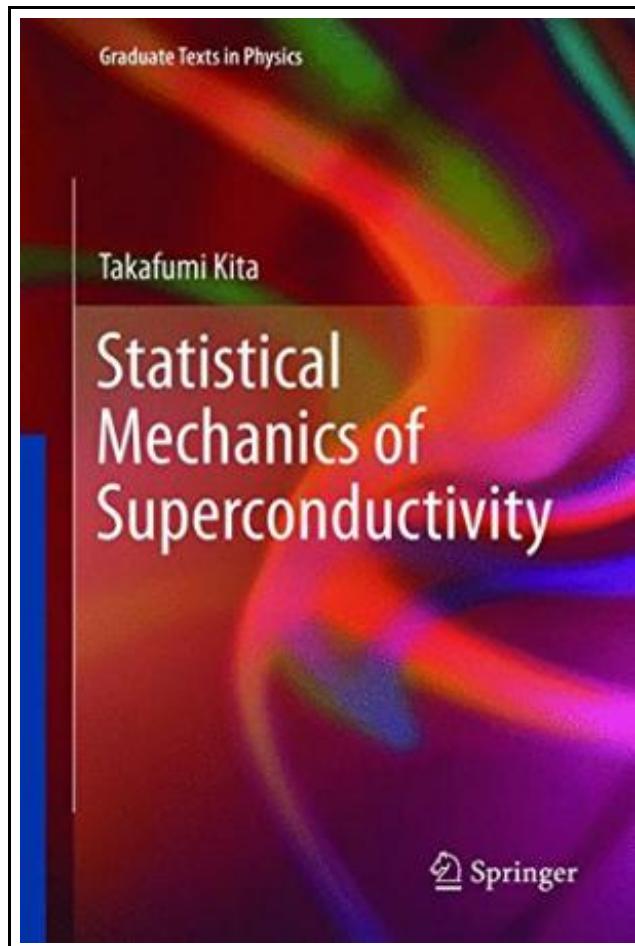


Statistical Mechanics of Superconductivity



Filesize: 3.96 MB

Reviews

This is the greatest book i have got read through till now. I could possibly comprehended almost everything out of this published e book. Your daily life span will probably be enhance the instant you total looking at this book.

(Bernadette Baumbach)

STATISTICAL MECHANICS OF SUPERCONDUCTIVITY

[DOWNLOAD](#)

Springer Verlag, Japan. Hardback. Book Condition: new. BRAND NEW, Statistical Mechanics of Superconductivity, Takafumi Kita, This book provides a theoretical, step-by-step comprehensive explanation of superconductivity for undergraduate and graduate students who have completed elementary courses on thermodynamics and quantum mechanics. To this end, it adopts the unique approach of starting with the statistical mechanics of quantum ideal gases and successively adding and clarifying elements and techniques indispensable for understanding it. They include the spin-statistics theorem, second quantization, density matrices, the Bloch-De Dominicis theorem, the variational principle in statistical mechanics, attractive interaction and bound states. Ample examples of their usage are also provided in terms of topics from advanced statistical mechanics such as two-particle correlations of quantum ideal gases, derivation of the Hartree-Fock equations, and Landau's Fermi-liquid theory, among others. With these preliminaries, the fundamental mean-field equations of superconductivity are derived with maximum mathematical clarity based on a coherent state in terms of the Cooper-pair creation operator, a quasiparticle field for describing the excitation and the variational principle in statistical mechanics. They have the advantage that the phase coherence due to the Cooper-pair condensation can be clearly seen making the superfluidity comprehensible naturally. Subsequently, they are applied to homogeneous cases to describe the BCS theory for classic s-wave superconductors and its extension to the p-wave superfluidity of 3He. Later, the mean-field equations are simplified to the Eilenberger and Ginzburg-Landau equations so as to describe inhomogeneous superconductivity such as Abrikosov's flux-line lattice concisely and transparently. Chapters provide the latest studies on the quasiclassical theory of superconductivity and a discovery of p-wave superfluidity in liquid 3He. The book serves as a standard reference for advanced courses of statistical mechanics with exercises along with detailed answers.

[Read Statistical Mechanics of Superconductivity Online](#)[Download PDF Statistical Mechanics of Superconductivity](#)

Relevant Kindle Books



Tinga Tinga Tales: Why Lion Roars - Read it Yourself with Ladybird

Paperback. Book Condition: New. Not Signed; This is a Tinga Tinga tale inspired by traditional stories from Africa. Lion is king of Tinga Tinga but he can't roar! Can his friend Flea help Lion to...

[Read PDF »](#)



Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success

Brookes Publishing Co. Paperback. Book Condition: new. BRAND NEW, Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success, Eva M. Horn, Susan B. Palmer, Gretchen D. Butera, Joan A. Lieber, How...

[Read PDF »](#)



A Smarter Way to Learn JavaScript: The New Approach That Uses Technology to Cut Your Effort in Half (Paperback)

Createspace, United States, 2014. Paperback. Book Condition: New. 251 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.The ultimate learn-by-doing approachWritten for beginners, useful for experienced developers who want to...

[Read PDF »](#)



Mass Media Law: The Printing Press to the Internet (Paperback)

Peter Lang Publishing Inc, United States, 2013. Paperback. Book Condition: New. New.. 251 x 175 mm. Language: English . Brand New Book. Digital media law is now the dynamic legal territory. Mass Media Law: The...

[Read PDF »](#)



Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel's System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers (Paperback)

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.This historic book may have numerous typos and missing text. Purchasers can download...

[Read PDF »](#)

**Patent Ease: How to Write You Own Patent Application (Paperback)**

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. Patent Ease! The new How to write your own Patent book for beginners!

[Read Book »](#)**Who am I in the Lives of Children? An Introduction to Early Childhood Education (Paperback)**

Pearson Education (US), United States, 2015. Paperback. Book Condition: New. 10th Revised edition. 254 x 201 mm. Language: English . Brand New Book. Note: This is the bound book only and does not include access

[Read Book »](#)**My Life as a Third Grade Zombie: Plus Free Online Access (Hardback)**

Gallopade International, United States, 2013. Hardback. Book Condition: New. 224 x 142 mm. Language: English . Brand New Book. When you purchase the Library Bound mystery you will receive FREE online eBook access! Carole Marsh

[Read Book »](#)**Peppa Pig: Camping Trip - Read it Yourself with Ladybird: Level 2**

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Peppa Pig: Camping Trip - Read it Yourself with Ladybird: Level 2, Peppa Pig and her family are going on holiday in their camper van. Find

[Read Book »](#)**Environments for Outdoor Play: A Practical Guide to Making Space for Children (New edition)**

SAGE Publications Ltd. Paperback. Book Condition: new. BRAND NEW, Environments for Outdoor Play: A Practical Guide to Making Space for Children (New edition), Theresa Casey, 'Theresa's book is full of lots of inspiring, practical, 'how

[Read Book »](#)