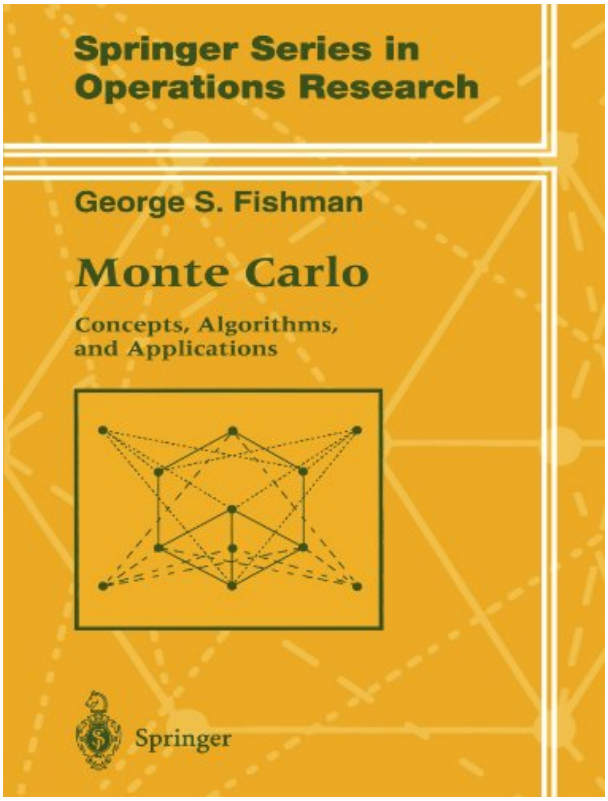
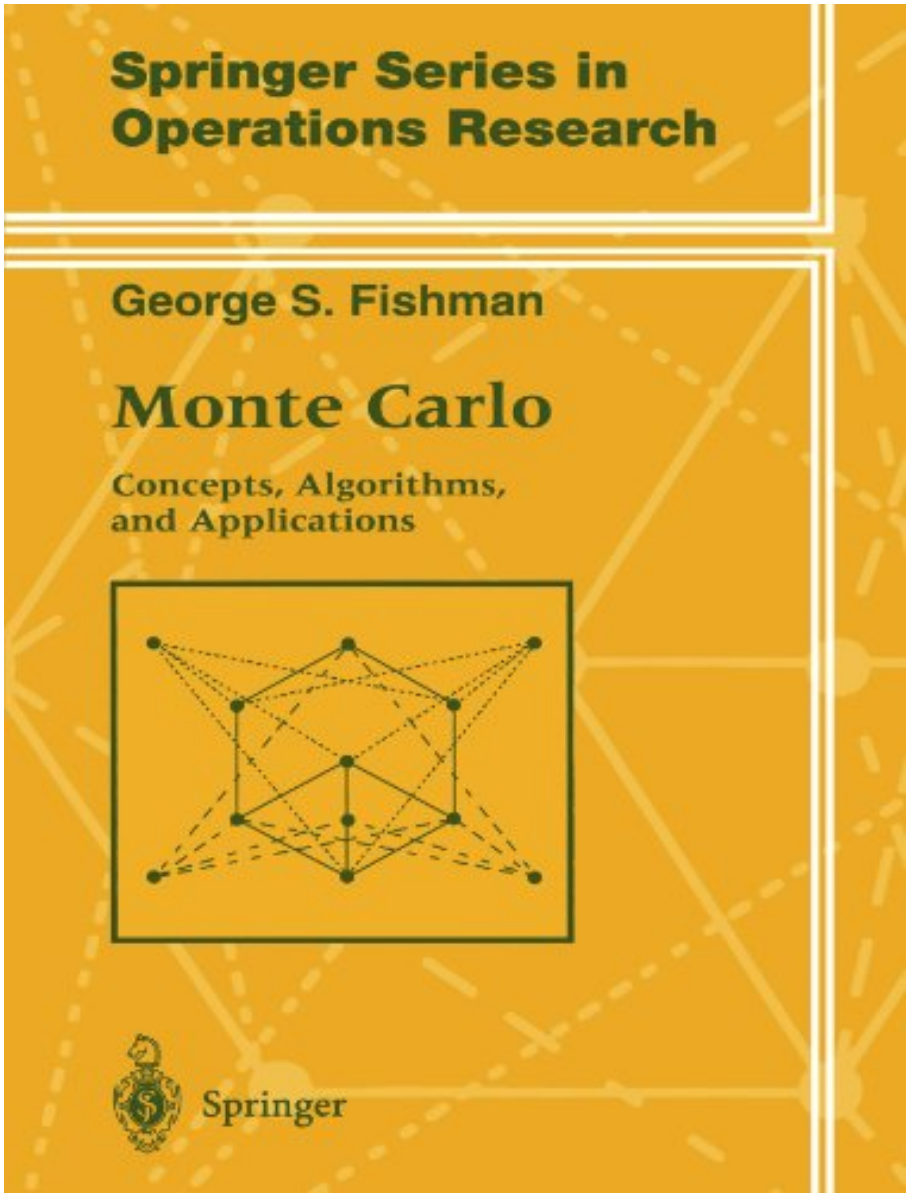
MONTE CARLO: CONCEPTS, ALGORITHMS, AND APPLICATIONS (SPRINGER SERIES IN OPERATIONS RESEARCH AND FINANCIAL ENGINEERING) BY GEORGE FISHMAN





