

Comparison of Fitting Methods for the Generalized Lambda Distribution and Development of Improved Fitting Methods

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Abstract

Generalized Lambda Distribution (GLD) is a flexible distribution that can represent a wide variety of distributional shapes. This property of the GLD has made it very popular in simulation input modeling in recent years and several fitting methods for estimating the parameters of the GLD have been proposed. Our primary goal is to investigate the performances of these fitting methods and provide a guideline to the simulation practitioner about when to use each method. Another goal of this study is to further improve the existing methods in terms of the computational time and the quality of the parameter estimates.