

This bachelor thesis deals with the research and comparison of two proposed two-parameter generalizations of the exponential distribution. It studies the basic properties of densities and gives relations for moments of the first four orders. Furthermore, parameter estimators are derived using the moment method and the maximum likelihood method. Subsequently, a simulation study is performed, on which differences between the methods used can be observed. At the end of the work, an example of approximation of data densities from real-world situations is presented using generalized exponential distributions under investigation.