1. Record Nr. UNISA996466495503316

Autore	Berger Mitchell A
Titolo	Lectures on Topological Fluid Mechanics [[electronic resource]] : Lectures given at the C.I.M.E. Summer School held in Cetraro, Italy, July 2 - 10, 2001 / / by Mitchell A. Berger, Louis H. Kauffman, Boris Khesin, H. Keith Moffatt, Renzo L. Ricca, De Witt Sumners ; edited by Renzo L. Ricca
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009
ISBN	1-280-38431-X 9786613562234 3-642-00837-2
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (XII, 223 p.)
Collana	C.I.M.E. Foundation Subseries ; ; 1973
Classificazione	SI 850
Disciplina	532
Soggetti	Continuum physics Topology Dynamics Ergodic theory Functions of complex variables Classical and Continuum Physics Dynamical Systems and Ergodic Theory Several Complex Variables and Analytic Spaces Kongress. Cetraro <2001>
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Fondazione CIME."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Braids and Knots -- Topological Quantities: Calculating Winding, Writhing, Linking, and Higher Order Invariants -- Tangles, Rational Knots and DNA -- The Group and Hamiltonian Descriptions of Hydrodynamical Systems -- Singularities in Fluid Dynamics and their Resolution -- Structural Complexity and Dynamical Systems -- Random Knotting: Theorems, Simulations and Applications.
Sommario/riassunto	Helmholtz's seminal paper on vortex motion (1858) marks the

beginning of what is now called topological fluid mechanics.After 150 years of work, the field has grown considerably. In the last several decades unexpected developments have given topological fluid mechanics new impetus, benefiting from the impressive progress in knot theory and geometric topology on the one hand, and in mathematical and computational fluid dynamics on the other. This volume contains a wide-ranging collection of up-to-date, valuable research papers written by some of the most eminent experts in the field. Topics range from fundamental aspects of mathematical fluid mechanics, including topological vortex dynamics and magnetohydrodynamics, integrability issues, Hamiltonian structures and singularity formation, to DNA tangles and knotted DNAs in sedimentation. A substantial introductory chapter on knots and links, covering elements of modern braid theory and knot polynomials, as well as more advanced topics in knot classification, provides an invaluable addition to this material.

2. Record Nr. UNINA9910806857403321

Titolo	Heavy water reactor moderator effectiveness as a backup heat sink during accidents / / International Atomic Energy Agency
Pubbl/distr/stampa	Vienna : , : International Atomic Energy Agency, , [2019] ©2019
ISBN	92-0-163019-0
Descrizione fisica	1 online resource (98 pages)
Collana	IAEA-TECDOC ; ; 1890
Disciplina	621.4808
Soggetti	Heavy water reactors Nuclear reactors - Computer programs Nuclear reactors - Safety measures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia