

many illustrative examples are worked out. Other topics include stochastic stability, convergence questions in Bayesian optimization problems and some sub-optimal control policies.

The book will be of interest to scientists and engineers working in stochastic control systems and who are quite familiar with recursion formulas for use in computers.

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Problems in probability theory, mathematical statistics and theory of random functions. Edited by A. A. Sveshnikov. Translated by Scripta Technica Inc. . W.B. Saunders Co., Philadelphia, London, Toronto, 1968. ix + 481 pages. Can. \$15.70.

This is the translation of a collection of problems which was first published in Russian in 1965. The subject matter is broken up into nine chapters: random events; random variables; systems of random variables; numerical characteristics and distribution laws of functions of random variables; entropy and information limit theorems; correlation theory of random functions; Markov processes and methods of data processing. Each of the 46 sections begins with a review of basic formulas and definitions and solutions for typical examples. Answers or brief sketches of solutions to all the problems are given at the end of the book.

The problems are primarily computational in nature and vary from close to trivial to fairly difficult. The problems of the first six chapters would serve as a useful supplement to an introductory course at the level of W. Feller's "Introduction to Probability Theory and its Applications", Vol. I. The chapter on the correlation theory of random functions would be a very useful supplement to an engineering course on random functions and the chapter on methods of data processing could be used to supplement a basic course of statistics.

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An introduction to probability theory, by P. A. P. Moran. Oxford University Press, 70 Wynford Drive, Don Mills, Ontario, 1968. 542 pages. \$15.00.

So many elementary books on probability have recently been published that the reviewer opened this book with some trepidation. However, the title of the book is rather misleading as it is anything but an elementary introduction to the subject. It contains a comprehensive coverage of distributions, stochastic processes and the main theorems of probability. The treatment is mathematically quite sophisticated (for example we meet a σ -field on page 4) and there is a useful introduction to measure theory. The bibliography is extensive, concentrating on the applications of probability.

The book is certainly not suitable for anyone who wishes to be introduced to the subject of probability. For example, the idea of independence is introduced before the idea of conditional probability. However, I think that many statisticians will find it extremely useful as a reference text on probability.

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