

Swendsen has made many important contributions to developing Monte Carlo algorithms, and it is not surprising that he emphasizes computational applications. A brief appendix on computer calculations and the programming language VPython can be found at the end of the book, and many of the problems at the end of chapters are computational. The author assumes students will have a reasonable proficiency in computational physics; those who are not already proficient will be challenged to learn the necessary techniques while simultaneously tackling the physics and mathematical concepts newly encountered in statistical physics. Surprisingly, random walks are not mentioned, even though they are important for gaining an intuitive understanding of random processes. Kinetic theory is also not discussed.

Although I do not envision that *An Introduction to Statistical Mechanics and Thermodynamics* will be used as a primary text for the more typical one-semester undergraduate course on thermodynamics and statistical physics, the book would be a helpful companion textbook. The mathematical notation is carefully introduced and useful; the selected mathematical techniques are clearly explained in a conversational style that both graduate and advanced undergraduate students will find easy to follow. The author's subject organization and conceptual viewpoint address some of the shortcomings of conventional developments of thermal physics and will be helpful to students and researchers seeking a deep appreciation of statistical physics.

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