MONTE CARLO: CONCEPTS, ALGORITHMS, AND APPLICATIONS (SPRINGER SERIES IN OPERATIONS RESEARCH AND FINANCIAL ENGINEERING) BY GEORGE FISHMAN PDF

Why should soft file? As this Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman, many people additionally will certainly have to acquire guide sooner. But, occasionally it's up until now way to obtain the book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman, also in other country or city. So, to relieve you in locating guides Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman that will sustain you, we aid you by offering the listings. It's not just the listing. We will certainly offer the suggested book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman web link that can be downloaded straight. So, it will not need even more times or perhaps days to pose it and various other publications.

From the Back Cover

This volume presents a comprehensive first course in the Monte Carlo method which will be suitable for graduate and undergraduate students in the mathematical sciences and engineering, principally operations research, statistics, mathematics, and computer science. The reader is assumed to have a sound understanding of calculus, introductory matrix analysis, probability, and intermediate statistics, but otherwise the book is self-contained. As well as a thorough exploration of the important concepts of the Monte Carlo method, the volume includes over 90 algorithms which allow the reader to move rapidly from the concepts to putting them into practice. The book also contains numerous exercises, many of them hands-on implementations of selected algorithms to demonstrate the application of these ideas in realistic settings. Software, freely available via ftp and portable across computing platforms, provides programs for pseudorandom number generation and statistical sample path data analysis. The software is suitable for use with the exercises as well as for more general applications. For professional mathematical scientists and engineers this book provides a ready reference to the Monte Carlo method, especially to implementable algorithms for performing sampling experiments on a computer and for analyzing their results.

MONTE CARLO: CONCEPTS, ALGORITHMS, AND APPLICATIONS (SPRINGER SERIES IN OPERATIONS RESEARCH AND FINANCIAL ENGINEERING) BY GEORGE FISHMAN PDF

Book fans, when you require a brand-new book to review, discover the book **Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman** below. Never ever stress not to discover just what you need. Is the Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman your needed book now? That holds true; you are actually an excellent visitor. This is a best book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman that originates from excellent author to share with you. The book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman supplies the very best experience as well as lesson to take, not just take, but likewise discover.

This publication *Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman* offers you much better of life that could produce the high quality of the life brighter. This Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman is exactly what the people now need. You are here and you might be exact and also certain to obtain this publication Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman Never doubt to obtain it also this is simply a publication. You could get this book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman as one of your compilations. Yet, not the compilation to present in your shelfs. This is a valuable publication to be reading collection.

