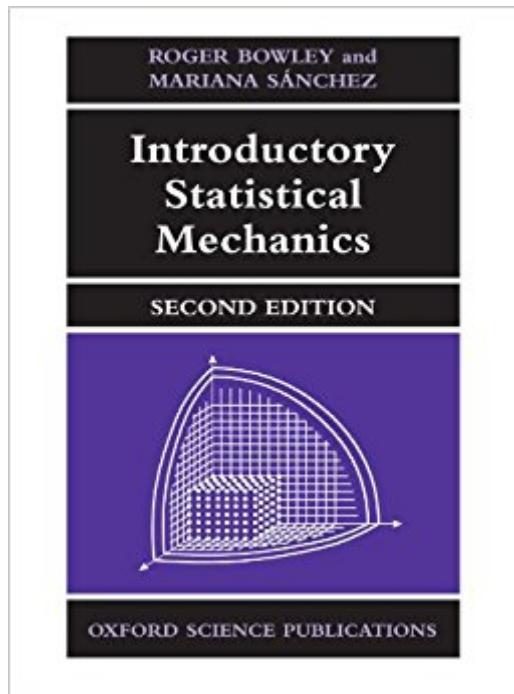


The book was found

# Introductory Statistical Mechanics



## Synopsis

This book explains the ideas and techniques of statistical mechanics--the theory of condensed matter--in a simple and progressive way. The text begins with the laws of thermodynamics and the basic ideas of quantum mechanics. The conceptual ideas are then developed carefully, and the mathematical techniques are developed in parallel to give a coherent overall view. The text is illustrated with examples not just from solid state physics, but also from recent theories of radiation from black holes and recent data on the background radiation from the Cosmic Background Explorer. This second edition includes additional advanced material often found in undergraduate courses. It includes three new chapters on phase transitions at an appropriate level for an undergraduate student, and there are numerous exercises at the end of each chapter, along with brief model answers for the odd-numbered problems. It is a useful and practical textbook for undergraduates in physics and chemistry.

## Book Information

Paperback: 368 pages

Publisher: Oxford University Press; 2 edition (January 20, 2000)

Language: English

ISBN-10: 0198505760

ISBN-13: 978-0198505761

Product Dimensions: 9.3 x 0.9 x 6.6 inches

Shipping Weight: 1.5 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 starsÂ  See all reviewsÂ  (3 customer reviews)

Best Sellers Rank: #970,157 in Books (See Top 100 in Books) #20 inÂ  Books > Science & Math > Physics > Entropy #312 inÂ  Books > Science & Math > Physics > Solid-State Physics #410 inÂ  Books > Science & Math > Physics > Dynamics > Thermodynamics

## Customer Reviews

I recommend this book to anyone who is taking an undergraduate course in stat mech. I also recommend it to beginning GRADUATE students of stat mech. I used it for my own graduate coursework and I found it to be extremely helpful. This book provides a clean, uncluttered presentation of the principles of stat mech; does not lose sight of the physical reasons behind the mathematical manipulations; and most helpful of all, contains a good set of problems WITH SOLUTIONS! It has been more helpful to me in my graduate work than any graduate-level book! In a next edition, maybe the authors can include a gentle introduction to the new renormalization group

theory of phase transitions, and also increase the number and depth of problems. If you plan on studying stat mech, get this book.

I found this book to be a great introduction to statistical mechanics. The thermodynamic chapters (which are mostly at the very beginning and very end of the book) left a lot to be desired. The authors did, however, relate stat mech ideas back to thermo topics, which helped motivate the subject. Finally, I would not recommend this book to be used as a self-study book. I read the chapters before the lectures and found that I repeatedly needed the lecture information (i.e. info not in the book) in order to do the homework problems.

You cannot beat this book for help reviewing for prelims or comps. The problems are typical of what you would find on a stat mech prelim, and the answers are in the back of the book. Combine this with Schoeder's An Introduction to Thermal Physics for a total Thermo + Stat Mech course. The book is also very helpful during grad-level Stat Mech courses. It makes a great companion to Pathria's Statistical Mechanics, Second Edition.

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

Introductory Statistical Mechanics Introductory Statistical Mechanics (Oxford Science Publications)

Elementary Stochastic Calculus With Finance in View (Advanced Series on Statistical Science & Applied Probability, Vol 6) (Advanced Series on Statistical Science and Applied Probability)

Thermodynamics With Quantum Statistical Illustrations. Monographs in Statistical Physics and

Thermodynamics, Volume 2 Introductory R: A Beginner's Guide to Data Visualisation, Statistical Analysis and Programming in R Thermodynamics and Statistical Mechanics: An Integrated

Approach (Cambridge Series in Chemical Engineering) Statistical Mechanics: Entropy, Order

Parameters and Complexity (Oxford Master Series in Physics) Statistical Mechanics: Selecta of

Elliott H. Lieb Introduction to Nonextensive Statistical Mechanics: Approaching a Complex World

The Principles of Statistical Mechanics (Dover Books on Physics) Nonequilibrium Statistical

Mechanics Maternity Nursing: An Introductory Text, 11e (MATERNITY NURSINGAN

INTRODUCTORY TEXT (BURROUGHS) 11th (Eleventh) Edition Robotics: The Beginner's Guide to Robotic Building, Technology, Mechanics, and Processes (Robotics, Mechanics, Technology,

Robotic Building, Science) Soil Mechanics in Highway Engineering (Series on Rock and Soil

Mechanics) Reinforced Concrete: Mechanics and Design (4th Edition) (Civil Engineering and

Engineering Mechanics) Mechanics II: Mechanics of Materials + Computational Fluid Mechanics and Heat Transfer, Third Edition (Series in Computational and Physical Processes in Mechanics

and Thermal Sciences) Statistical Analysis of fMRI Data (MIT Press) Statistical Digital Signal Processing and Modeling Ending Spam: Bayesian Content Filtering and the Art of Statistical Language Classification

[Dmca](#)