1. Record Nr.   UNINA9910452287103321

Titolo   Complex quantum systems [[electronic resource]] : analysis of large Coulomb systems / / editor: Heinz Siedentop

Pubbl/distr/stampa   [Hackensack], NJ, : World Scientific, c2013

ISBN   981-4460-15-X

Descrizione fisica   1 online resource (303 p.)

Collana   Lecture notes series, , 1793-0758 ; ; v. 24

Altri autori (Persone)   SiedentopHeinz

Disciplina   530.12

Soggetti   Quantum statistics
Quantum electrodynamics - Mathematics
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.

Nota di contenuto   CONTENTS; Foreword; Preface; Stability of Matter Rafael D. Benguria and Benjamn A. Loewe; 1. Introduction: The stability of quantum systems: A historical overview; 2. Stability of Matter: The classical proof of Lieb and Thirring; 2.1. Stability of the hydrogen atom in non-relativistic quantum mechanics; 2.2. Stability of a system of N electrons in non-relativistic quantum mechanics; 2.3. Stability of a many particle system via Thomas-Fermi theory; 2.4. Bibliographical remarks; 3. Lieb-Thirring Inequalities
3.1. Use of commutation methods to prove the Lieb-Thirring inequality for = 3/2 in dimension 13.2. The Eden-Foias bound ([46]); 3.3. Bibliographical remarks; 4. Electrostatic Inequalities; 5. The Maximum Number of Electrons an Atom Can Bind; 5.1. The maximum number of electrons for a one center case in the Thomas-Fermi model; 5.2. Bound on Nc(Z) for the TFW model in the atomic case; 6. The Stability of Matter for a Relativistic Toy Model; 6.1. Bibliographical remarks; 7. A New Lieb-Oxford Bound with Gradient Corrections; Acknowledgments; Appendix: A Short History of the Atom; References
Mathematical Density and Density Matrix Functional Theory (DFT and DMFT) Volker Bach1. Introduction; 2. Exchange Correlation and LDA; 3. Kinetic Energy and Lieb-Thirring Inequality; 4. Thomas-Fermi Theory and Stability of Matter; 5. Hartree-Fock Theory; 6. Correlation Estimate Improving the Lieb-Oxford Inequality; 7. Accuracy of the Hartree-Fock

Approximation for Large Neutral Atoms; 8. N-Representability; Acknowledgments; References; On the Dynamics of a Fermi Gas in a Random Medium with Dynamical Hartree-Fock Interactions Thomas Chen; 1. Introduction; Acknowledgment

ReferencesOn the Minimization of Hamiltonians over Pure Gaussian States Jan Derezinski, Marcin Napiorkowski, and Jan Philip Solovej; 1. Introduction; Acknowledgments; 2. Preliminaries; 2.1. 2nd quantization; 2.2. Wick quantization; 2.3. Bogoliubov transformations; 2.4. Pure Gaussian states; 3. Main Result; References; Variational Approach to Electronic Structure Calculations on Second-Order Reduced Density Matrices and the N-Representability Problem Maho Nakata, Mituhiro Fukuda, and Katsuki Fujisawa; 1. Introduction; 2. The Reduced-Density-Matrix Method; 2.1. Pure states and ensemble states 2.2. The first-order and second-order reduced density matrices

Sommario/riassunto	This volume is based on lectures given during the program Complex Quantum Systems held at the National University of Singapore's Institute for Mathematical Sciences from 17 February to 27 March 2010. It guides the reader through two introductory expositions on large Coulomb systems to five of the most important developments in the field: derivation of mean field equations, derivation of effective Hamiltonians, alternative high precision methods in quantum chemistry, modern many body methods originating from quantum information, and - the most complex - semirelativistic quantum electrodynamics.

2. Record Nr.   UNINA9910698973603321

    Autore   Pienkos Philip T

    Titolo   Breakout session regulatory/policy session 1-9 [[electronic resource] /]
                              / Philip Pienkos, Grant Heffelfinger

    Pubbl/distr/stampa   [Boulder, Colo.] : , : [National Renewable Energy Laboratory], , [2008]

    Descrizione fisica   1 online resource (12 pages)

    Collana   NREL/PR-510-45619

    Altri autori (Persone)   HeffelfingerGrant

    Soggetti   Biomass energy - United States - Regulations
                              Waste products as fuel - United States - Regulations
                              Renewable energy sources - United States - Regulations
                              Energy conversion - United States - Regulations
                              Conference papers and proceedings.

    Lingua di pubblicazione   Inglese

    Formato   Materiale a stampa

    Livello bibliografico   Monografia

    Note generali   Title from PDF title screen (viewed Oct. 23, 2009).
                              "Presented at the National Algal Biofuels Technology Roadmap
                              Workshop Conference, 9-11 December 2008, University of Maryland."
                              "December 9, 2008."

3.

Record Nr.	UNISA996321167903316
Titolo	Acta Societatis Botanicorum Poloniae
Pubbl/distr/stampa	Warszawa [etc., : Panstwowe Wydawn. Nauk., etc.]
ISSN	2083-9480
Descrizione fisica	1 online resource
Altri autori (Persone)	GodlewskiEmil <1847-1930>
Disciplina	581/.05
Soggetti	Plants - Poland Botany Botanique Botanique - Pologne
Lingua di pubblicazione	Polacco
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Vol. 5 issued in honor of the 80th birthday of E. Godlewski: Ksiega jubileuszowa Emila Godlewskiego (sen.) Livre jubilaire Emile Godlewski (sen.). Refereed/Peer-reviewed
Sommario/riassunto	Vols. 1-4 include section: "Polska bibljografja botaniczne (Bibliographie botanique polonaise)." List of members in v. 4, no. 2, 1927.