

Accepted Manuscript

Adaptive Monte Carlo analysis for strongly nonlinear stochastic systems

Michael D. Shields

PII: S0951-8320(17)30882-7
DOI: [10.1016/j.res.2018.03.018](https://doi.org/10.1016/j.res.2018.03.018)
Reference: RESS 6102



To appear in: *Reliability Engineering and System Safety*

Received date: 25 July 2017
Revised date: 8 March 2018
Accepted date: 10 March 2018

Please cite this article as: Michael D. Shields, Adaptive Monte Carlo analysis for strongly nonlinear stochastic systems, *Reliability Engineering and System Safety* (2018), doi: [10.1016/j.res.2018.03.018](https://doi.org/10.1016/j.res.2018.03.018)

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

- Shows that optimal stratified designs are non-uniform for nonlinear systems.
- Illustrates that the benefits of an optimally non-uniform sample design can be substantial compared to space-filling designs.
- Proposes an adaptive approach that mitigates the practical challenges of achieving sample design optimality.
- The method is applied to modeling shear localization in amorphous solids with stochastic initial conditions.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/7195180>

Download Persian Version:

<https://daneshyari.com/article/7195180>

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