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Quantum Transport in Mesoscopic Systems

Edited by

David Sánchez and Michael Moskalets

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Quantum Transport In Mesoscopic Systems

David Sánchez, Michael Moskalets



Quantum Transport In Mesoscopic Systems:

Quantum Transport in Mesoscopic Systems David Sánchez, Michael Moskalets, 2021-01-06 Mesoscopic physics deals with systems larger than single atoms but small enough to retain their quantum properties. The possibility to create and manipulate conductors of the nanometer scale has given birth to a set of phenomena that have revolutionized physics: quantum Hall effects, persistent currents, weak localization, Coulomb blockade, etc. This Special Issue tackles the latest developments in the field. Contributors discuss time-dependent transport, quantum pumping, nanoscale heat engines and motors, molecular junctions, electron-electron correlations in confined systems, quantum thermoelectrics, and current fluctuations. The works included herein represent an up-to-date account of exciting research with a broad impact in both fundamental and applied topics.

Electronic Transport in Mesoscopic Systems Supriyo Datta, 1997-05-15 A thorough account of the theory of electronic transport in semiconductor nanostructures.

Quantum Transport in Mesoscopic Systems David Sánchez, Michael Moskalets, 2021 Mesoscopic physics deals with systems larger than single atoms but small enough to retain their quantum properties. The possibility to create and manipulate conductors of the nanometer scale has given birth to a set of phenomena that have revolutionized physics: quantum Hall effects, persistent currents, weak localization, Coulomb blockade, etc. This Special Issue tackles the latest developments in the field. Contributors discuss time-dependent transport, quantum pumping, nanoscale heat engines and motors, molecular junctions, electron-electron correlations in confined systems, quantum thermoelectrics, and current fluctuations. The works included herein represent an up-to-date account of exciting research with a broad impact in both fundamental and applied topics.

Quantum Transport in Mesoscopic Systems Pier A. Mello, Narendra Kumar, 2004 This text presents the statistical theory of wave scattering and quantum transport in complex, chaotic and disordered systems.

Quantum Transport in Macroscopic and Mesoscopic Systems Alan David Lawrence Liebert, 1989

Geometric Phase and Quantum Transport in Mesoscopic Systems 田田, Shiliang Zhu, 2017-01-27 This dissertation Geometric Phase and Quantum Transport in Mesoscopic Systems by Shiliang Zhu was obtained from The University of Hong Kong Pokfulam Hong Kong and is being sold pursuant to Creative Commons Attribution 3.0 Hong Kong License. The content of this dissertation has not been altered in any way. We have altered the formatting in order to facilitate the ease of printing and reading of the dissertation. All rights not granted by the above license are retained by the author.

Abstract: Abstract of the thesis entitled GEOMETRIC PHASE AND QUANTUM TRANSPORT IN MESOSCOPIC SYSTEMS submitted by Zhu Shiliang for the Degree of Doctor of Philosophy at The University of Hong Kong in March. The nonadiabatic noncyclic geometric phase Pancharatanam phase plays a key role in some physical systems. An approach was developed to calculate this phase for a quantum spin particle subject to an arbitrary magnetic field. This approach can be used for all two-level systems and was applied to three specific

kinds of magnetic fields. A kind of topological transition in a mesoscopic ring
 subject to an in-plane magnetic field was proposed and then nonadiabatic effect on this phenomenon was addressed.
 The generalization of Yang's theory from the U-gauge field to the non-Abelian $U(1)$ gauge field is presented. Based on this generalization, spin
 Hall effect and taking into account the Pancharatnam phase as well as an effective
 Aharonov-Bohm AB phase in nonadiabatic noncyclic transport, the ensemble
 average Fourier spectrum of the conductance in disordered mesoscopic rings
 connected to two leads was calculated. The observed splitting stems from the
 nonadiabatic noncyclic Pancharatnam phase and the effective AB phase, both being dependent on spin-orbit SO coupling.
 Then nonadiabatic correction on the quantum computation using coupled low-capacitance Josephson junctions was studied. It has
 been found that the nonadiabatic effect is important in performing geometric quantum computation.
 The persistent current in a normal metal mesoscopic ring was shown to
 be determined from the total geometric phase. The geometric phase and the
 persistent current in a ring subject to a cylindrically symmetric electromagnetic field were studied. The Pancharatnam phase has
 been found to recover the Aharonov-Andaman phase in the case of cyclic evolution as well as the Berry's
 phase in the adiabatic evolution. Moreover, the persistent current induced by
 the SO-induced geometric phase was observed in the presence of a local magnetic field.
 Finally, a recursive Green's function technique was developed to calculate the spin-independent conductance of a quantum
 point contact (QPC) which is of current interest in fundamental physics. For a QPC in the presence of the
 Rashba-SO interaction, some oscillations in the quantized conductance induced
 by the SO interaction were observed in numerical calculations. These oscillations may stem from the multiple reflections associated with SO coupling.

