1. Record Nr. UNINA9910437865703321

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Titolo	A Course in Topological Combinatorics / / by Mark de Longueville
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2013
ISBN	1-4419-7910-7
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (244 p.)
Collana	Universitext, , 0172-5939
Disciplina	514.2
Soggetti	Combinatorial analysis Convex geometry Discrete geometry Graph theory Game theory Algorithms Combinatorics Convex and Discrete Geometry Graph Theory Game Theory, Economics, Social and Behav. Sciences Mathematics of Algorithmic Complexity
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- List of Symbols and Typical Notation -- 1 Fair-Division Problems -- 2 Graph-Coloring Problems -- 3 Evasiveness of Graph Properties -- 4 Embedding and Mapping Problems -- A Basic Concepts from Graph Theory -- B Crash Course in Topology -- C Partially Ordered Sets, Order Complexes, and Their Topology -- D Groups and Group Actions -- E Some Results and Applications from Smith Theory -- References -- Index.
Sommario/riassunto	A Course in Topological Combinatorics is the first undergraduate textbook on the field of topological combinatorics, a subject that has become an active and innovative research area in mathematics over the last thirty years with growing applications in math, computer science, and other applied areas. Topological combinatorics is concerned with solutions to combinatorial problems by applying topological tools. In

most cases these solutions are very elegant and the connection between combinatorics and topology often arises as an unexpected surprise. The textbook covers topics such as fair division, graph coloring problems, evasiveness of graph properties, and embedding problems from discrete geometry. The text contains a large number of figures that support the understanding of concepts and proofs. In many cases several alternative proofs for the same result are given, and each chapter ends with a series of exercises. The extensive appendix makes the book completely self-contained. The textbook is well suited for advanced undergraduate or beginning graduate mathematics students. Previous knowledge in topology or graph theory is helpful but not necessary. The text may be used as a basis for a one- or two-semester course as well as a supplementary text for a topology or combinatorics class.