The exponential uniform distribution and its applications

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Abstract. This paper introduces a general class of distributions generated from the truncated exponential variable. A special case of this family is the exponential uniform (EU) distribution is discussed. We provide the closed form of the moment generating function (mgf), the characteristic function, the moments and we obtain the exact estimation of parameters using the maximum likelihood method. The applications of this distribution is illustrated by fitting it to two real data sets and comparing the result to previously used distribution.

Keywords. Exponential uniform distribution, moment generating function, moments, maximum likelihood estimators