

Review of the manuscript  
'Different estimation methods and validation  
for the extension exponential distribution'  
by Nouadri R. and Seddik-Ameur N.

The manuscript deals with statistics of the extension exponential distribution. In the first half of the manuscript, the authors consider, along with maximum likelihood estimates, other estimates for this two-parameter distribution. But the maximum likelihood estimates, although they do not have an explicit form, are easily computable, and the authors themselves actively use them and compare them with other estimates. Some other estimates for some sample sizes have proven to be more successful than the MLE, but the difference is well within the random spread in a stochastic simulation of 1000 samples. The second part of the manuscript is more interesting. The authors test the hypothesis that the data fit this two-parameter distribution based on the approach of M. S. Nikulin (1973), which nontrivially modifies the chi-square statistics, and show that this approach works really well. An example with real data illustrates the method.

The work contains only applications of known theorems to a specific distribution. There are no statements that could be called theorems. Therefore, I do not recommend its publication in a mathematical journal. I recommend that authors submit their article to a data processing journal.

Reviewer