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Titolo	Quantitative graph theory : mathematical foundations and applications // edited by Matthias Dehmer, Institute for Theoretical Computer Science, Mathematics and Operations Research, Department of Computer Science, Universitat der Bundeswehr Munc
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Edizione	[1st ed.]
Descrizione fisica	1 online resource (516 p.)
Collana	Discrete mathematics and its applications
Classificazione	COM046000MAT036000SCI008000
Disciplina	511.5
Soggetti	Graph theory - Data processing Combinatorial analysis
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	Front Cover; Dedication; Contents; Preface; Editors; Contributors; Chapter 1 What Is Quantitative Graph Theory?; Chapter 2 Localization of Graph Topological Indices via Majorization Technique; Chapter 3 Wiener Index of Hexagonal Chains with Segments of Equal Length; Chapter 4 Metric-Extremal Graphs; Chapter 5 Quantitative Methods for Nowhere-Zero Flows and Edge Colorings; Chapter 6 Width-Measures for Directed Graphs and Algorithmic Applications; Chapter 7 Betweenness Centrality in Graphs; Chapter 8 On a Variant Szeged and PI* Indices of Thorn Graphs; Chapter 9 Wiener Index of Line Graphs Chapter 10 Single-Graph Support MeasuresChapter 11 Network Sampling Algorithms and Applications; Chapter 12 Discrimination of Image Textures Using Graph Indices; Chapter 13 Network Analysis Applied to the Political Networks of Mexico; Chapter 14 Social Network Centrality, MovementIdentification, and the Participation ofIndividuals in a Social Movement: The Case of the Canadian Environmental Movement; Chapter 15 Graph Kernels in Chemoinformatics; Chapter 16 Chemical Compound Complexity in Biological Pathways; Back Cover
Sommario/riassunto	This book presents methods for analyzing graphs and networks

quantitatively. Incorporating interdisciplinary knowledge from graph theory, information theory, measurement theory, and statistical techniques, it covers a wide range of quantitative graph-theoretical concepts and methods, including those pertaining to random graphs. Through its broad coverage, the book fills a gap in the contemporary literature of discrete and applied mathematics, computer science, systems biology, and related disciplines--
