Record Nr. UNINA9910392719803321 Autore Baa Martin Titolo Magic and Antimagic Graphs: Attributes, Observations and Challenges in Graph Labelings / / by Martin Baa, Mirka Miller, Joe Ryan, Andrea Semaniová-Feovíková Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-24582-9 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XV, 322 p. 165 illus.) Collana Developments in Mathematics, , 1389-2177;; 60 Disciplina 511.5 Soggetti Graph theory Combinatorics Computer science—Mathematics **Graph Theory** Discrete Mathematics in Computer Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Preface -- 1 Introduction -- 2 Magic and supermagic graphs -- 3 Nota di contenuto Vertex-magic total labelings -- 4 Edge-magic total labelings -- 5 Vertex-antimagic total labelings -- 6 Edge-antimagic total labelings --7 Graceful and antimagic labelings -- 8 Conclusion -- Glossary of abbreviations used in the text -- Bibliography -- Index. Magic and antimagic labelings are among the oldest labeling schemes Sommario/riassunto in graph theory. This book takes readers on a journey through these labelings, from early beginnings with magic squares up to the latest results and beyond. Starting from the very basics, the book offers a detailed account of all magic and antimagic type labelings of undirected graphs. Long-standing problems are surveyed and presented along with recent results in classical labelings. In addition, the book covers an assortment of variations on the labeling theme, all in one self-contained monograph. Assuming only basic familiarity with graphs, this book, complete with carefully written proofs of most results, is an ideal introduction to graph labeling for students learning

the subject. More than 150 open problems and conjectures make it an

invaluable guide for postgraduate and early career researchers, as well as an excellent reference for established graph theorists.