



Equilibrium and Non-Equilibrium Statistical Mechanics (New & revised ed)

By Carolyne Van Vliet

World Scientific Publishing Co Pte Ltd. Paperback. Condition: new. BRAND NEW, Equilibrium and Non-Equilibrium Statistical Mechanics (New & revised ed), Carolyne Van Vliet, This book is destined to be the standard graduate text in this fascinating field that encompasses our current understanding of the ensemble approach to many-body physics, phase transitions and other thermal phenomena, as well as the quantum foundations of linear response, kinetic equations and stochastic processes. The historical methods of J Willard Gibbs and Ludwig Boltzmann, applied to the quantum description rather than phase space, are featured. The tools for computations in the micro-canonical, canonical and grand-canonical ensembles are carefully developed and then applied to a variety of classical and standard quantum situations. After the language of second quantization has been introduced, strongly interacting systems, such as quantum liquids, superfluids and superconductivity, are treated in detail. For the connoisseur, there is a section on diagrammatic methods and applications. In the second part dealing with non-equilibrium processes, the emphasis is on the quantum foundations of Markovian behavior and irreversibility via the Pauli-Van Hove master equation. Justifiable linear response expressions and the quantum-Boltzmann approach are discussed and applied to various condensed matter problems. From this basis, the Casimir-Onsager relations...



READ ONLINE
[2.33 MB]

Reviews

A very great ebook with perfect and lucid answers. It can be packed with wisdom and knowledge I found out this book from my dad and i encouraged this publication to learn.

-- **Elena McLaughlin**

The publication is great and fantastic. Sure, it is enjoy, nevertheless an interesting and amazing literature. You will not truly feel monotony at at any moment of your own time (that's what catalogues are for concerning when you request me).

-- **Fabian Bashirian DDS**