Book Review: Statistical Mechanics-A Survival Guide

Statistical Mechanics—A Survival Guide. A. M. Glazer and J. S. Wark, Oxford University Press, Oxford, 2001.

This book is intended to be a text for an introductory course in statistical mechanics for undergraduate students. It differs from many other texts by using straightforward, intuitive, and sometimes hand-waving presentations of the basic concepts of the subject. It has chapters discussing: distinguishable and indistinguishable particles; paramagnets; monatomic and diatomic ideal gases; quantum statistics and its application to electrons in metals, photons, and phonons and Bose–Einstein Condensation; and elementary ensemble theory.

The presentation is extremely successful in its didactic approach. The book has a reasonable number of instructive problems and their solutions. All in all, I think the authors have attained their goals though some may quibble about the nonrigorous treatments. Students should learn from and enjoy the book.

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