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Autore	Stiebitz Michael <1954->
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Nota di contenuto	1 Degree Bounds for the Chromatic Number -- 2 Degeneracy and Colorings -- 3 Colorings and Orientations of Graphs -- 4 Properties of Critical Graphs -- 5 Critical Graphs with few Edges -- 6 Bounding by and -- 7 Coloring of Hypergraphs -- 8 Homomorphisms and Colorings -- 9 Coloring Graphs on Surface -- Appendix A: Brooks' Fundamental Paper -- Appendix B: Tutte's Lecture from 1992 -- Appendix C: Basic Graph Theory Concepts.
Sommario/riassunto	Brooks' Theorem (1941) is one of the most famous and fundamental theorems in graph theory – it is mentioned/treated in all general monographs on graph theory. It has sparked research in several directions. This book presents a comprehensive overview of this development and see it in context. It describes results, both early and recent, and explains relations: the various proofs, the many extensions and similar results for other graph parameters. It serves as a valuable reference to a wealth of information, now scattered in journals, proceedings and dissertations. The reader gets easy access to this wealth of information in comprehensive form, including best known proofs of the results described. Each chapter ends in a note section with historical remarks, comments and further results. The book is also

suitable for graduate courses in graph theory and includes exercises. The book is intended for readers wanting to dig deeper into graph coloring theory than what is possible in the existing book literature. There is a comprehensive list of references to original sources.