Record Nr. UNINA9910784066203321 Large scale structure and dynamics of complex networks [[electronic **Titolo** resource]]: from information technology to finance and natural science // editors Guido Caldarelli, Alessandro Vespignani Singapore;; Hackensack, NJ,: World Scientific, c2007 Pubbl/distr/stampa **ISBN** 1-281-12181-9 9786611121815 981-277-168-9 Descrizione fisica 1 online resource (264 p.) Complex systems and interdisciplinary science;; 2 Collana Altri autori (Persone) CaldarelliGuido VespignaniAlessandro <1965-> Disciplina 004.6 Soggetti System analysis Mathematical 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 (p. 235-248) and index. Nota di contenuto Preface; Contents; Introduction; 1 Preliminaries and Basic Definitions in Network Theory: 2 Models of Complex Networks: 3 Correlations in Complex Networks: 4 The Architecture of Complex Weighted Networks: Measurements and Models; 5 Community Structure Identification; 6 Visualizing Large Complex Networks: 7 Modeling the Webgraph: How Far We Are; 8 The Large Scale Structure of the Internet; 9 Spanning Trees in Ecology; 10 Social and Financial Networks; References; Index This book is the culmination of three years of research effort on a Sommario/riassunto multidisciplinary project in which physicists, mathematicians, computer scientists and social scientists worked together to arrive at a unifying picture of complex networks. The contributed chapters form a reference for the various problems in data analysis visualization and modeling of complex networks.