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Nota di contenuto	Convex Sets: Basic properties -- Convex Sets: Binary Operations -- Convex Sets: Topological Properties -- Convex Sets: Dual Description -- Convex Functions: Basic Properties -- Convex Functions: Dual Description -- Convex Problems: The Main Questions -- Optimality Conditions: Reformulations -- Application to Convex Problems. .
Sommario/riassunto	This textbook offers graduate students a concise introduction to the classic notions of convex optimization. Written in a highly accessible style and including numerous examples and illustrations, it presents everything readers need to know about convexity and convex optimization. The book introduces a systematic three-step method for doing everything, which can be summarized as "conify, work, deconify".

It starts with the concept of convex sets, their primal description, constructions, topological properties and dual description, and then moves on to convex functions and the fundamental principles of convex optimization and their use in the complete analysis of convex optimization problems by means of a systematic four-step method. Lastly, it includes chapters on alternative formulations of optimality conditions and on illustrations of their use. "The author deals with the delicate subjects in a precise yet light-minded spirit... For experts in the field, this book not only offers a unifying view, but also opens a door to new discoveries in convexity and optimization.... perfectly suited for classroom teaching." Shuzhong Zhang, Professor of Industrial and Systems Engineering, University of Minnesota.