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Descrizione fisica	1 online resource (XIII, 254 p. 56 illus.)
Collana	La Matematica per il 3+2, , 2038-5757 ; ; 108
Disciplina	519.3
Soggetti	Mathematical optimization Calculus of variations Engineering mathematics Engineering - Data processing Approximation theory Computer programming Calculus of Variations and Optimization Mathematical and Computational Engineering Applications Approximations and Expansions Programming Techniques
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	1 Overview. Part I Mathematical Programming. - 2 Linear Programming -- 3 Nonlinear programming -- 4 Numerical approximation -- Part II Variational problems -- 5 Basic theory for variational problems 6 Numerical approximation of variational problems -- Part III Optimal Control -- 7 Basic facts about optimal control . 8 Numerical approximation of basic optimal control problems, and dynamic programming. Part IV Appendix -- 9 Hints and solutions to exercises. .
Sommario/riassunto	This book provides a basic, initial resource, introducing science and engineering students to the field of optimization. It covers three main areas: mathematical programming, calculus of variations and optimal control, highlighting the ideas and concepts and offering insights into the importance of optimality conditions in each area. It also systematically presents affordable approximation methods. Exercises at

various levels have been included to support the learning process.
