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| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Front matter -- Preface -- Contents -- Chapter 1. Basic principles of statistics -- Chapter 2. Gibbs distribution -- Chapter 3. Classical ideal gas -- Chapter 4. Quantum ideal gases -- Chapter 5. Condensed matter -- Chapter 6. Superconductivity -- Chapter 7. Fluctuations -- Chapter 8. Phase transitions and critical phenomena -- Chapter 9. Linear response -- Chapter 10. Kinetic equations -- Chapter 11. Basics of the modern theory of many-particle systems -- Appendix A. Motion in phase space, ergodicity and mixing -- Appendix B. Statistical mechanics and information theory -- Appendix C. Nonequilibrium statistical operators -- Bibliography -- Index |
| Sommario/riassunto | This book is essentially based on the lecture course on "Statistical Physics", which was taught by the author at the physical faculty of the Ural State University in Ekaterinburg since 1992. This course was intended for all physics students, not especially for those specializing in theoretical physics. In this sense the material presented here contains the necessary minimum of knowledge of statistical physics (also often called statistical mechanics), which is in author's opinion necessary for every person wishing to obtain a general education in the field of physics. This posed the rather difficult problem of the choice of material and compact enough presentation. At the same time it necessarily should contain all the basic principles of statistical physics, as well as its main applications to different physical problems, mainly |

from the field of the theory of condensed matter. Extended version of these lectures were published in Russian in 2003. For the present English edition, some of the material was rewritten and several new sections and paragraphs were added, bringing contents more up to date and adding more discussion on some more difficult cases.
