Record Nr. UNISA996465298703316 **Titolo** Safety and Security in Multiagent Systems [[electronic resource]]: Research Results from 2004-2006 / / edited by Mike Barley, Haris Mouratidis, Amy Unruh, Diana F. Gordon-Spears, Paul Scerri, Fabio MASSACCI Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2009 **ISBN** 3-642-04879-X Edizione [1st ed. 2009.] Descrizione fisica 1 online resource (VIII, 343 p.) