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Soggetti	Mathematical physics Thermodynamics Physics - Philosophy Theoretical, Mathematical and Computational Physics Philosophical Foundations of Physics and Astronomy
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Nota di contenuto	What We Need from Thermodynamics -- What Are Probabilities? -- Dynamical Systems -- Statistical Mechanics 1 : The Nature of Equilibrium -- Statistical Mechanics 2: Irreversibility -- Demystifying Entropy -- Comparison with Quantum Mechanics.
Sommario/riassunto	Many people, including physicists, are confused about what the Second Law of thermodynamics really means, about how it relates to the arrow of time, and about whether it can be derived from classical mechanics. They also wonder what entropy really is: Is it all about information? But, if so, then, what is its relation to fluxes of heat? One might ask similar questions about probabilities: Do they express subjective judgments by us, humans, or do they reflect facts about the world, i.e. frequencies. And what notion of probability is used in the natural sciences, in particular statistical mechanics? This book addresses all of these questions in the clear and pedagogical style for which the author is known. Although valuable as accompaniment to an undergraduate course on statistical mechanics or thermodynamics, it is not a standard course book. Instead it addresses both the essentials and the many subtle questions that are usually brushed under the carpet in such

courses. As one of the most lucid accounts of the above questions, it provides enlightening reading for all those seeking answers, including students, lecturers, researchers and philosophers of science.
