1. Record Nr. UNINA9910983394103321 Autore Wu Jiang Titolo Social Network Computing / / by Jiang Wu Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9740-84-3 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (XXV, 627 p. 355 illus., 77 illus. in color.) 300.00285 Disciplina Soggetti Social sciences - Data processing Application software Computer Application in Social and Behavioral Sciences Computer and Information Systems Applications Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1 Introduction to Social Network Computing -- Chapter 2 Nota di contenuto Visualization of Social Networks -- Chapter 3 Triadic Closure in Social Networks -- Chapter 4 Strong and Weak Relationships in Social Networks -- Chapter 5 Homophily in Social Networks -- Chapter 6 Positive and Negative Balance in Social Networks -- Chapter 7 The Small World in Social Networks -- Chapter 8 Power Laws in Social Networks -- Chapter 9 Communities in Social Networks -- Chapter 10 Communication in Social Networks -- Chapter 11 Games in Social Networks -- Chapter 12 Networks in Social Networks -- Chapter 13 Link Prediction for Social Networks -- Chapter 14 Evaluation of the Influence of Social Networks -- Chapter 15 Dynamic Analysis of Social Networks -- Chapter 16 Randomized Experiments in Social Networks -- Chapter 17 Modeling and Simulation of Social Networks -- Chapter 18 Representation Learning for Social Networks. Sommario/riassunto In the era of digital economy with highly-connected world, the ability to comprehend social network computing has become an indispensable skill. This book serves as a vital guide for academics and professionals engaged in research within this rapidly expanding field. The book is organized into three parts, each dedicated to different facets of social network computing. The journey commences with an exploration of

foundational principles, encompassing triadic closure, strong and weak

ties, network homophily, and positive and negative balance. This lays the groundwork for an in-depth examination of fundamental theories governing social networks. Subsequently, the focus shifts to the laws dictating social networks, elucidating phenomena like the small world effect, power law distribution, community detection, diffusion processes, game theory dynamics, and hypernetworks, also including multiplex networks, multi-mode networks and temporal networks. The final section of the book centers on the practical aspects of social network analysis, delving into topics such as link prediction, influence evaluation, dynamic analysis, random experiments, modeling and simulation, and representation learning. This provides a comprehensive exploration of the applicability of social network analysis in real-world scenarios. This book seamlessly integrates theory with practice by incorporating popular social network computing software, including igraph, Gephi, Ucinet, and Netlogo. By mastering the computational thinking methods presented in this book, readers will deepen their understanding of social network computing and acquire the skills to effectively apply it in various real-world contexts.