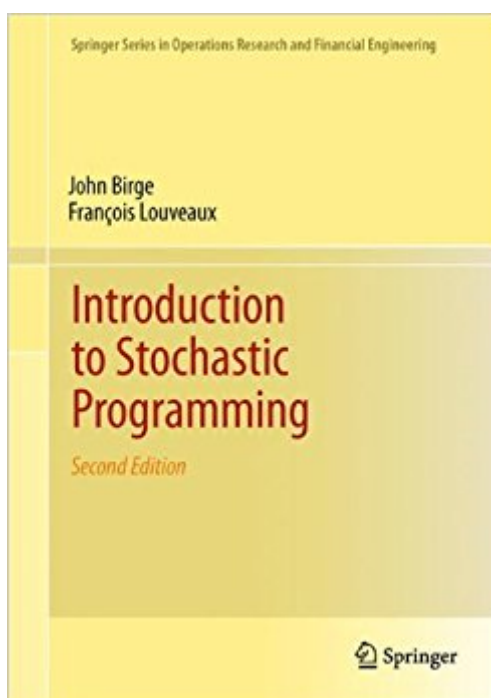


The book was found

Introduction To Stochastic Programming (Springer Series In Operations Research And Financial Engineering)



Synopsis

The aim of stochastic programming is to find optimal decisions in problems which involve uncertain data. This field is currently developing rapidly with contributions from many disciplines including operations research, mathematics, and probability. At the same time, it is now being applied in a wide variety of subjects ranging from agriculture to financial planning and from industrial engineering to computer networks. This textbook provides a first course in stochastic programming suitable for students with a basic knowledge of linear programming, elementary analysis, and probability. The authors aim to present a broad overview of the main themes and methods of the subject. Its prime goal is to help students develop an intuition on how to model uncertainty into mathematical problems, what uncertainty changes bring to the decision process, and what techniques help to manage uncertainty in solving the problems. In this extensively updated new edition there is more material on methods and examples including several new approaches for discrete variables, new results on risk measures in modeling and Monte Carlo sampling methods, a new chapter on relationships to other methods including approximate dynamic programming, robust optimization and online methods. The book is highly illustrated with chapter summaries and many examples and exercises. Students, researchers and practitioners in operations research and the optimization area will find it particularly of interest. Review of First Edition: "The discussion on modeling issues, the large number of examples used to illustrate the material, and the breadth of the coverage make 'Introduction to Stochastic Programming' an ideal textbook for the area." (Interfaces, 1998)

Book Information

Series: Springer Series in Operations Research and Financial Engineering

Hardcover: 485 pages

Publisher: Springer; 2nd ed. 2011 edition (June 27, 2011)

Language: English

ISBN-10: 1461402360

ISBN-13: 978-1461402367

Product Dimensions: 7 x 1.1 x 10 inches

Shipping Weight: 2.4 pounds (View shipping rates and policies)

Average Customer Review: 3.2 out of 5 stars 4 customer reviews

Best Sellers Rank: #705,105 in Books (See Top 100 in Books) #72 in Books > Science & Math > Mathematics > Applied > Stochastic Modeling #109 in Books > Science & Math > Mathematics >

Customer Reviews

From the reviews of the second edition: "Help the students to understand how to model uncertainty into mathematical optimization problems, what uncertainty brings to the decision process and which techniques help to manage uncertainty in solving the problems. It certainly attract also the wide spectrum of readers whose main interest lies in possible exploitation of stochastic programming methodology and will help them to find their own way to treat actual problems using stochastic programming methods. As a whole, the three main building blocks of stochastic programming are well represented and balanced." (Jitka Dupačová, Zentralblatt MATH, Vol. 1223, 2011)

This textbook provides a first course in stochastic programming suitable for students with a basic knowledge of linear programming, elementary analysis, and probability. The authors aim to present a broad overview of the main themes and methods of the subject. Its prime goal is to help students develop an intuition on how to model uncertainty into mathematical problems, what uncertainty changes bring to the decision process, and what techniques help to manage uncertainty in solving the problems. A wide range of students from operations research, industrial engineering, and related disciplines will find this a well-paced and wide-ranging introduction to this subject. --This text refers to an out of print or unavailable edition of this title.