Just how is making certain that this Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman will not presented in your bookshelves? This is a soft documents book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman, so you can download Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman by buying to get the soft data. It will certainly ease you to read it whenever you need. When you feel careless to move the published book from the home of office to some place, this soft file will certainly ease you not to do that. Due to the fact that you could only save the information in your computer hardware as well as gizmo. So, it allows you read it everywhere you have determination to review Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman

MONTE CARLO: CONCEPTS, ALGORITHMS, AND APPLICATIONS (SPRINGER SERIES IN OPERATIONS RESEARCH AND FINANCIAL ENGINEERING) BY GEORGE FISHMAN PDF

Apart from a thorough exploration of all the important concepts, this volume includes over 75 algorithms, ready for putting into practice. The book also contains numerous hands-on implementations of selected algorithms to demonstrate applications in realistic settings. Readers are assumed to have a sound understanding of calculus, introductory matrix analysis, and intermediate statistics, but otherwise the book is self-contained. Suitable for graduates and undergraduates in mathematics and engineering, in particular operations research, statistics, and computer science.

- Sales Rank: #4590606 in Books
- Brand: Fishman George
- Published on: 2011-05-26
- Original language: English
- Number of items: 1
- Dimensions: 9.25" h x 1.64" w x 7.01" l, 2.73 pounds
- Binding: Paperback
- 698 pages

Features

- Monte Carlo Concepts Algorithms and Applications

From the Back Cover
This volume presents a comprehensive first course in the Monte Carlo method which will be suitable for graduate and undergraduate students in the mathematical sciences and engineering, principally operations research, statistics, mathematics, and computer science. The reader is assumed to have a sound understanding of calculus, introductory matrix analysis, probability, and intermediate statistics, but otherwise the book is self-contained. As well as a thorough exploration of the important concepts of the Monte Carlo method, the volume includes over 90 algorithms which allow the reader to move rapidly from the concepts to putting them into practice. The book also contains numerous exercises, many of them hands-on implementations of selected algorithms to demonstrate the application of these ideas in realistic settings. Software, freely available via ftp and portable across computing platforms, provides programs for pseudorandom number generation and statistical sample path data analysis. The software is suitable for use with the exercises as well as for more general applications. For professional mathematical scientists and engineers this book provides a ready reference to the Monte Carlo method, especially to implementable algorithms for performing sampling experiments on a computer and for analyzing their results.

Most helpful customer reviews

0 of 0 people found the following review helpful.

This is the best!!
By Thomas Adkins
This is the must-have book for those wishing an understanding of random number generation in computational settings. It's the best around, and contains topics addressing everything that matters in pseudo-random experiments, simulation and the like.

1 of 5 people found the following review helpful.
Non-Fiction
By average
A really high level textbook, this one, you'd have to know some other basics to understand what this book is going on about.

A text only for this with enough mathematical grounding to want to get into this sort of sampling and analysis methodology.

Not particularly accessible at all below that.

35 of 35 people found the following review helpful.
HIGHLY recommended!!
By Dr. Lee D. Carlson
This book gives a rigorous introduction to the main ideas behind the Monte Carlo technique and also gives many concrete examples to illustrate the important concepts. The applications of Monte Carlo are immense, and cover a wide range of fields, including finance, physics, chemistry, computational biology, geology, computational radiology, and network engineering.
The author begins, naturally, with a discussion of how to compute the volume of a high-dimensional body using standard (deterministic) methods and then shows the advantages of using Monte Carlo to find the volume. He does a fine job of assessing the errors in the volume calculation, being careful to distinguish between convergence with probability one and convergence in probability. He also explains the need for specifying confidence levels, and not just the epsilon error term, to determine the smallest sample size that guarantees an error no larger than the specified epsilon. He also gives an interesting application to network reliability in this chapter. The probability that two network nodes are connected is reduced to a volume computation which is then estimated using Monte Carlo sampling. This is an excellent example of how Monte Carlo can be used to arrive at an accurate estimate of an intractable problem. The author gives another example of this later in the chapter wherein he uses Monte Carlo methods in combinatorial probability. Also included in the chapter are some useful hands-on exercises for the reader.
The sometimes tricky procedure of generating samples from a variety of distributions is the subject of the next chapter. The author is careful throughout the chapter to distinguish between results that are exact from a formal standpoint and those that are implementable in practice. In addition, a thorough discussion of the error introduced by using pseudorandom numbers in place of sequences of uniform deviates is given. This is the only book I know of that discusses this issue with the clarity it does. The author treats the inverse transform, composition, acceptance-rejection, ratio-of-uniforms, and exact-approximation in great detail. Here again a very useful set of hands-on exercises is given at the end of the chapter.
Increasing the efficiency of Monte Carlo sampling is the subject of the next chapter, wherein importance sampling, control variates, stratified sampling, correlated sampling, and conditional Monte Carlo are discussed in detail. These methods are usually called variance reduction techniques, but the author gives an interesting argument about why this characterization is not really accurate.
The author brings in conditional sampling, or Markov chain sampling, in the next chapter. It is this approach that has made Monte Carlo such a widely used techniques in science, finance, and network queueing problems. He gives a rather quick overview of the necessary background in Markov chains, and then moves on to discuss neutron transport. It was the intractable nature of the Boltzmann transport equation that gave

