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Sommario/riassunto	This book provides an introduction to applied statistical mechanics by considering physically realistic models. It provides a simple and accessible introduction to theories of thermal fluctuations and diffusion, and goes on to apply them in a variety of physical contexts. The first part of the book is devoted to processes in thermal equilibrium, and considers linear systems. Ideas central to the subject, such as the fluctuation dissipation theorem, Fokker-Planck equations and the Kramers-Kroenig relations are introduced during the course of the exposition. The scope is then expanded to includ