

1. Record Nr.	UNINA9910826072203321
Autore	Giachetta G
Titolo	Geometric and algebraic topological methods in quantum mechanics [[electronic resource] /] / Giovanni Giachetta & Luigi Mangiarotti, Gennadi Sardanashvily
Pubbl/distr/stampa	Singapore ; ; Hackensack, N.J., : World Scientific, c2005
ISBN	1-281-89700-0 9786611897000 981-270-126-5
Descrizione fisica	1 online resource (715 p.)
Altri autori (Persone)	MangiarottiL SardanashviliG. A (Gennadii Aleksandrovich)
Disciplina	530.12
Soggetti	Quantum theory Geometric quantization Topology Mathematical physics
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. 661-681) and index.
Nota di contenuto	Preface; Contents; Introduction; Chapter 1 Commutative geometry; Chapter 2 Classical Hamiltonian system; Chapter 3 Algebraic quantization; Chapter 4 Geometry of algebraic quantization; Chapter 5 Geometric quantization; Chapter 6 Supergeometry; Chapter 7 Deformation quantization; Chapter 8 Non-commutative geometry; Chapter 9 Geometry of quantum groups; Chapter 10 Appendixes; Bibliography; Index
Sommario/riassunto	In the last decade, the development of new ideas in quantum theory, including geometric and deformation quantization, the non-Abelian Berry's geometric factor, super- and BRST symmetries, non- commutativity, has called into play the geometric techniques based on the deep interplay between algebra, differential geometry and topology. The book aims at being a guide to advanced differential geometric and topological methods in quantum mechanics. Their main peculiarity lies in the fact that geometry in quantum theory speaks mainly the algebraic language of rings, modules, sheaves and categories. Ge

