1. Record Nr. UNINA9910464689303321

Titolo	LHC physics / / edited by T. Binoth. [et al.]
Pubbl/distr/stampa	Boca Raton, Fla. : , : CRC Press, , 2012
ISBN	0-429-10629-7 1-4398-3771-6
Descrizione fisica	1 online resource (408 p.)
Collana	Scottish graduate series
Altri autori (Persone)	BinothT
Disciplina	539.7/36
Soggetti	Large Hadron Collider (France and Switzerland) Particles (Nuclear physics) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	A Taylor & Francis book.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Front Cover; SUSSP Proceedings; Lecturers; Organising Committee; Preface; Thomas Binoth; Contents; Section I: Theoretical Foundations; Perturbative QCD and the Parton Model; Higgs and Electroweak Physics; B Physics in the LHC Era; BSM Phenomenology; Section II: The Large Hadron Collider; The LHC Accelerator: Performance and Technology Challenges; LHC Detectors and Early Physics; Forward Physics at the LHC; Heavy-Ion Physics; New Physics Searches; Section III: Tools; Monte Carlo Tools; Topics in Statistical Data Analysis for HEP; Grid Computing
Sommario/riassunto	Exploring the phenomenology of the Large Hadron Collider (LHC) at CERN, LHC Physics focuses on the first years of data collected at the LHC as well as the experimental and theoretical tools involved. It discusses a broad spectrum of experimental and theoretical activity in particle physics, from the searches for the Higgs boson and physics beyond the Standard Model to studies of quantum chromodynamics, the B-physics sector, and the properties of dense hadronic matter in heavy-ion collisions.Covering the topics in a pedagogical manner, the book introduces the theoretical and phenomenological framework of hadron collisions and presents the current theoretical models of frontier physics. It offers overviews of the main detector components, the initial calibration procedures, and search strategies. The authors also provide explicit examples of physics analyses drawn from the

	recently shut down Tevatron. In the coming years, or perhaps even sooner, the LHC experiments may reveal the Higgs boson and offer insight beyond the Standard Model. Written by some of the most prominent and active researchers in particle physics, this volume equips new physicists with the theory and tools needed to understand the various LHC experiments and prepares them to make future contributions to the field--

2. Record Nr. UNINA9910458929903321

Autore	Senanayake Nadine
Titolo	Asset-backed securitization and the financial crisis [[electronic resource]] : the product and market functions of asset-backed securitization : retrospect and prospect / / Nadine Senanayake
Pubbl/distr/stampa	Hamburg, : Diplomica Verlag, 2010
ISBN	3-8366-4141-0
Descrizione fisica	1 online resource (79 p.)
Disciplina	346.092
Soggetti	Asset-backed financing Global Financial Crisis, 2008-2009 Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from cover.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Asset-backed Securitization and the Financial Crisis; Table of Contents; Outline; Table of Figures; List of Tables; List of abbreviations; Abstract; Introduction; Chapter 1: Initiating the product and market functions of ABS; Chapter 2: Initiating the Market Functions of ABS; Chapter 3: Risks and Solutions; 4. Conclusion; 5. Bibliography; Appendix
Sommario/riassunto	The study aims at analyzing the product and market functions of Asset-Backed Securities (ABS) by firstly, distinguishing characteristics of the product functions and market functions in relation to Asset-Backed Securitization within a general compass. The product functions the author refers to the phase prior to the issuing of securities, namely the structuring phase. Thus, the author will be drawing from history and developments in the market, players involved in the structuring

process and descriptions of the basic product functions. Secondly, the author will elaborate on the market function

3. Record Nr. UNINA9910797964703321

Autore	Bernevig B. Andrei <1978->
Titolo	Topological insulators and topological superconductors / / B. Andrei Bernevig with Taylor L. Hughes
Pubbl/distr/stampa	Princeton, New Jersey ; ; Oxford, [England] : , : Princeton University Press, , 2013 ©2013
ISBN	1-4008-4673-0
Edizione	[Course Book]
Descrizione fisica	1 online resource (260 p.)
Classificazione	UP 2200
Disciplina	530.41
Soggetti	Energy-band theory of solids Superconductivity Solid state physics - Mathematics Superconductors - Mathematics
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 and index.
Nota di contenuto	Front matter -- Contents -- 1. Introduction -- 2. Berry Phase -- 3. Hall Conductance and Chern Numbers -- 4. Time-Reversal Symmetry -- 5. Magnetic Field on the Square Lattice -- 6. Hall Conductance and Edge Modes: The Bulk-Edge Correspondence -- 7. Graphene -- 8. Simple Models for the Chern Insulator -- 9. Time-Reversal-Invariant Topological Insulators -- 10. Z2 Invariants -- 11. Crossings in Different Dimensions -- 12. Time-Reversal Topological Insulators with Inversion Symmetry -- 13. Quantum Hall Effect and Chern Insulators in Higher Dimensions -- 14. Dimensional Reduction of 4-D Chern Insulators to 3-D Time-Reversal Insulators -- 15. Experimental Consequences of the Z2 Topological Invariant -- 16. Topological Superconductors in One and Two Dimensions / Hughes, Taylor L. -- 17. Time-Reversal-Invariant Topological Superconductors / Hughes, Taylor L. -- 18. Superconductivity and Magnetism in Proximity to Topological Insulator Surfaces / Hughes, Taylor L. -- APPENDIX -- 3-D

Topological Insulator in a Magnetic Field -- References -- Index

Sommario/riassunto

This graduate-level textbook is the first pedagogical synthesis of the field of topological insulators and superconductors, one of the most exciting areas of research in condensed matter physics. Presenting the latest developments, while providing all the calculations necessary for a self-contained and complete description of the discipline, it is ideal for graduate students and researchers preparing to work in this area, and it will be an essential reference both within and outside the classroom. The book begins with simple concepts such as Berry phases, Dirac fermions, Hall conductance and its link to topology, and the Hofstadter problem of lattice electrons in a magnetic field. It moves on to explain topological phases of matter such as Chern insulators, two- and three-dimensional topological insulators, and Majorana p-wave wires. Additionally, the book covers zero modes on vortices in topological superconductors, time-reversal topological superconductors, and topological responses/field theory and topological indices. The book also analyzes recent topics in condensed matter theory and concludes by surveying active subfields of research such as insulators with point-group symmetries and the stability of topological semimetals. Problems at the end of each chapter offer opportunities to test knowledge and engage with frontier research issues. Topological Insulators and Topological Superconductors will provide graduate students and researchers with the physical understanding and mathematical tools needed to embark on research in this rapidly evolving field.