

SOME PROPERTIES OF FIVE PARAMETERS GENERALIZED LOGISTIC DISTRIBUTION AND ITS APPLICATION TO QUANTA RESPONSE DATA

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ABSTRACT

In this paper, we derived a five parameters generalized logistic distribution, an extended form of the reversed generalized logistic distribution, several properties of this distribution such as the moments, the survival and hazard functions are examined. The degree of approximation of this distribution to its limiting distribution is examined. Approximation of the gamma distribution using this distribution is discussed. Furthermore, Graphical and multivariate properties are briefly discussed. Finally, application of this distribution in death and census data (a quanta response data) is presented.