Statistical simulation for the Min Poisson-Lomax distribution

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Abstract

In this work it is proposed and tested the simulation's algorithm for the Min Poisson-Lomax (MinPoiL) distribution. This distribution has been introduced in paper (2016, [1]) and treated in a uniform manner using power series distributions class (PSD). This study is intended as a completion of the research by Al-Zahrani and Sagor (2014, [2]), targeting the distribution of the random variable $\min\{Y_1, Y_2, \ldots, Y_Z\}$, where $Z \sim Poisson(\lambda)$, $\lambda > 0$ and $Y_1, Y_2, \ldots, Y_Z$ are independent random variables, Lomax distributed. The above mentioned algorithm it was implemented by means of Eclipse SDK programming environment.

Key words: power series distribution, Lomax distribution, Poisson distribution, distribution of the minimum.
2000 AMS subject classifications: 60K10, 62N05.

References

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