

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910437874903321 |
| Autore | Pisanski Tomaz |
| Titolo | Configurations from a Graphical Viewpoint // by Tomaz Pisanski, Brigitte Servatius |
| Pubbl/distr/stampa | Boston, MA : , : Birkhäuser Boston : , : Imprint : Birkhäuser, , 2013 |
| ISBN | 0-8176-8364-X |
| Edizione | [1st ed. 2013.] |
| Descrizione fisica | 1 online resource (288 p.) |
| Collana | Birkhäuser Advanced Texts Basler Lehrbücher, , 2296-4894 |
| Disciplina | 511.5 |
| Soggetti | Graph theory Geometry Discrete mathematics Topology Geometry, Algebraic Graph Theory Discrete Mathematics Algebraic Geometry |
| 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 (p. 265-269) and index. |
| Nota di contenuto | Preface -- Introduction -- Graphs -- Groups, Actions, and Symmetry -- Maps -- Combinatorial Configurations -- Geometric Configurations -- Index -- Bibliography. |
| Sommario/riassunto | Configurations can be studied from a graph-theoretical viewpoint via the so-called Levi graphs and lie at the heart of graphs, groups, surfaces, and geometries, all of which are very active areas of mathematical exploration. In this self-contained textbook, algebraic graph theory is used to introduce groups; topological graph theory is used to explore surfaces; and geometric graph theory is implemented to analyze incidence geometries. After a preview of configurations in Chapter 1, a concise introduction to graph theory is presented in Chapter 2, followed by a geometric introduction to groups in Chapter 3. Maps and surfaces are combinatorially treated in Chapter 4. Chapter 5 introduces the concept of incidence structure through vertex colored graphs, and the combinatorial aspects of classical configurations are studied. Geometric aspects, some historical remarks, references, and |

applications of classical configurations appear in the last chapter. With over two hundred illustrations, challenging exercises at the end of each chapter, a comprehensive bibliography, and a set of open problems, *Configurations from a Graphical Viewpoint* is well suited for a graduate graph theory course, an advanced undergraduate seminar, or a self-contained reference for mathematicians and researchers.
