

1. Record Nr.	UNINA9910456123003321
Autore	Rothe Heinz J
Titolo	Classical and quantum dynamics of constrained Hamiltonian systems [[electronic resource] /] / Heinz J Rothe, Klaus D Rothe
Pubbl/distr/stampa	New Jersey, : World Scientific, 2010
ISBN	1-282-76361-X 9786612763618 981-4299-65-0
Descrizione fisica	1 online resource (316 p.)
Collana	World scientific lecture notes in physics, , 1793-1436 ; ; v. 81
Altri autori (Persone)	RotheKlaus D (Klaus Dieter)
Disciplina	530.12
Soggetti	Quantum theory Hamiltonian systems Constraints (Physics) Gauge fields (Physics) Mathematical physics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. [291]-299) and index.
Nota di contenuto	Preface; Notation; Contents; 1 Introduction; 2 Singular Lagrangians and Local Symmetries; 3 Hamiltonian Approach. The Dirac Formalism; 4 Symplectic Approach to Constrained Systems; 5 Local Symmetries within the Dirac Formalism; 6 The Dirac Conjecture; 7 BFT Embedding of Second Class Systems; 8 Hamilton-Jacobi Theory of Constrained Systems; 9 Operator Quantization of Second Class Systems; 10 Functional Quantization of Second Class Systems; 11 Dynamical Gauges. BFV Functional Quantization; 12 Field-Antifield Quantization; A Local Symmetries and Singular Lagrangians B The BRST Charge of Rank One C BRST Hamiltonian of Rank One D The FV Principal Theorem; E BRST Quantization of SU(3) Yang-Mills Theory in -gauges; Bibliography; Index
Sommario/riassunto	This book is an introduction to the field of constrained Hamiltonian systems and their quantization, a topic which is of central interest to theoretical physicists who wish to obtain a deeper understanding of the quantization of gauge theories, such as describing the fundamental

interactions in nature. Beginning with the early work of Dirac, the book covers the main developments in the field up to more recent topics, such as the field-antifield formalism of Batalin and Vilkovisky, including a short discussion of how gauge anomalies may be incorporated into this formalism. The book is comprehen
