1. Record Nr. UNINA9910146309303321

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Titolo	Numerical Methods for Optimal Control Problems with State Constraints / / by Radoslaw Pytlak
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1999
ISBN	3-540-48662-3
Edizione	[1st ed. 1999.]
Descrizione fisica	1 online resource (XV, 218 p.)
Collana	Lecture Notes in Mathematics, , 1617-9692 ; ; 1707
Disciplina	510
Soggetti	System theory Control theory Mathematical optimization Calculus of variations Numerical analysis Econometrics Systems Theory, Control Calculus of Variations and Optimization Numerical Analysis Quantitative Economics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Estimates on solutions to differential equations and their approximations -- First order method -- Implementation -- Second order method -- Runge-Kutta based procedure for optimal control of differential— Algebraic Equations.
Sommario/riassunto	While optimality conditions for optimal control problems with state constraints have been extensively investigated in the literature the results pertaining to numerical methods are relatively scarce. This book fills the gap by providing a family of new methods. Among others, a novel convergence analysis of optimal control algorithms is introduced. The analysis refers to the topology of relaxed controls only to a limited degree and makes little use of Lagrange multipliers corresponding to state constraints. This approach enables the author to provide global

convergence analysis of first order and superlinearly convergent second order methods. Further, the implementation aspects of the methods developed in the book are presented and discussed. The results concerning ordinary differential equations are then extended to control problems described by differential-algebraic equations in a comprehensive way for the first time in the literature.