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4.5. Density and energy fluctuations in the grand canonical ensemble: correspondence with other ensembles
Problems; Notes; Chapter 5. Formulation of Quantum Statistics; 5.1. Quantum-mechanical ensemble theory: the density matrix; 5.2. Statistics of the various ensembles; 5.3. Examples; 5.4. Systems composed of indistinguishable particles; 5.5. The density matrix and the partition function of a system of free particles; Problems; Notes; Chapter 6. The Theory of Simple Gases; 6.1. An ideal gas in a quantum-mechanical microcanonical ensemble
6.2. An ideal gas in other quantum-mechanical ensembles
6.3. Statistics of the occupation numbers; 6.4. Kinetic considerations; 6.5. Gaseous systems composed of molecules with internal motion; Problems; Notes; Chapter 7. Ideal Bose Systems; 7.1. Thermodynamic behavior of an ideal Bose gas; 7.2. Thermodynamics of the black-body radiation; 7.3. The field of sound waves; 7.4. Inertial density of the sound field; 7.5. Elementary excitations in liquid helium II; Problems; Notes; Chapter 8. Ideal Fermi Systems; 8.1. Thermodynamic behavior of an ideal Fermi gas
8.2. Magnetic behavior of an ideal Fermi gas

Sommario/riassunto

'This is an excellent book from which to learn the methods and results of statistical mechanics.' Nature 'A well written graduate-level text for scientists and engineers... Highly recommended for graduate-level libraries.' Choice
This highly successful text, which first appeared in the year 1972 and has continued to be popular ever since, has now been brought up-to-date by incorporating the remarkable developments in the field of 'phase transitions and critical phenomena' that took place over the intervening years. This has been done by adding three new chapters (comprising over 15