The author is certainly well recognized in the field. However, I found the book a bit difficult to read. I felt the author could have described things in greater detail and depth. That is, he seemingly left a lot for the reader to infer and derive for himself.

Typical Springer book. Way too much text and too little illustration or examples. Meh....They really should bring their textbooks into the 21st century with color, illustrations, pictures, and even more digital tie-in. This is dry as cardboard, and math doesn't have to be like that.

Introduction to Stochastic Programming is a must own book for anyone working in OR, IE, MS, etc. As stochasticity becomes more and more important in the field, this book becomes increasingly valuable. "Introduction" is a bit of a stretch. It starts from ground zero of Stochastic Programming,

but is very heavy on the math. If you aren't solid with your LP and probability, then a brush up is definitely in order. This book is not for the faint of heart. Nevertheless, Birge and Louveaux do an OUTSTANDING job. The examples are clear, easy to follow (assuming you're not math phobic) and very relevant. They go through different formulations of stochastic programmes (recourse, chance constrained, etc.). The book discusses formulation, algorithms, and applications. There are not many books out there on Stochastic Programming...and this is really the only one you need to own.

Given that there are not many books in the area of stochastic programming Birge et al have written a book that will be a necessary reference for the time being. The first third of the book does provide a good introduction to the basics of SP but after that a level of formalism dominates that makes one wonder if she is reading from an arcane optimization journal. The later two thirds of the book is really nothing more than an amalgam of results pulled from the literature (journals). As such, little motivation is provided for the major results that are for the most part just juxtaposed on after another. One wonders why such a journalistic style would be used for an introductory text. After all the subject should not be presented as a springer-verlag MATH text in a field like algebraic topology where a theorem-proof format is legitimate. Thus, until a better introductory text comes along that blends more of the practical engineering aspects with the theory we must be content with the current state of the art.

[Download to continue reading...](#)

Introduction to Stochastic Programming (Springer Series in Operations Research and Financial Engineering) Finite-Dimensional Variational Inequalities and Complementarity Problems (Springer Series in Operations Research and Financial Engineering) Numerical Optimization (Springer Series in Operations Research and Financial Engineering) Continuous-time Stochastic Control and Optimization with Financial Applications (Stochastic Modelling and Applied Probability) Python Programming: Python Programming for Beginners, Python Programming for Intermediates, Python Programming for Advanced C++: The Ultimate Crash Course to Learning the Basics of C++ (C programming, C++ in easy steps, C++ programming, Start coding today) (CSS,C Programming, ... Programming,PHP, Coding, Java Book 1) Stochastic Simulation: Algorithms and Analysis (Stochastic Modelling and Applied Probability, No. 57) (No. 100) Introduction to Modeling and Analysis of Stochastic Systems (Springer Texts in Statistics) Mathematics for Finance: An Introduction to Financial Engineering (Springer Undergraduate Mathematics Series) Introduction to Mathematical Programming: Operations Research, Vol. 1 (Book & CD-ROM) C++ and Python Programming: 2 Manuscript Bundle: Introductory Beginners Guide to Learn C++ Programming and

Python Programming C++ and Python Programming 2 Bundle Manuscript. Introductory Beginners Guide to Learn C++ Programming and Python Programming Python Programming: The Complete Step By Step Guide to Master Python Programming and Start Coding Today! (Computer Programming Book 4) Linear and Nonlinear Programming: 116 (International Series in Operations Research & Management Science) Linear Programming: Foundations and Extensions (International Series in Operations Research & Management Science) Stochastic Calculus for Finance II: Continuous-Time Models (Springer Finance) Stochastic Calculus for Finance I: The Binomial Asset Pricing Model (Springer Finance) (v. 1) Essentials of Stochastic Processes (Springer Texts in Statistics) Financial Engineering with Copulas Explained (Financial Engineering Explained) Introduction to Operations Research with Access Card for Premium Content (Irwin Industrial Engineering)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)