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Descrizione fisica	1 online resource (151 pages)
Collana	Lecture Notes in Computer Science ; ; v.13441
Disciplina	016.403
Soggetti	Artificial intelligence Multiagent systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Best Papers -- TOPS: Transition-Based Volatility-Reduced Policy Search -- 1 Introduction -- 2 Background -- 3 Algorithm Formulation -- 3.1 Augmented MDP -- 3.2 Proposed Algorithms -- 4 Theoretical Analysis -- 4.1 Assumptions -- 4.2 Major Theoretical Results -- 5 Experiments -- 6 Related Work -- 7 Conclusion -- A Notation Systems -- B Algorithm Details -- C Experimental Details -- C.1 Testbeds -- C.2 Hyper-parameter Settings -- C.3 Computing Infrastructure -- D Theoretical Analysis Details -- D.1 Overview -- D.2 Additional Assumptions -- D.3 Proof of Theorem 1 -- D.4 Proof of Theorem 2 -- D.5 Proof of Lemma 1 -- D.6 Proof of Lemma 2 -- E Additional Related Work -- E.1 Global Optimality of Policy Search Methods -- E.2 Over-Parameterized Neural Networks in RL -- References -- School's Out? Simulating Schooling Strategies During COVID-19 -- 1 Introduction -- 2 Agent-Based Models in the Pandemic -- 3 The SoSAD Modeling Approach -- 3.1 Population and Infrastructure -- 3.2 Contacts and Contagion -- 3.3 Activities and Countermeasures -- 4 Simulating Three Schooling Strategies -- 5 Can We Keep Schools Open? Simulation Results -- 6 Discussion - Patterns in Different Experiment Setups -- 7 Conclusion - What Only ABMs Can Show -- References -- Data-Driven Agent-Based Model Development to Support Human-Centric Transit-Oriented Design -- 1 Introduction

-- 2 A Prototype ABM -- 3 Data Collection -- 4 Case Study -- 5 Discussions and Conclusion -- References -- Enabling Negotiating Agents to Explore Very Large Outcome Spaces -- 1 Introduction -- 2 Problem Setting -- 2.1 Negotiation Model -- 2.2 Typical Search Queries -- 2.3 Design Specification of Search Algorithms Used by Negotiating Agents -- 3 Related Work -- 4 Searching Through BIDS -- 4.1 Looking for Bid(s) that Satisfy a Utility Target Through BIDS. 4.2 Using BIDS to Implement the Sampling-Utility Query and the Trade-off Query -- 5 Experiments -- 5.1 Setup -- 5.2 Metrics to Quantify Scalability, Speed, Accuracy, and Diversity -- 5.3 Experiment 1 - Scalability and Rapidness of BIDS -- 5.4 Experiment 2 - Accuracy and Diversity -- 6 Conclusions and Future Work -- References -- Purposeful Failures as a Form of Culturally-Appropriate Intelligent Disobedience During Human-Robot Social Interaction -- 1 Introduction -- 2 Methods -- 3 Results -- 4 Discussion -- References -- Visionary Papers -- An Agent-Based Model of Horizontal Mergers -- 1 Introduction -- 2 The Analytical Model -- 2.1 Bertrand Competition with Differentiated Products -- 2.2 Cournot Competition with Differentiated Products -- 3 The Agent-Based Model -- 3.1 Model Implementation and Parameters -- 4 Results -- 4.1 Results from Cournot Competition with Differentiated Products -- 5 Concluding Remarks and Future Extensions -- References -- Multi-agent Traffic Signal Control via Distributed RL with Spatial and Temporal Feature Extraction -- 1 Introduction -- 2 Method -- 2.1 Problem Formulation -- 2.2 Spatial and Temporal Perception Network -- 2.3 Learning Framework -- 3 Experiments and Discussion -- 4 Conclusion and Future Work -- References -- About Digital Twins, Agents, and Multiagent Systems: A Cross-Fertilisation Journey -- 1 Introduction -- 2 Background -- 2.1 Digital Twins Outside of MAS -- 2.2 Digital Twins Within MAS -- 3 DTs for Agents and Multiagent Systems -- 3.1 Individual Perspective -- 3.2 System Perspective -- 4 Agents and Multiagent Systems for DTs -- 4.1 Individual Perspective -- 4.2 System Perspective -- 5 Research Directions -- 5.1 Cognitive DTs -- 5.2 Anticipatory Planning -- 5.3 Sociotechnical Systems -- 5.4 Mirror Worlds -- 5.5 Standardisation and Interoperability -- 6 Concluding Remarks and Outlook -- References. Only Those Who Can Obey Can Disobey: The Intentional Implications of Artificial Agent Disobedience -- 1 Introduction -- 2 Senses of "Disobedience" -- 3 Recent Approaches to Robot "Disobedience" -- 4 What Does True Disobedience Entail? Layers of Intentionality and Interaction -- 4.1 Understanding Instruction as Possible Action -- 4.2 Capability of Obedience -- 4.3 Reason, Purpose, or Commitment for Acting Against Instruction -- 5 Local vs. Global Disobedience -- 6 Transparency and Accountability for Ascriptions of Disobedience -- 6.1 Obeying an Instructor vs. an Instruction -- 7 What Kinds of Disobedience Should Be Sought? -- 8 Conclusion -- References -- Author Index.
