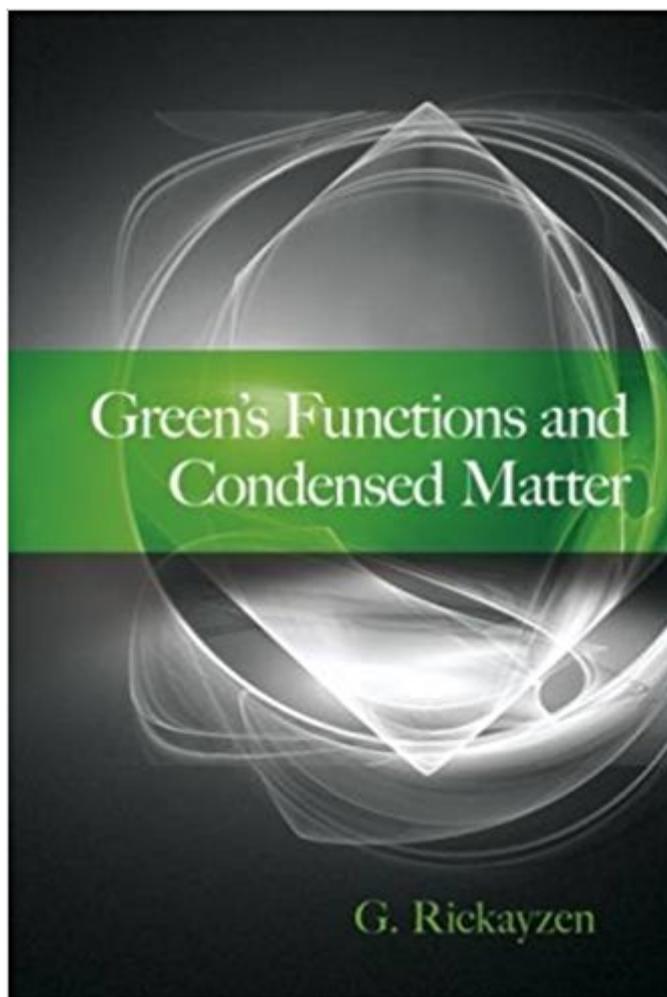


The book was found

Green's Functions And Condensed Matter (Dover Books On Physics)



Synopsis

Green's functions, named for the mathematician who developed them in the 1830s, possess applications in many areas of physics. This volume presents the basic theoretical formulation, followed by specific applications, and is suitable for advanced undergraduates, graduate students, and professionals in the area of condensed matter physics. Beginning with a description of Green's function in classical physics from a modern point of view, the text progresses to the definition and properties of Green's functions in quantum physics. Most of the book explores applications, focusing on transport coefficients of a metal, the Coulomb gas, Fermi liquids, electrons and phonons, superconductivity, superfluidity, and magnetism. The treatment assumes a good working knowledge of quantum mechanics and a familiarity with the occupation number representation. An appendix provides the main formulas and the correspondence with wave mechanics. Each chapter concludes with references and problems for further study.

Book Information

Series: Dover Books on Physics

Paperback: 368 pages

Publisher: Dover Publications; Reprint edition (May 22, 2013)

Language: English

ISBN-10: 0486499847

ISBN-13: 978-0486499840

Product Dimensions: 5.9 x 0.9 x 8.9 inches

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

Average Customer Review: 4.5 out of 5 stars [See all reviews](#) (2 customer reviews)

Best Sellers Rank: #976,549 in Books (See Top 100 in Books) #317 in [Books > Science & Math > Physics > Solid-State Physics](#) #680 in [Books > Science & Math > Physics > Electromagnetism](#) #229485 in [Books > Reference](#)

Customer Reviews

I am thrilled to see this book being re-printed. This is a graduate level textbook suitable for students with a background in undergraduate QM, solids, stat mech. What makes this book different from say, AGD or Fetter/Walecka (which are both fine texts), is that towards the later part of the book there are more actual applications. The superconductivity chapter is particularly good and I like the metal-transport one as well. Since most people who are going to read this intend on doing research, you might want to pair it with another modern book since it does not include path integrals. I have a

combination of this, bruus flensberg, negele/orland or atland/simons, and AGD floating around the office at most times.

In order to find this book useful, the reader needs much more than a background equivalent to graduate level courses in solid state physics and an acquaintance with Green's functions, he also needs a knowledge of quantum field theory (QFT) at the level of Ryder's Quantum Field Theory. Feynman diagrams abound in this volume, and the reader needs to be quite familiar with them in order to understand this treatment. For the reader with an adequate knowledge of QFT, however, this book is quite useful. The discussion of the BCS (Bardeen-Cooper-Schrieffer) theory of superconductivity in solids is especially good.

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

Green's Functions and Condensed Matter (Dover Books on Physics) Green Smoothies - Top 200 Green Smoothie Recipes: (Green Smoothies, Green Smoothie Recipes, Green Smoothie Cleanse, Green Smoothie Diet, Green Smoothie for Everyday, Healthy Juice) Soft Condensed Matter (Oxford Master Series in Condensed Matter Physics, Vol. 6) It Does Matter!: Different States of Matter (For Kiddie Learners): Physics for Kids - Molecular Theory (Children's Physics Books) 10 Day Green Smoothie Cleanse: Lose 15lbs with 10 Day Green smoothie diet For Weight Loss. Weight loss green smoothie recipes, green smoothies: Sip Up, Slim Down ! Lose upto 15 Lbs in 10 Days! Protein Physics, Second Edition: A Course of Lectures (Soft Condensed Matter, Complex Fluids and Biomaterials) Many-Body Quantum Theory in Condensed Matter Physics: An Introduction (Oxford Graduate Texts) Condensed Matter Physics Matter, Dark Matter, and Anti-Matter: In Search of the Hidden Universe (Springer Praxis Books) Neutrons, Nuclei and Matter: An Exploration of the Physics of Slow Neutrons (Dover Books on Physics) Energy Landscapes, Inherent Structures, and Condensed-Matter Phenomena Neutron, X-rays and Light. Scattering Methods Applied to Soft Condensed Matter (North-Holland Delta Series) Polymers and Neutron Scattering (Oxford Series on Neutron Scattering in Condensed Matter) Quantum Liquids: Bose Condensation and Cooper Pairing in Condensed-Matter Systems (Oxford Graduate Texts) 10 Day Green Smoothie Cleanse: Detox Your Body with 10 Day Green Smoothie Cleanse and Lose Weight with Low Carb Cookbook (smoothies, green smoothie recipes, ... cookbooks, smoothies , sugar detox) Leadership Roles and Management Functions in Nursing: Theory and Application (Marquis, Leadership Roles and Management Functions in Nursing) Microsoft Excel 2013 Functions & Formulas Quick Reference Card (4-page Cheat Sheet focusing on examples and context for intermediate-to-advanced functions and formulas- Laminated Guide) Microsoft Excel 2010 Functions & Formulas Quick

Reference Guide (4-page Cheat Sheet focusing on examples and context for intermediate-to-advanced functions and formulas- Laminated Guide) Physics of Shock Waves and High-Temperature Hydrodynamic Phenomena (Dover Books on Physics) Electronic Structure and the Properties of Solids: The Physics of the Chemical Bond (Dover Books on Physics)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)