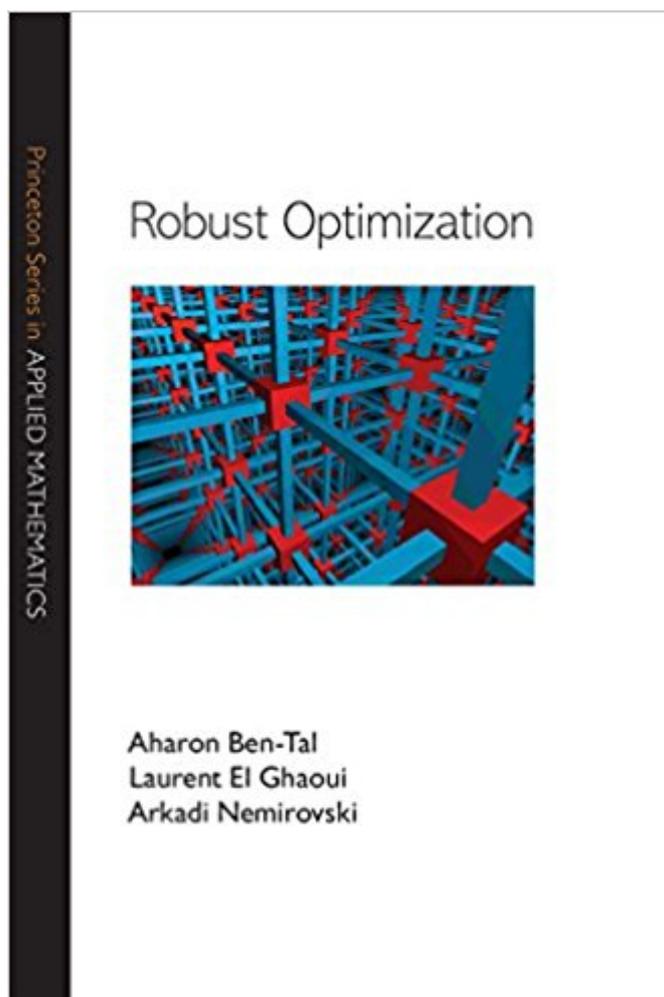The book was found

Robust Optimization (Princeton Series In Applied Mathematics)

Synopsis

Robust optimization is still a relatively new approach to optimization problems affected by uncertainty, but it has already proved so useful in real applications that it is difficult to tackle such problems today without considering this powerful methodology. Written by the principal developers of robust optimization, and describing the main achievements of a decade of research, this is the first book to provide a comprehensive and up-to-date account of the subject.Robust optimization is designed to meet some major challenges associated with uncertainty-affected optimization problems: to operate under lack of full information on the nature of uncertainty; to model the problem in a form that can be solved efficiently; and to provide guarantees about the performance of the solution.The book starts with a relatively simple treatment of uncertain linear programming, proceeding with a deep analysis of the interconnections between the construction of appropriate uncertainty sets and the classical chance constraints (probabilistic) approach. It then develops the robust optimization theory for uncertain conic quadratic and semidefinite optimization problems and dynamic (multistage) problems. The theory is supported by numerous examples and computational illustrations.An essential book for anyone working on optimization and decision making under uncertainty, Robust Optimization also makes an ideal graduate textbook on the subject.

Book Information

Series: Princeton Series in Applied Mathematics

Hardcover: 576 pages

Publisher: Princeton University Press (August 30, 2009)

Language: English

ISBN-10: 0691143684

ISBN-13: 978-0691143682

Product Dimensions: 7 x 1.2 x 10 inches

Shipping Weight: 2.8 pounds (View shipping rates and policies)

Average Customer Review: 2.0 out of 5 stars See all reviews (3 customer reviews)

Best Sellers Rank: #891,271 in Books (See Top 100 in Books) #133 in Books > Science & Math > Mathematics > Applied > Linear Programming #384 in Books > Business & Money > Processes & Infrastructure > Operations Research #2364 in Books > Textbooks > Science & Mathematics > Mathematics > Statistics

Customer Reviews

This is a poorly written book. Everything is in pieces. In reads like the authors have not fully

digested the robust optimization landscape. They do not make much attempt to slowly build up the theory, and provide easy to follow examples. They stick to the abstract whenever they can.

The books addresses key topics, but treatment and formulations of the problems are difficult to follow. It looks like a collection of the authors' papers.

Well, before spelling comments about this book, I'll talk about myself and why I bought it. I'm a civil engineer, actually studying for master's degree in hydraulic engineering, working with the creation of and model to use robust optimization for operation of hydroelectric power plants. Unfortunately there is few books that deals with robust optimization. I thought that this one would have a more practical view to apply this method. But I was mistaken.The book is indeed good in mathematical theory AND ONLY for that. There are few examples to illustrate the techniques of robust optimization, and most of this content discusses mathematical formulations. This isn't very useful for engineers, economists, biologists and any other profession that isn't used to pure mathematical formulations.

Robust Optimization (Princeton Series in Applied Mathematics) Princeton Readings in Islamist Thought: Texts and Contexts from al-Banna to Bin Laden (Princeton Studies in Muslim Politics) The Princeton Field Guide to Dinosaurs: Second Edition (Princeton Field Guides) The Probabilistic Method (Wiley Series in Discrete Mathematics and Optimization) Elementary Stochastic Calculus With Finance in View (Advanced Series on Statistical Science & Applied Probability, Vol 6) (Advanced Series on Statistical Science and Applied Probability) Robust Control Systems with Genetic Algorithms (Control Series) Linear Optimization: The Simplex Workbook (Undergraduate Texts in Mathematics) Convexity and Optimization in Banach Spaces (Springer Monographs in Mathematics) Convex Analysis (Princeton Landmarks in Mathematics and Physics) The Princeton Companion to Mathematics MySQL High Availability: Tools for Building Robust Data Centers Robust Control Systems: Theory and Case Studies Robust Control System Networks Computing with Memory for Energy-Efficient Robust Systems Portuguese Cooking: The Authentic and Robust Cuisine of Portugal Robust Java: Exception Handling, Testing, and Debugging Robust Localization and Mapping for Mobile Robotic Navigation: Theory, Algorithm and Implementation Engineering Methods for Robust Product Design: Using Taguchi Methods in Technology and Product Development An Alternative Aquarium: A Robust Habitat Uninhibited, Robust, and Wide-Open: A Free Press for a New Century (INALIENABLE RIGHTS)

Contact Us

DMCA

Privacy

FAQ & Help