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Titolo	Solved Problems in Thermodynamics and Statistical Physics / / by Gregor Skaej, Primož Ziherl
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ISBN	9783030276614 3030276619
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XI, 291 p. 102 illus.)
Disciplina	536.7076 536.7
Soggetti	Statistical physics Thermodynamics Amorphous substances Complex fluids Dynamics Statistical Physics and Dynamical Systems Soft and Granular Matter, Complex Fluids and Microfluidics Complex Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I: Thermodynamics -- Equation of state -- The first law -- The second law -- Thermodynamic potentials -- Phase transitions -- Mixtures -- Transport phenomena -- Part II: Statistical physics -- Classical canonical ensemble -- Equation of state -- Entropy -- Quantum canonical ensemble -- Grand canonical ensemble -- Kinetic theory of gases -- A: Steam tables -- B: Metropolis algorithm.
Sommario/riassunto	This book contains a modern selection of about 230 solved problems and examples arranged in a didactic way for hands-on experience with course work in a standard advanced undergraduate/first-year graduate class in thermodynamics and statistical physics. The principles of thermodynamics and equilibrium statistical physics are few and simple, but their application often proves more involved than it may seem at first sight. This book is a comprehensive complement to any textbook

in the field, emphasizing the analogies between the different systems, and paves the way for an in-depth study of solid state physics, soft matter physics, and field theory.

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