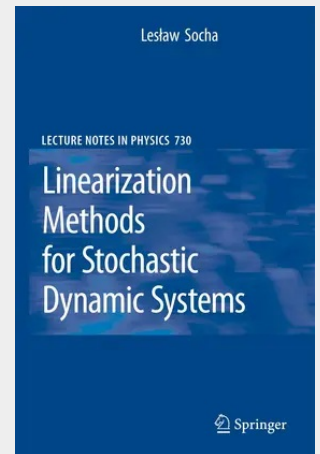


Linearization Methods for Stochastic Dynamic Systems

For most cases of interest, exact solutions to nonlinear equations describing stochastic dynamical systems are not available. The aim of this book is to give a systematic introduction to and overview of the relatively simple and popular linearization methods available. The scope is limited to models with continuous external and parametric excitations, yet these cover the majority of known approaches. The book contains an application chapter with emphasis on vibration analysis of stochastic mechanical structures as well as a chapter devoted to the assessment of the accuracy of the theoretical methods presented, both with respect to numerical and to experimental studies. The material derives partly from graduate course notes developed by the author for courses and seminars over the past 20 years.

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