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| Autore | Burguillo Juan C |
| Titolo | Self-organizing Coalitions for Managing Complexity : Agent-based Simulation of Evolutionary Game Theory Models using Dynamic Social Networks for Interdisciplinary Applications / / by Juan C. Burguillo |
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| Edizione | [1st ed. 2018.] |
| Descrizione fisica | 1 online resource (XVI, 343 p. 187 illus., 149 illus. in color.) |
| Collana | Emergence, Complexity and Computation, , 2194-7287 ; ; 29 |
| Disciplina | 003.7 |
| Soggetti | Computational complexity<br>Computational intelligence<br>Operations research<br>Decision making<br>Physics<br>Complexity<br>Computational Intelligence<br>Operations Research/Decision Theory<br>Applications of Graph Theory and Complex Networks |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references at the end of each chapters and index. |
| Nota di contenuto | Introduction.- Complex Systems -- Complex Networks.- Cellular Automata.- Multi-agent Systems -- Self-Organization.- Game Theory. - Optimization Models with Coalitional Cellular Automata -- Time Series Prediction using Coalitions and Self-Organizing Maps. |
| Sommario/riassunto | This book provides an interdisciplinary approach to complexity, combining ideas from areas like complex networks, cellular automata, multi-agent systems, self-organization and game theory. The first part of the book provides an extensive introduction to these areas, while the second explores a range of research scenarios. Lastly, the book presents CellNet, a software framework that offers a hands-on approach to the scenarios described throughout the book. In light of the introductory chapters, the research chapters, and the CellNet |

simulating framework, this book can be used to teach undergraduate and master's students in disciplines like artificial intelligence, computer science, applied mathematics, economics and engineering. Moreover, the book will be particularly interesting for Ph.D. and postdoctoral researchers seeking a general perspective on how to design and create their own models.