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| Descrizione fisica | 1 online resource (526 p.) |
| Disciplina | 003/.72 |
| Soggetti | Network analysis (Planning) |
| Lingua di pubblicazione | Inglese |
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| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references (p. 493-501) and index. |
| Nota di contenuto | Origins -- Graphs -- Regular networks -- Random networks -- Small-world networks -- Scale-free networks -- Emergence -- Epidemics -- Synchrony -- Influence networks -- Vulnerability -- NetGain -- Biology. |
| Sommario/riassunto | A comprehensive look at the emerging science of networks Network science helps you design faster, more resilient communication networks; revise infrastructure systems such as electrical power grids, telecommunications networks, and airline routes; model market dynamics; understand synchronization in biological systems; and analyze social interactions among people. This is the first book to take a comprehensive look at this emerging science. It examines the various kinds of networks (regular, random, small-world, influence, scale-free, and social) and applies network processes and behaviors to emergence, epidemics, synchrony, and risk. The book's uniqueness lies in its integration of concepts across computer science, biology, physics, social network analysis, economics, and marketing. The book is divided into easy-to-understand topical chapters and the presentation is augmented with clear illustrations, problems and answers, examples, applications, tutorials, and a discussion of related Java software. |

Chapters cover: . Origins. Graphs . Regular Networks . Random Networks . Small-World Networks . Scale-Free Networks . Emergence . Epidemics . Synchrony . Influence Networks . Vulnerability . Net Gain . Biology This book offers a new understanding and interpretation of the field of network science. It is an indispensable resource for researchers, professionals, and technicians in engineering, computing, and biology. It also serves as a valuable textbook for advanced undergraduate and graduate courses in related fields of study.