International J. of Math. Sci. & Engg. Appls. (IJMSEA)
ISSN 0973-9424, Vol. 7 No. I (January, 2013), pp. 413-423

LEHMANN-TYPE WEIGHTED LAPLACE DISTRIBUTION

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Abstract

In this paper, we propose a distribution called Lehmann-type weighted Laplace distribution with three parameters. This distribution is a skewed distribution with a shape parameter α. This parameter controls the skewness of the distribution. The distribution function, survival function, hazard function, moments and characteristic functions are obtained. The parameters are estimated using profile likelihood method. The empirical distribution function statistics A^2, the Anderson Darling test statistic, is used for testing the goodness of fit for the distribution.

Key Words : *Lehmann-type weighted Laplace Distribution, Shape parameter, Profile likelihood estimator, Anderson-Darling statistic.*

AMS Subject Classification : 60EXX, 60E05.

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