1. Record Nr. UNINA9910799480003321

Autore	Papadimitriou Fivos
Titolo	Geo-Topology : Theory, Models and Applications / / by Fivos Papadimitriou
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-48185-2
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (192 pages)
Collana	GeoJournal Library, , 2215-0072 ; ; 133
Disciplina	910.0151
Soggetti	Human geography Geography Geographic information systems Sociology, Urban Human ecology Human Geography Geographical Information System Urban Sociology Environmental Anthropology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I- Introduction -- Chapter 1.The Topological Turn in Geography -- Part II. Geo-Topology in Geographical Analysis -- Chapter 2. Geoinformatics and Topological Data Analysis -- Chapter 3. Geo-Topology of Landscape Boundaries -- Chapter 4. Geo-Topology of Networks of Borders -- Chapter. 5.Geo-Topology, Complexity and Resilience -- Part III. Topology in Geo-Visualization -- Chapter 6. Geo-Topological Visualization of Landscapes and Landforms -- Chapter 7. Geo-Topological Visualization of Land Use Dynamics -- Chapter 8. Geo-Topological Visualization with Knots and Braids. Part IV. Topological Models for Cyber-Geography -- Chapter 9. Topologies of Ubiquity and Placelessness -- Chapter 10. Ultrametri-City -- Part V. Psychological, Educational, Epistemological and Philosophical Perspectives on Geo-Topology -- Chapter 11. Geo-Topology and Visual Impact -- Chapter 12. Geo-Topology in Games and Education -- Chapter 13. Geo-Topology and Epistemology -- Chapter 14. Personal

Geo-Topologies.

Sommario/riassunto

Geo-Topology is an exploration of the depth and breadth of the relationships between Geography and Topology, with applications ranging from Landscape Geography to Social Geography and from Spatial Analysis to Geospatial Technologies. It shows how topics of geographical research (landscapes, borders, spatial social relationships etc) can be examined by using mathematical concepts and methods of Topology, exposing the realm of geo-topological modelling and visualization through Point-Set Topology, Knot Theory, Reeb graphs, Topological Surfaces (i.e. Möbius bands and Klein bottles), Differential Topology, Network Analysis, Combinatorial Topology, Braid Theory and Ultrametric Topology. Besides geographers, this book is a trove of new ideas for landscape ecologists, mathematicians, data scientists, sociologists, psychologists, anthropologists and educators. Geo-Topology is a systematic introduction to topological thinking in Geography, also by highlighting the significance of Topology for Geographical Education, as well as for the Philosophy and Epistemology of Geography.