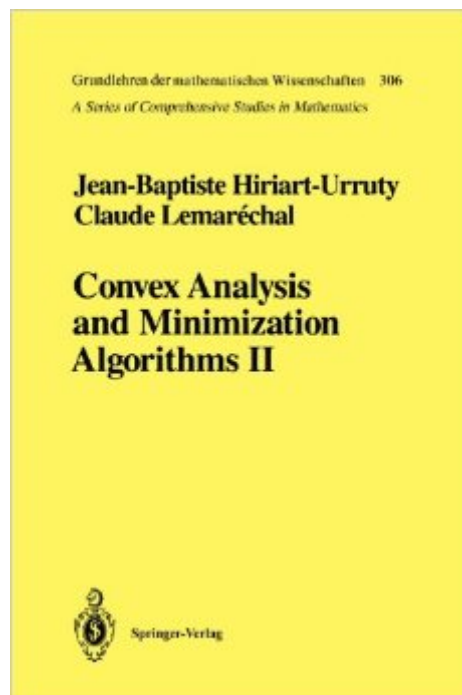# Convex Analysis And Minimization Algorithms II: Advanced Theory And Bundle Methods (Grundlehren Der Mathematischen Wissenschaften)

Grundlehren der mathematischen Wissenschaften 306
A Series of Comprehensive Studies in Mathematics

Jean-Baptiste Hiriart-Urruty
Claude Lemaréchal

Convex Analysis
and Minimization
Algorithms II

Springer-Verlag

Synopsis

From the reviews: "The account is quite detailed and is written in a manner that will appeal to analysts and numerical practitioners alike...they contain everything from rigorous proofs to tables of numerical calculations.... one of the strong features of these books...that they are designed not for the expert, but for those who whish to learn the subject matter starting from little or no background...there are numerous examples, and counter-examples, to back up the theory...To my knowledge, no other authors have given such a clear geometric account of convex analysis." "This innovative text is well written, copiously illustrated, and accessible to a wide audience"

Book Information

Series: Grundlehren der mathematischen Wissenschaften (Book 306)

Paperback: 348 pages

Publisher: Springer (February 19, 2010)

Language: English

ISBN-10: 3642081622

ISBN-13: 978-3642081620

Product Dimensions: 6 x 0.8 x 9 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 starsÂ Â See all reviewsÂ (1 customer review)

Best Sellers Rank: #1,971,132 in Books (See Top 100 in Books)   #92 inÂ Books > Science & Math > Mathematics > Research   #288 inÂ Books > Science & Math > Mathematics > Applied > Linear Programming   #299 inÂ Books > Science & Math > Mathematics > Number Systems

Customer Reviews

Lemarechal and Kiwiel introduced the bundle method in the 80's as a means to optimise nonsmooth convex functions. Recently Christoph Helmberg developed a spectral bundle approach to solving semidefinite programs, by rewriting SDP's with a constant trace as eigenvalue optimisation problems. The Spectral bundle methods outperforms the traditional interior point approaches to SDP's as these methods are typically unable to handle large SDP's with a large number of constraints.This book provides a detailed description of the bundle method for nondifferentiable optimisation. I am going to purchase a copy of this book (I already have volume one with me) and can only strongly recommend the book to anyone interested in nondifferentiable optimisation and semidefinite programming.

Convex Analysis and Minimization Algorithms II: Advanced Theory and Bundle Methods (Grundlehren der mathematischen Wissenschaften) Analytics: Data Science, Data Analysis and Predictive Analytics for Business (Algorithms, Business Intelligence, Statistical Analysis, Decision Analysis, Business Analytics, Data Mining, Big Data) Mies van der Rohe: Farnsworth House-Weekend House (Mies Van Der Rohe Archive) Sämtliche Werke (Äceber 300 Titel in einem Buch - Vollständige Ausgaben): Winnetou + Der Schatz im Silbersee + Durch die WÃ ste + Der Schut + Old Surehand ... Old Firehand und viel mehr (German Edition) The Design of Innovation: Lessons from and for Competent Genetic Algorithms (Genetic Algorithms and Evolutionary Computation) Algorithms in C++ Part 5: Graph Algorithms (3rd Edition) (Pt.5) Methods of Critical Discourse Analysis (Introducing Qualitative Methods series) One Bundle of Fun: Turn Any Bundle, Roll, or Pack into a Great Quilt Biological Modeling and Simulation: A Survey of Practical Models, Algorithms, and Numerical Methods (Computational Molecular Biology) Advanced Software Testing - Vol. 3, 2nd Edition: Guide to the ISTQB Advanced Certification as an Advanced Technical Test Analyst Advanced Software Testing - Vol. 2, 2nd Edition: Guide to the ISTQB Advanced Certification as an Advanced Test Manager Information Processing with Evolutionary Algorithms: From Industrial Applications to Academic Speculations (Advanced Information and Knowledge Processing) Multimedia Systems: Algorithms, Standards, and Industry Practices (Advanced Topics) Robotics, Vision and Control: Fundamental Algorithms in MATLAB (Springer Tracts in Advanced Robotics) Sigma Delta Modulators: Nonlinear Decoding Algorithms and Stability Analysis (The Springer International Series in Engineering and Computer Science) Day Trading Strategies: How To Trade With Algorithms And Profit In Any Market Conditions With Cutting Edge Technical Analysis And Risk Management (Stock ... Options, Investing, Make Money Online) Data Mining and Analysis: Fundamental Concepts and Algorithms Introduction to Parallel Computing: Design and Analysis of Parallel Algorithms Computer Algorithms: Introduction to Design and Analysis (3rd Edition) Introduction to the Design and Analysis of Algorithms (3rd Edition)