

Estimation Procedure of Competing Risk Data from Inverted Exponential Distribution

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ABSTRACT

In some applications of reliability analysis, the subjects cannot fail from just one certain type of event, but are under risk of failing from two or more mutually exclusive types of event. In this paper, we consider the classical inference of the unknown parameters of competing risks data, when the lifetime distribution follows the inverted exponential distribution. We find the maximum likelihood estimator of the parameters with a proper numerical integration method. The asymptotic confidence intervals, boot-p and boot-t confidence intervals are performed here. The results are illustrated with the help of simulation study.

Keywords: Competing Risk, Maximum Likelihood Estimator, Inverted Exponential Distribution.