1.	Record Nr.	UNINA9910254175703321
	Autore	Pozrikidis C
	Titolo	Fluid Dynamics : Theory, Computation, and Numerical Simulation / / by C. Pozrikidis
	Pubbl/distr/stampa	New York, NY : , : Springer US : , : Imprint : Springer, , 2017
	ISBN	1-4899-7991-3
	Edizione	[3rd ed. 2017.]
	Descrizione fisica	1 online resource (XIX, 901 p. 233 illus., 148 illus. in color.)
	Disciplina	532.05
	Soggetti	Fluid mechanics
		Applied mathematics
		Engineering mathematics
		Computer programming
		Mathematical physics
		Fluids
		Engineering Fluid Dynamics
		Mathematical and Computational Engineering
		Programming Techniques
		Theoretical, Mathematical and Computational Physics
		Fluid- and Aerodynamics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Introduction to Kinematics -- More on Kinematics -- Flow Computation based on Kinematics -- Forces and Stresses -- Hydrostatics -- Equation of Motion and Vorticity Transport -- Channel, Tube, and Film Flow -- Finite-Difference Methods -- Low-Reynolds-Number Flow -- High-Reynolds-Number Flow -- Vortex Motion -- Aerodynamics.
	Sommario/riassunto	This book provides an accessible introduction to the basic theory of fluid mechanics and computational fluid dynamics (CFD) from a modern perspective that unifies theory and numerical computation. Methods of scientific computing are introduced alongside with theoretical analysis and MATLAB® codes are presented and discussed for a broad range of topics: from interfacial shapes in hydrostatics, to vortex dynamics, to viscous flow, to turbulent flow, to panel methods for flow past airfoils.

The third edition includes new topics, additional examples, solved and unsolved problems, and revised images. It adds more computational algorithms and MATLAB programs. It also incorporates discussion of the latest version of the fluid dynamics software library FDLIB, which is freely available online. FDLIB offers an extensive range of computer codes that demonstrate the implementation of elementary and advanced algorithms and provide an invaluable resource for research, teaching, classroom instruction, and self-study. This book is a must for students in all fields of engineering, computational physics, scientific computing, and applied mathematics. It can be used in both undergraduate and graduate courses in fluid mechanics, aerodynamics, and computational fluid dynamics. The audience includes not only advanced undergraduate and entry-level graduate students, but also a broad class of scientists and engineers with a general interest in scientific computing.

2.	Record Nr.	UNINA9910896098103321
	Titolo	Ossa
	Pubbl/distr/stampa	Solna, Sweden, : Osteological Research Laboratory, University of Stockholm
	Descrizione fisica	1 online resource
	Soggetti	Bones Skeleton Bone and Bones Periodicals. Periodical
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Periodico
	Nota di bibliografia	Includes bibliographical references.