

## Statistisches Kolloquium

- Zeit: Mittwoch, 19.10.2022, 16.15 - 17.15
- Ort: CARL - H06 (1385|004)
- Vortragender: Prof. Serkan Eryilmaz  
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- Titel: Age replacement policies for discrete time reliability systems

### Abstract

In many real life applications, the lifetimes of units or components can be measured in terms of the number of cycles. For example, the lifetimes of batteries may be measured in terms of how many times their charge-discharge processes have been repeated. In this case, a cycle is one complete use of the battery to store power and release it. The lifetime of the tyre of jet fighters is determined based on the number of flights.

According to the discrete time age replacement policy, a system whose lifetime is measured by the number cycles is replaced preventively after a specified number of cycles or correctively at failure, whichever occurs first. In this talk, discrete time age replacement policies will be presented for both single unit and multicomponent systems. Some considerations will also be shared with respect to a number of optimization problems and challenges on discrete time systems from reliability engineering perspective.

### About the Speaker

Professor Eryilmaz completed his Ph.D. at Ankara University in 2002. He is currently Vice President for research at Atilim University, Turkey. For three years, he was also Chair of the IE Department at Atilim University. He has been a visiting scholar at Manitoba University (Canada) and Durham University (UK). He is the present co-chair of the System Reliability Technical Committee of the European Safety and Reliability Association. He currently serves as a member of the Editorial Board of Reliability Engineering and System Safety and an Area Editor of the IISE Transactions-Data Science, Quality & Reliability Engineering. His research interests include reliability engineering, applied probability, stochastic modeling and renewable energy systems. He is the author of more than 190 publications. He was honored by TUBITAK (Scientific and Technological Research Council of Turkey) Science Incentive Award due to his highly qualified studies on system reliability in the field of stochastic models/processes in operations research. He has recently published a book titled "*Discrete time stochastic models and applications for reliability engineering and statistical quality control*" by CRC Press, Taylor and Francis Group.

Für weitere Informationen wenden Sie sich bitte an:

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