SHARP BOUNDS ON THE EXPECTATIONS OF LINEAR COMBINATIONS OF $k$th RECORDS EXPRESSED IN THE GINI MEAN DIFFERENCE UNITS

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Abstract: We describe a method of calculating sharp lower and upper bounds on the expectations of linear combinations of $k$th records expressed in the Gini mean difference units of the original i.i.d. observations. In particular, we provide sharp lower and upper bounds on the expectations of $k$th records and their differences. We also present the families of distributions which attain the bounds in the limit.

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