

1. Record Nr.	UNINA9910254629903321
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Titolo	A Course in Classical Physics 2—Fluids and Thermodynamics / / by Alessandro Bettini
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-30686-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XIV, 236 p. 111 illus., 1 illus. in color.)
Collana	Undergraduate Lecture Notes in Physics, , 2192-4791
Disciplina	530
Soggetti	Thermodynamics Fluids Mechanics Fluid- and Aerodynamics Classical Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Fluids -- The first law of thermodynamics -- Second principle of thermodynamics -- Thermodynamic properties of the real fluids -- Microscopic interpretation of thermodynamics -- Transport phenomena.
Sommario/riassunto	This second volume covers the mechanics of fluids, the principles of thermodynamics and their applications (without reference to the microscopic structure of systems), and the microscopic interpretation of thermodynamics. It is part of a four-volume textbook, which covers electromagnetism, mechanics, fluids and thermodynamics, and waves and light, is designed to reflect the typical syllabus during the first two years of a calculus-based university physics program. Throughout all four volumes, particular attention is paid to in-depth clarification of conceptual aspects, and to this end the historical roots of the principal concepts are traced. Emphasis is also consistently placed on the experimental basis of the concepts, highlighting the experimental nature of physics. Whenever feasible at the elementary level, concepts relevant to more advanced courses in quantum mechanics and atomic, solid state, nuclear, and particle physics are included. Each chapter

begins with an introduction that briefly describes the subjects to be discussed and ends with a summary of the main results. A number of “Questions” are included to help readers check their level of understanding. The textbook offers an ideal resource for physics students, lecturers and, last but not least, all those seeking a deeper understanding of the experimental basics of physics. .
