Elements Of Statistical Mechanics

A concise textbook introducing key concepts, tools and applications of statistical mechanics.This textbook provides a concise introduction to the key concepts and tools of statistical mechanics. It also covers advanced topics such as non-relativistic quantum field theory and numerical methods. After introducing classical analytical techniques, such as cluster expansion and Landau theory, the authors present important numerical methods with applications to magnetic systems, Lennard-Jones fluids and biophysics. Quantum statistical mechanics is discussed in detail and applied to Bose-Einstein condensation and topics in astrophysics and cosmology. In order to describe emergent phenomena in interacting quantum systems, canonical non-relativistic quantum field theory is introduced and then reformulated in terms of Feynman integrals. Combining the authors' many years' experience of teaching courses in this area, this textbook is ideal for advanced undergraduate and graduate students in physics, chemistry and mathematics. EAN/ISBN : 9780511166570 Publisher(s): Cambridge University Press Format: ePub/PDF Author(s): Sachs, Ivo - Sen, Siddhartha - Sexton, James

DOWNLOAD HERE