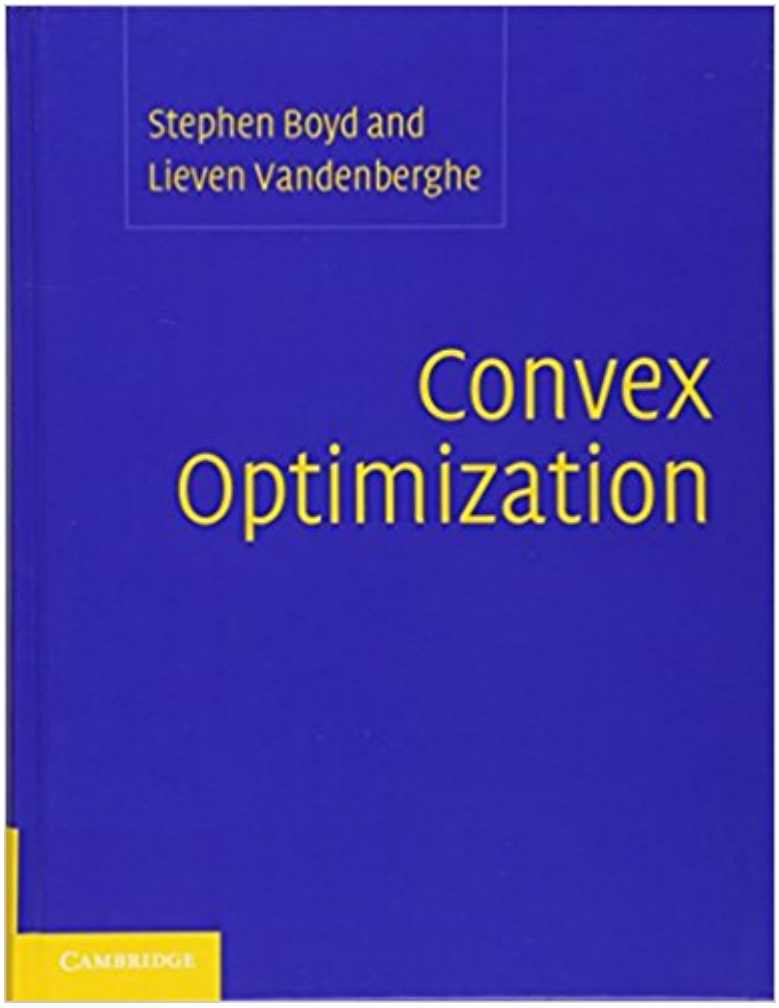
Convex Optimization



Synopsis

Convex optimization problems arise frequently in many different fields. A comprehensive introduction to the subject, this book shows in detail how such problems can be solved numerically with great efficiency. The focus is on recognizing convex optimization problems and then finding the most appropriate technique for solving them. The text contains many worked examples and homework exercises and will appeal to students, researchers and practitioners in fields such as engineering, computer science, mathematics, statistics, finance, and economics.

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Customer Reviews

"Boyd and Vandenberghe have written a beautiful book that I strongly recommend to everyone interested in optimization and computational mathematics: Convex Optimization is a very readable and inspiring introduction to this modern field of research...The book will be accessible not only to mathematicians but also to researchers and students who want to use convex optimization in applied fields like engineering, computer science, economics, statistics, or others. I recommend it as one of the best optimization textbooks that have appeared in the last years." Mathematical Methods of Operations Research"...this concisely writen book is useful in many regards: as a primary textbook for convex optimization with engineering applications or as an alternate text for a more traditional course on linear or nonlinear optimization." Journal of the American Statistical Association, Hans-Jakob Luethi, Swiss Federal Institute of Technology Zurich"The book by Boyd and Vandenberghe reviewed here is one of ... the best I have ever seen ... it is a gentle, but rigorous, introduction to the basic concepts and methods of the field ... this book is meant to be a

’first book’ for the student or practitioner of optimization. However, I think that even the experienced researcher in the field has something to gain from reading this book: I have very much enjoyed the easy to follow presentation of many meaningful examples and suggestive interpretations meant to help the student’s understanding penetrate beyond the surface of the formal description of the concepts and techniques. For teachers of convex optimization this book can be a gold mine of exercises." MathSciNet

Convex optimization problems arise frequently in many different fields. This book provides a comprehensive introduction to the subject, and shows in detail how such problems can be solved numerically with great efficiency. The focus of the book is on recognizing convex optimization problems and then finding the most appropriate technique for solving them. It contains many worked examples and homework exercises and will appeal to students, researchers and practitioners in fields such as engineering, computer science, mathematics, statistics, finance, and economics.

This is the excellent book if you want to start learning about convex optimization in both fundamental background and the actual algorithm aspects.

This material is somewhat tangential to my research, but I learned a ton by reading it. Very well organized.For example, here is a problem I was working on. For a given matrix A, find vectors a and b such that1. |A|

This book is great! The writers tend to capture the theory of convex optimization in a concise way and further illustrate it by showing their applications. The book also has a rigorous set of exercises.

Great explanations and examples. Can skip the very technical sections and it still reads well. And, if you care about these kinds of things, the typesetting is beautiful.

Very well written. Highly recommended for students and/or professionals working in optimization field

It is a really good book. Recommend for everyone who wants to know this knowledge.

Almost perfect text for both beginners and experts as well as practitioners!

This is an excellent text on optimization. The pdf version is free on the net. First I got the pdf version, I like the writing style and the way authors have described the concepts. Then I ordered the hard print. The print quality is excellent and its a great book to have!

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