

A Sequential Order Statistics Approach to Step-Stress Testing

Udo Kamps

Institute of Statistics
RWTH Aachen University
52056 Aachen
Germany
udo.kamps@rwth-aachen.de

Abstract

For general step-stress experiments with arbitrary baseline distributions, where the stress-levels change immediately after having observed pre-specified numbers of observations under each stress-level, a sequential order statistics model is proposed and analyzed. Maximum likelihood estimators (MLEs) of the mean life-times related to the different stress-levels are calculated, and useful properties of the MLEs are shown. Moreover, joint MLEs are considered when introducing an additional location parameter, and estimators under order restriction of the stress-level parameters are derived.

The talk is based on a joint work with

M. Kateri (Department of Statistics and Insurance Science, University of Piraeus, 18534 Piraeus, Greece) and

N. Balakrishnan (Department of Mathematics and Statistics, McMaster University, Hamilton, Ontario, Canada L8S 4K1)

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