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K-TH RECORD VALUES FROM DAGUM DISTRIBUTION AND CHARACTERIZATION

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Abstract

In this study, we gave some new explicit expressions and recurrence relations satisfied by single and product moments of k-th lower record values from Dagum distribution. Next we show that the result for the record values from the Dagum distribution can be derived from our result as special case. Further, using a recurrence relation for single moments and conditional expectation of record values we obtain characterization of Dagum distribution. In addition, we use the established explicit expression of single moment to compute the mean, variance, coefficient of skewness and coefficient of kurtosis. Finally, we suggest two applications.

Keywords: sample, order statistics, lower record values, single moments, product moments, recurrence relations, Dagum distribution, characterization.

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