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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Preliminaries -- Part I. Analytical Optimization -- 2. Convexity -- 3. Unconstrained Optimization -- 4. Convex Optimization -- Part II. Numerical Optimization -- 5. Unconstrained Optimization Algorithms -- 6. Constrained Optimization -- Solutions to selected exercises -- References -- Index.
Sommario/riassunto	This textbook on nonlinear optimization focuses on model building, real world problems, and applications of optimization models to natural and social sciences. Organized into two parts, this book may be used as a primary text for courses on convex optimization and non-convex optimization. Definitions, proofs, and numerical methods are well illustrated and all chapters contain compelling exercises. The exercises emphasize fundamental theoretical results on optimality and duality theorems, numerical methods with or without constraints, and derivative-free optimization. Selected solutions are given. Applications to theoretical results and numerical methods are highlighted to help students comprehend methods and techniques.