
Description:
A timely update of the classic book on the theory and application of random data analysis

First published in 1971, Random Data served as an authoritative book on the analysis of experimental physical data for engineering and scientific applications. This Fourth Edition features coverage of new developments in random data management and analysis procedures that are applicable to a broad range of applied fields, from the aerospace and automotive industries to oceanographic and biomedical research.

This new edition continues to maintain a balance of classic theory and novel techniques. The authors expand on the treatment of random data analysis theory, including derivations of key relationships in probability and random process theory. The book remains unique in its practical treatment of nonstationary data analysis and nonlinear system analysis, presenting the latest techniques on modern data acquisition, storage, conversion, and qualification of random data prior to its digital analysis. The Fourth Edition also includes:
- A new chapter on frequency domain techniques to model and identify nonlinear systems from measured input/output random data
- New material on the analysis of multiple-input/single-output linear models
- The latest recommended methods for data acquisition and processing of random data
- Important mathematical formulas to design experiments and evaluate results of random data analysis and measurement procedures
- Answers to the problem in each chapter

Comprehensive and self-contained, Random Data, Fourth Edition is an indispensible book for courses on random data analysis theory and applications at the upper-undergraduate and graduate level. It is also an insightful reference for engineers and scientists who use statistical methods to investigate and solve problems with dynamic data.

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