Sharp bounds on the expectations of linear combinations of kth records expressed in the Gini mean difference units

Tomasz Rychlik

Institute of Mathematics, Polish Academy of Sciences

We describe a method of calculating sharp lower and upper bounds on the expectations of linear combinations of kth 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 kth records and their differences. We also present the families of distributions which attain the bounds in the limit. This is a joint work with Paweł Marcin Kozyra.