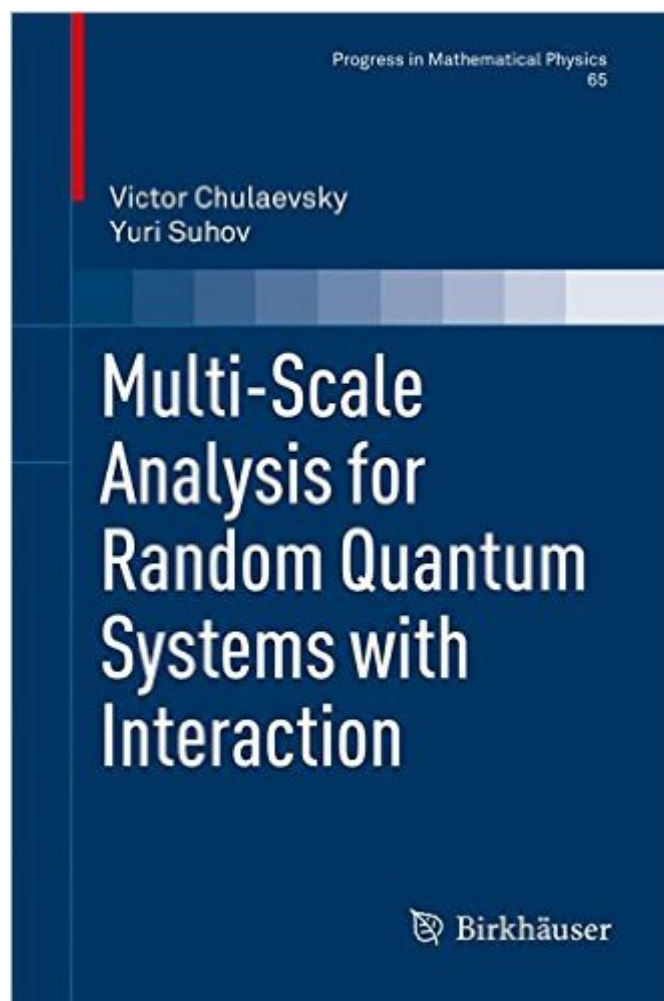


The book was found

Multi-scale Analysis For Random Quantum Systems With Interaction (Progress In Mathematical Physics)



Synopsis

The study of quantum disorder has generated considerable research activity in mathematics and physics over past 40 years. While single-particle models have been extensively studied at a rigorous mathematical level, little was known about systems of several interacting particles, let alone systems with positive spatial particle density. Creating a consistent theory of disorder in multi-particle quantum systems is an important and challenging problem that largely remains open. *Multi-scale Analysis for Random Quantum Systems with Interaction* presents the progress that had been recently achieved in this area. The main focus of the book is on a rigorous derivation of the multi-particle localization in a strong random external potential field. To make the presentation accessible to a wider audience, the authors restrict attention to a relatively simple tight-binding Anderson model on a cubic lattice \mathbb{Z}^d . This book includes the following cutting-edge features: an introduction to the state-of-the-art single-particle localization theory an extensive discussion of relevant technical aspects of the localization theory a thorough comparison of the multi-particle model with its single-particle counterpart a self-contained rigorous derivation of both spectral and dynamical localization in the multi-particle tight-binding Anderson model. Required mathematical background for the book includes a knowledge of functional calculus, spectral theory (essentially reduced to the case of finite matrices) and basic probability theory. This is an excellent text for a year-long graduate course or seminar in mathematical physics. It also can serve as a standard reference for specialists.

Book Information

Series: Progress in Mathematical Physics (Book 65)

Hardcover: 238 pages

Publisher: Birkh user; 2014 edition (September 20, 2013)

Language: English

ISBN-10: 1461482259

ISBN-13: 978-1461482253

Product Dimensions: 6.1 x 0.6 x 9.2 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #10,343,648 in Books (See Top 100 in Books) #77 in Books > Computers & Technology > Programming > Software Design, Testing & Engineering > Localization #2760 in Books > Science & Math > Mathematics > Pure Mathematics > Functional Analysis #6431

inÂ Books > Textbooks > Science & Mathematics > Mathematics > Calculus

[Download to continue reading...](#)

Multi-scale Analysis for Random Quantum Systems with Interaction (Progress in Mathematical Physics) Health Professional and Patient Interaction, 8e (Health Professional & Patient Interaction (Purtilo)) The Quantum World: Quantum Physics for Everyone Mathematical Physics of Quantum Wires and Devices: From Spectral Resonances to Anderson Localization (Mathematics and Its Applications) Ultracold Quantum Fields (Theoretical and Mathematical Physics) 250 Random Facts Everyone Should Know: A Collection of Random Facts Useful for the Odd Pub Quiz Night Get-Together or as Conversation Starters Probability, Random Variables, And Random Signal Principles An Introduction to Quantum Spin Systems (Lecture Notes in Physics) Tupac Shakur: Multi-platinum Rapper: Multi-Platinum Rapper (Lives Cut Short) Mathematical Interest Theory (Mathematical Association of America Textbooks) Pocket Neighborhoods: Creating Small-Scale Community in a Large-Scale World Scale Studies for Viola: Based on the Hrimaly Scale Studies for the Violin Rand McNally 2017 Large Scale Road Atlas (Rand Mcnally Large Scale Road Atlas USA) L590 - Progressive Scale Studies - Scale Study and Practical Theory in Major and Minor Keys for the Young Violinist Physics for Scientists and Engineers with Modern Physics: Volume II (3rd Edition) (Physics for Scientists & Engineers) Head First Physics: A learner's companion to mechanics and practical physics (AP Physics B - Advanced Placement) Network Analysis in Archaeology: New Approaches to Regional Interaction Quantum Physics for Babies (Volume 1) Quantum Information for Babies (Physics for Babies) (Volume 5) Quantum Entanglement for Babies (Physics for Babies) (Volume 4)

[Dmca](#)