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## ON THE MOMENTS OF THE WEIGHTED GENERALIZED EXPONENTIAL DISTRIBUTIONS

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ABSTRACT. In 1998 Gupta, R.C., Gupta, P.L., and Gupta, R.D. have introduced the exponentiated exponential distribution (or the generalized exponential distribution) as a generalization of the standard exponential distribution. The mathematical properties of this distribution have been studied in detail by Gupta and Kundu (2001). The aim of this paper is to establish some relations concerning the moments of the generalized exponential distribution and the similar moments of the weighted generalized exponential distribution.

## References

- [1] Gupta, R.C., Gupta, P.L., and Gupta, R.D. Modeling failure time data by Lehman alternative, Comm. Statist. Theory Methods, 27,(1998), 887-904.
- [2] Gupta, R.D. and Kundu, D., Exponentiated exponential family: an alternative to gamma and Weibull distributions. Biom. J., 43, (2001), 117-130.
- [3] Gupta, R.D. and Kundu, D., Discriminating between Weibulland generalized exponential distributions. Comput. Stat. Data. Anal., 43 (2003) 179-196.
- [4] Patil, G. P. and Rao, C.R. . Weighted distributions: a survey of their application. In P.R.Krishnaiah (Ed.), Applications of statistics (1997), 383-405.
- [5] Schervish, M.J., Theory of statistics, (1963), John Wiley & Sons, Inc., New York, London.

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