1. **Record Nr.**   UNINA9910299688803321

   Titolo   Propagation Phenomena in Real World Networks / / edited by Dariusz Król, Damien Fay, Bogdan Gabry

   Pubbl/distr/stampa   Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015

   ISBN   3-319-15916-X

   Edizione   [1st ed. 2015.]

   Descrizione fisica   1 online resource (375 p.)

   Collana   Intelligent Systems Reference Library, , 1868-4394 ; ; 85

   Disciplina   004.6

   Soggetti   Computational intelligence
                                     Artificial intelligence
                                      Computational Intelligence
                                      Artificial Intelligence

   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 at the end of each chapters and index.

   Nota di contenuto   Epidemic Models: their Spread, Analysis and Invasions in Scale-Free Networks -- Information Propagation in a Social Network: The Case of a Fish Schooling Algorithm -- Models for Trust Inference in Social Networks.-Assessing the role of network effects in propagation phenomena in real world networks -- Resource Constrained Randomized Coverage Strategies for Unstructured Networks -- Petri Net-Based Modelling and Simulation of Transport Network Segments -- Bio-inspired Routing Strategies for Wireless Sensor Networks -- Analysis of Peer-to-Peer Botnet Attacks and Defenses -- Generating Robust and Efficient Networks Under Targeted Attacks -- Cancer - a Story on Fault Propagation in Gene-Cellular Networks -- Propagation Models and Analysis for Mobile Phone Data Analytics -- Information Propagation in Social Networks during Crises: A structural Framework -- Simulations of Financial Contagion in Interbank Networks: Some Methodological Issues -- Maximizing Social Influence in Real-World Networks - the State of the Art and Current Challenges.

   Sommario/riassunto   "Propagation, which looks at spreading in complex networks, can be seen from many viewpoints; it is undesirable, or desirable, controllable, the mechanisms generating that propagation can be the topic of

interest, but in the end all depends on the setting. This book covers leading research on a wide spectrum of propagation phenomenon and the techniques currently used in its modelling, prediction, analysis and control. Fourteen papers range over topics including epidemic models, models for trust inference, coverage strategies for networks, vehicle flow propagation, bio-inspired routing algorithms, P2P botnet attacks and defences, fault propagation in gene-cellular networks, malware propagation for mobile networks, information propagation in crisis situations, financial contagion in interbank networks, and finally how to maximize the spread of influence in social networks. The compendium will be of interest to researchers, those working in social networking, communications and finance and is aimed at providing a base point for further studies on current research. Above all, by bringing together research from such diverse fields, the book seeks to cross-pollinate ideas, and give the reader a glimpse of the breath of current research.".