
Summary: In this paper, we study the concomitants of $m$-dual generalized order statistics (and consequently $m$-generalized order statistics) from Huang-Kotz Farlie-Gumble-Morgenstern bivariate distribution as an extension of several recent papers. Some well-known information measures, the Shannon entropy, the Kullback-Leibler distance and the Fisher information number, are derived. Moreover, some useful recurrence relations between single and product moments of concomitants are obtained. Finally, an application of these results is given for bivariate generalized exponential distribution.

MSC:
62B10 Statistical aspects of information-theoretic topics
62G30 Order statistics; empirical distribution functions
62H10 Multivariate distribution of statistics

Keywords:
concomitants; generalized order statistics; Huang-Kotz FGM family; Kullback-Leibler distance; Shannon’s entropy; Fisher information number

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References:
[17] Haseeb, A.; Nayabuddin, N., Concomitants of dual generalized order statistics from Farlie Gumbel Morgenstern Type bivariate


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