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Summary

A comparison between the ordinary least-squares estimator and the weighted least-squares estimator when the data set arises from the standard extreme value distribution is provided. Probability plot of the extreme value distribution is applied. A goodness-of-fit test of the standard extreme value distribution is introduced. The percentage points of the test statistic are investigated. The results of power study for the test statistic under various alternatives shows that the proposed test statistic serves as well as the competitions in most situations.

Some key words: mean and variance-covariance of order statistics; probability plot; standard extreme value distribution; weighted least-squares estimator.