Recent directions in testing exponentiality: the right-censored data case

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Recently the characterizations of distributions have become a very powerful tool for the construction of goodness of fit tests. However, most of such tests have been designed for complete i.i.d. samples.

Here we introduce the adaptation of several recently proposed classes of characterization based exponentiality tests for the case of the randomly right-censored data and present their limiting and small sample properties. The results of a wide empirical study can be used as a benchmark for future tests proposed for this kind of data. In addition, we present an imputation procedure that can serve as an alternative approach to adaptation proposal.