DOI: 10.5353/th_b3014775 Subjects: Mesoscopic phenomena; Physics; Geometric quantum phases; Transport theory. **Time Dependent Study of Quantum Transport in Mesoscopic Systems** □□□, Ching-Hong Yiu, 2017-01-27. This dissertation, *Time Dependent Study of Quantum Transport in Mesoscopic Systems* by Ching hong Yiu, was obtained from The University of Hong Kong Pokfulam Hong Kong and is being sold pursuant to Creative Commons Attribution 3.0 Hong Kong License. The content of this dissertation has not been altered in any way. We have altered the formatting in order to facilitate the ease of printing and reading of the dissertation. All rights not granted by the above license are retained by the author. DOI: 10.5353/th_b3121485 Subjects: Mesoscopic phenomena; Physics; Quantum theory; Transport theory. *Weakly Nonlinear and Low Frequency Quantum Transport in Mesoscopic Systems* □□□, Qingrong Zheng, 2017-01-27. [Quantum Transport Study of Mesoscopic Systems and Nanostructures](#) Fuming Xu, 2017-01-26. [Quantum Transport and Interference Effects in Mesoscopic Systems](#) Antônio M. S. Macêdo, 1995. **Time**

Dependent Study of Quantum Transport in Mesoscopic Systems Ching-hong Yiu, University of Hong Kong, 1997

Current Conserving AC Quantum Transport in Two-Dimensional Mesoscopic Systems 何國權, Wing-Chung Kwok, 2017-01-27

Quantum Transport and Dynamics of Phonons in Mesoscopic Systems Deborah Hannah Santamore, California Institute of Technology. Division of Engineering and Applied Science, 2003

Weakly Nonlinear and Low Frequency Quantum Transport in Mesoscopic Systems Qingrong Zheng, University of Hong Kong, 1998

Quantum Transport Study of Mesoscopic Systems and Nanostructures Fuming Xu (M. Phil.), University of Hong Kong, 2011

Functional Renormalization Group Studies of Quantum Transport Through Mesoscopic Systems Severin Georg Jakobs, 2009

Quantum Transport and Quantum Measurement in Mesoscopic Systems: Reduced Density Matrix Approach Junyan Luo, 2010

Quantum Transport and Dissipation Thomas Dittrich, 1998-03-04

The increasing emphasis and importance of mesoscopic systems for tomorrow's high tech electronics industry as well as a growing research interest in the subject has given rise to the need for a modern introductory text at the graduate level. This book aims to provide the necessary theory and tools to carry out research into the various aspects of the subject. It starts with a chapter on the theory of quantum transport giving a survey of the basic theory used in transport phenomena including scattering linear response theory weak localization conductance fluctuations and the Landauer-Büttiker formalism. Various aspects of chaos in quantum systems as well as dissipative quantum systems are discussed. Other topics of importance such as single electron tunneling driven bistable systems quantized transport and electron liquids are also covered in detail. Graduate students as well as newcomers to this exciting and expanding field will find this work useful to adopt the necessary theory and overview required to go deeper into the original literature and to carry out research.

Collective Electronic Excitations in Solids and Quantum Transport in Mesoscopic Systems Xiaoju Wu, 1996

Current Conserving AC Quantum Transport in Two-dimensional Mesoscopic Systems Wing-chung Kwok, University of Hong Kong, 1999

Unveiling the Energy of Verbal Art: An Emotional Sojourn through **Quantum Transport In Mesoscopic Systems**

In some sort of inundated with displays and the cacophony of quick communication, the profound power and emotional resonance of verbal artistry often diminish into obscurity, eclipsed by the regular assault of noise and distractions. However, located within the lyrical pages of **Quantum Transport In Mesoscopic Systems**, a interesting work of fictional splendor that pulses with raw feelings, lies an memorable trip waiting to be embarked upon. Composed by a virtuoso wordsmith, this enchanting opus courses visitors on a mental odyssey, delicately exposing the latent possible and profound influence stuck within the complicated web of language. Within the heart-wrenching expanse with this evocative evaluation, we shall embark upon an introspective exploration of the book is central themes, dissect their captivating writing model, and immerse ourselves in the indelible impression it leaves upon the depths of readers souls.

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