1. Record Nr. UNISA990003570200203316

Autore MIKALSON, Jon D.

Titolo Herodotus and religion in the Persian wars / Jon D. Mikalson

Pubbl/distr/stampa Chapel Hill; London: University of North Carolina, 2003

ISBN 0-8078-2798-3

Descrizione fisica XIV,269 p. : ill. ; 24 cm

Disciplina 292.08

Soggetti Grecia antica -- Storia [e] religione

Collocazione TG 77,26

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Record Nr. UNINA9910437823103321

Autore Niazi Muaz A

Titolo Cognitive agent-based computing-I : a unified framework for modeling

complex adaptive systems using agent-based & complex network-

based methods / / Muaz A. Niazi. Amir Hussain

Pubbl/distr/stampa New York, : Springer, 2013

ISBN 1-283-74213-6

94-007-3852-8

Edizione [1st ed. 2013.]

Descrizione fisica 1 online resource (65 p.)

Collana SpringerBriefs in cognitive computation, , 2212-6023

Altri autori (Persone) HussainA (Amir)

Disciplina 006.3

Soggetti Social systems - Mathematical models

Social sciences - Mathematical models

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 and index.

Nota di contenuto Cognitive Agent-basedComputing-I; Acknowledgments; Contents;

Acronyms; Abstract; 1 Introduction; 1.1...About the AgentAgent Concept; 1.2...A Framework for Complex Adaptive Systems; 1.3... Modeling CASCAS; 1.4...Motivation; 1.5...Aims and Objectives; 1.6... Overview of the Briefs; References; 2 A Unified Framework; 2.1... Overview of the Proposed Framework; 2.2...Proposed Framework Levels Formulated in Terms of CASCAS Study Objectives; 2.3...Proposed Framework Levels Formulated in Relation to Available Data Types; 2.4... Overview of the Rest of the Parts; 2.4.1 Overview of Case Studies; 2.4.2 Outline of the Briefs

References3 Complex Adaptive Systems; 3.1...Overview; 3.2...Complex Adaptive Systems (CASCAS); 3.2.1 The Seven Basics of CASCAS; 3.2.2 Emergence; 3.3... Examples of CASCAS; 3.3.1 Natural CASCAS Example 1: CAS in Plants; 3.3.2 Natural CASCAS Example 2: CAS in Social Systems; 3.3.3 Artificial CASCAS Example 1: Complex Adaptive Communication Networks: 3.3.4 Artificial CASCAS Example 2: Simulation of Flocking Boids; References; 4 Modeling CASCAS; 4.1... AgentAgent-based Modeling and Agent-based Computing; 4.1.1 AgentAgent-oriented ProgrammingAgentAgent-Oriented Programming 4.1.2 Multi-agentagent Oriented Programming4.1.3 AgentAgent-based or Massively Multiagent Modeling; 4.1.4 Benefits of AgentAgent-based Thinking: 4.2...A Review of an AgentAgent-based Tool: 4.2.1 NetLogo Simulation: An Overview: 4.2.1.1 Overview of NetLogo for Modeling Complex Interaction ProtocolsOverview of NetLogo for Modeling Complex Interaction Protocols; 4.2.1.2 Capabilities in Handling a Range of Input Values; 4.2.1.3 Range of Statistics and Complex Metrics; 4.3... Verification and Validation of SimulationSimulation Models; 4.3.1 Overview: 4.3.2 Verification and Validation of ABMs 4.3.3 Related Work on V&V of ABMABM4.4...Overview of Communication Network Simulators; 4.4.1 Simulation of WSNs; 4.4.2 Simulation of P2P Networks: 4.4.3 Simulation of Robotic Swarms: 4.4.4 ABMABM for Complex Communication Networks SimulationSimulation; 4.5...Complex Network Modeling; 4.5.1 Complex Network Methods; 4.5.2 Theoretical Basis; 4.5.3 Centralities and Other Quantitative Measures; 4.5.3.1 Clustering Coefficient; 4.5.3.2 Matching Index; 4.5.4 Centrality Measures; 4.5.4.1 Degree Centrality; 4.5.4.2 Eccentricity Centrality; 4.5.4.3 Closeness Centrality 4.5.4.4 Shortest Path Betweenness Centrality4.5.5 Software Tools for Complex NetworksComplex Networks; 4.6...Conclusions; References;

## Sommario/riassunto

Index

Complex Systems are made up of numerous interacting sub-components. Non-linear interactions of these components or agents give rise to emergent behavior observable at the global scale. Agent-based modeling and simulation is a proven paradigm which has previously been used for effective computational modeling of complex systems in various domains. Because of its popular use across different scientific domains, research in agent-based modeling has primarily been vertical in nature. The goal of this book is to provide a single hands-on guide to developing cognitive agent-based models for the exploration of emergence across various types of complex systems. We present practical ideas and examples for researchers and practitioners for the building of agent-based models using a horizontal approach -applications are demonstrated in a number of exciting domains as diverse as wireless sensors networks, peer-to-peer networks, complex social systems, research networks and epidemiological HIV.