

Accepted Manuscript

Reliability modeling for mutually dependent competing failure processes due to degradation and random shocks

Songhua Hao , Jun Yang , Xiaobing Ma , Yu Zhao

PII: S0307-904X(17)30406-7
DOI: [10.1016/j.apm.2017.06.014](https://doi.org/10.1016/j.apm.2017.06.014)
Reference: APM 11818



To appear in: *Applied Mathematical Modelling*

Received date: 10 July 2016
Revised date: 28 April 2017
Accepted date: 12 June 2017

Please cite this article as: Songhua Hao , Jun Yang , Xiaobing Ma , Yu Zhao , Reliability modeling for mutually dependent competing failure processes due to degradation and random shocks, *Applied Mathematical Modelling* (2017), doi: [10.1016/j.apm.2017.06.014](https://doi.org/10.1016/j.apm.2017.06.014)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- Reliability model for mutually dependent competing failure processes is proposed.
- Soft, hard failures and their interaction are depicted by Stress-Strength model.
- Hard failure threshold level is positively correlated on degradation performance.
- Numerical double integration is adopted to compute the proposed reliability model.
- Example analysis shows the mutual dependence has important effect on reliability.

Download English Version:

<https://daneshyari.com/en/article/5470793>

Download Persian Version:

<https://daneshyari.com/article/5470793>

[Daneshyari.com](https://daneshyari.com)