Monte Carlo its first real application back in the 1940's. The much-used Metropolis
method is discussed later, with close attention paid to the details. This is a section that should be read by anyone interested in Monte Carlo techniques. This is followed by a detailed discussion of Markov random fields, Gibbs sampling, and simulated annealing, all of these being heavily used in applications. And also, no book on Monte Carlo could be complete without a discussion of the three-dimensional Ising model, which is in here. The next chapter concentrates on sampling design and statistical inference, wherein the author discusses how choices of the initial (nonequilibrium) distribution, the number of steps, the number of replications, and the simulation time affect the computational and statistical efficiency of the Monte Carlo simulation. He explains very effectively these issues and also the difficulties involved with path-dependence. Network modelers will appreciate his example of routing algorithm performance. The last chapter treats in great detail procedures for generating pseudorandom numbers. The standard methods for doing this are covered, along with spectral tests and performance issues. More exotic pseudorandom generators using nonlinear recursion are also discussed, but the proofs for these are omittted. This excellent book belongs on the shelves of anyone interested in Monte Carlo techniques. The price is reasonable considering how much time it would take to collect all the results in the book from the literature. It deserves a highest recommendation.

See all 4 customer reviews...

MONTE CARLO: CONCEPTS, ALGORITHMS, AND APPLICATIONS (SPRINGER SERIES IN OPERATIONS RESEARCH AND FINANCIAL ENGINEERING) BY GEORGE FISHMAN PDF

Well, when else will certainly you find this prospect to get this book **Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman** soft file? This is your excellent opportunity to be here as well as get this fantastic book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman Never ever leave this publication prior to downloading this soft data of Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman in web link that we provide. Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman will really make a good deal to be your buddy in your lonely. It will certainly be the best partner to improve your business as well as leisure activity.

From the Back Cover
This volume presents a comprehensive first course in the Monte Carlo method which will be suitable for graduate and undergraduate students in the mathematical sciences and engineering, principally operations research, statistics, mathematics, and computer science. The reader is assumed to have a sound understanding of calculus, introductory matrix analysis, probability, and intermediate statistics, but otherwise the book is self-contained. As well as a thorough exploration of the important concepts of the Monte Carlo method, the volume includes over 90 algorithms which allow the reader to move rapidly from the concepts to putting them into practice. The book also contains numerous exercises, many of them hands-on implementations of selected algorithms to demonstrate the application of these ideas in realistic settings. Software, freely available via ftp and portable across computing platforms, provides programs for pseudorandom number generation and statistical sample path data analysis. The software is suitable for use with the exercises as well as for more general applications. For professional mathematical scientists and engineers this book provides a ready reference to the Monte Carlo method, especially to implementable algorithms for performing sampling experiments on a computer and for analyzing their results.

Why should soft file? As this Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman, many people additionally will certainly have to acquire guide sooner. But, occasionally it's up until now way to obtain the book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman, also in other country or city. So, to relieve you in locating guides Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman that will sustain you, we aid you by offering the listings. It's not just the listing. We will certainly offer the suggested book Monte Carlo: Concepts, Algorithms, And Applications (Springer Series In Operations Research And Financial Engineering) By George Fishman web link that can be downloaded straight. So, it will not need even more times or perhaps days to pose it and various other publications.