Computing mean residual lifetime in reliability shock models

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Shock models are of special interest in reliability theory and engineering applications. Reliability properties of systems under shock models have been widely studied in the literature. The concept of mean residual lifetime is an important reliability characteristic to elicit information about dynamic behavior of systems. In this work, we propose a method to compute the mean residual lifetime of a system under various shock models such as cumulative shock model, extreme shock model, run shock model, and mixed shock models.

Keywords: Mean residual lifetime; Shock model