## **[6A:2] An EM Algorithm for Estimating the Parameters of the Generalized Exponential Distribution under Unified Hybrid Censored Data**

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The unified hybrid censoring is a mixture of generalized Type-I and Type-II hybrid censoring schemes. This article presents the statistical inferences on Generalized Exponential Distribution parameters when the data are obtained from the unified hybrid censoring scheme. It is observed that the maximum likelihood estimators can not be derived in closed form. The EM algorithm for computing the maximum likelihood estimators is proposed. We calculated the observed Fisher information matrix using the missing information principle which is useful for constructing the asymptotic confidence intervals. Simulations studies are performed to compare the performances of the estimators obtained under different schemes. Finally, a real data set has been analyzed for illustrative purposes.

*Note* Joint work with Masoumeh Izanlo (Ferdowsi University of Mashhad).