



國立高雄大學統計學研究所 巨量資料研究中心 聯合演講

Optimal Measurement Time Planning for Gamma Degradation Tests

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時間 | 2024年10月9日(星期三)上午10:30-11:30

地點 | 統計所多媒體教室(理學院 320室)

茶會 | 上午10:00 於統計所辦公室(理學院 325室)

摘要

As a product approaches launch, assessing product lifetime becomes a critical issue for manufacturers. Degradation tests, which are widely used in industry, are one method for this evaluation. Among various degradation models, gamma processes are suitable for modeling degradation data with monotonic properties. To efficiently design a gamma degradation test, several studies have explored optimal design under cost constraints, including considerations for the number of test units, measurement times, number of measurements, and testing termination time. However, because of practical convenience, most of the existing literature focuses on designs with equal measurement intervals and provides limited discussion on measurement interval planning. In this paper, we prove that the equal measurement interval plan is the least efficient and propose an optimal measurement interval plan. Furthermore, we propose optimal designs for two types of measurement interval plans.

近期演講內容: <https://statsite.nuk.edu.tw/>

高大交通資訊: <https://statsite.nuk.edu.tw/p/412-1037-5044.php?Lang=zh-tw>



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