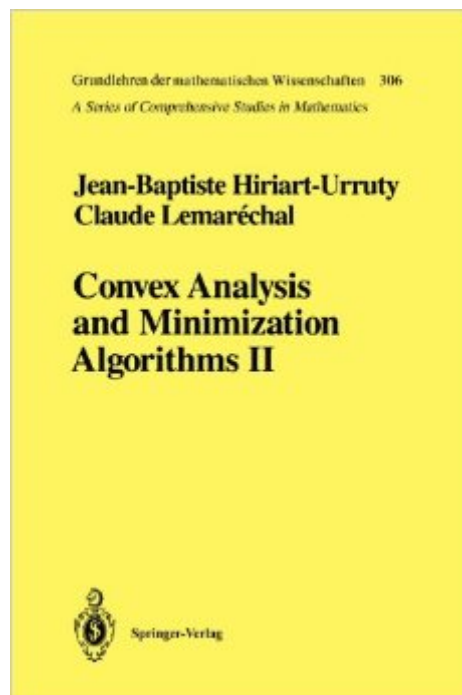# Convex Analysis And Minimization Algorithms II: Advanced Theory And Bundle Methods (Grundlehren Der Mathematischen Wissenschaften)

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

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

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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.

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