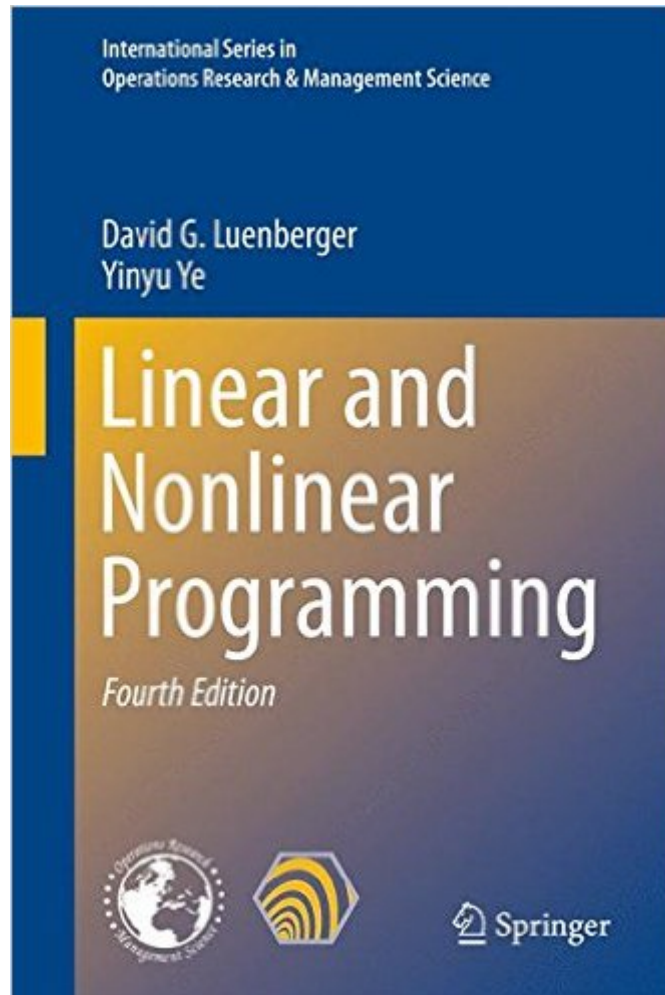


The book was found

Linear And Nonlinear Programming (International Series In Operations Research & Management Science)



Synopsis

This new edition covers the central concepts of practical optimization techniques, with an emphasis on methods that are both state-of-the-art and popular. One major insight is the connection between the purely analytical character of an optimization problem and the behavior of algorithms used to solve a problem. This was a major theme of the first edition of this book and the fourth edition expands and further illustrates this relationship. As in the earlier editions, the material in this fourth edition is organized into three separate parts. Part I is a self-contained introduction to linear programming. The presentation in this part is fairly conventional, covering the main elements of the underlying theory of linear programming, many of the most effective numerical algorithms, and many of its important special applications. Part II, which is independent of Part I, covers the theory of unconstrained optimization, including both derivations of the appropriate optimality conditions and an introduction to basic algorithms. This part of the book explores the general properties of algorithms and defines various notions of convergence. Part III extends the concepts developed in the second part to constrained optimization problems. Except for a few isolated sections, this part is also independent of Part I. It is possible to go directly into Parts II and III omitting Part I, and, in fact, the book has been used in this way in many universities. New to this edition is a chapter devoted to Conic Linear Programming, a powerful generalization of Linear Programming. Indeed, many conic structures are possible and useful in a variety of applications. It must be recognized, however, that conic linear programming is an advanced topic, requiring special study. Another important topic is an accelerated steepest descent method that exhibits superior convergence properties, and for this reason, has become quite popular. The proof of the convergence property for both standard and accelerated steepest descent methods are presented in Chapter 8. As in previous editions, end-of-chapter exercises appear for all chapters. From the reviews of the Third Edition: "this very well-written book is a classic textbook in Optimization. It should be present in the bookcase of each student, researcher, and specialist from the host of disciplines from which practical optimization applications are drawn." • (Jean-Jacques Strodiot, Zentralblatt MATH, Vol. 1207, 2011)

Book Information

Series: International Series in Operations Research & Management Science (Book 228)

Hardcover: 546 pages

Publisher: Springer; 4th ed. 2016 edition (June 26, 2015)

Language: English

ISBN-10: 3319188410

ISBN-13: 978-3319188416

Product Dimensions: 6.1 x 1.2 x 9.2 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #878,429 in Books (See Top 100 in Books) #80 in Books > Engineering & Transportation > Engineering > Industrial, Manufacturing & Operational Systems > Economics #198 in Books > Computers & Technology > Computer Science > Computer Simulation #376 in Books > Business & Money > Processes & Infrastructure > Operations Research

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

Linear and Nonlinear Programming (International Series in Operations Research & Management Science) Linear Programming: Foundations and Extensions (International Series in Operations Research & Management Science) Banach Space Theory: The Basis for Linear and Nonlinear Analysis (CMS Books in Mathematics) Level Crossing Methods in Stochastic Models (International Series in Operations Research & Management Science) Handbook on Data Envelopment Analysis (International Series in Operations Research & Management Science) Public Policy Analysis: New Developments (International Series in Operations Research & Management Science) Supply Chain Engineering (International Series in Operations Research & Management Science) Sigma Delta Modulators: Nonlinear Decoding Algorithms and Stability Analysis (The Springer International Series in Engineering and Computer Science) Applied Linear Regression Models- 4th Edition with Student CD (McGraw Hill/Irwin Series: Operations and Decision Sciences) International Logistics: The Management of International Trade Operations International Logistics: Management of International Trade Operations (with Make the Grade Printed Access Card) Operations Management in the Supply Chain: Decisions and Cases (McGraw-Hill/Irwin Series, Operations and Decision Sciences) Operations Management: Contemporary Concepts and Cases (McGraw-Hill/Irwin Series Operations and Decision Sciences) Operations and Supply Chain Management: The Core (Book Only) (McGraw-Hill/Irwin Series Operations and Decision Sciences) Operations Management (McGraw-Hill Series in Operations and Decision Sciences) Operations & Supply Management wStudent DVD Rom (McGraw-Hill/Irwin Series Operations and Decision Sciences) Loose-leaf for Operations Management (The McGraw-Hill Series in Operations and Decision Sciences) Operations and Supply Management: The Core (Operations and Decision Sciences) Operations Management (Operations and Decision Sciences) Introduction to Mathematical Programming: Operations Research, Vol. 1 (Book & CD-ROM)

[Dmca](#)