ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

A Stochastic Drift Model for Discrete Parameters in Semiconductor Devices

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Chaired by Jürgen Pilz | Department of Statistics

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N.2.35

ABSTRACT

In this talk, we will discuss the modelling of lifetime behavior in semiconductor devices on the basis of highly-censored longitudinal stress test data. We will further tackle the issue of guard banding parameters to conform to desired quality targets and the calculation of residual useful lifetimes. Our model approach for discrete drift data is a Markov transition model based on semi-parametric estimation of increment distributions. In the context of residual useful life, quantile and expectile regression methods will be discussed. Finally, as a comparative continuous model, we will present a modelling approach using vine copulas.

We hope to see you there!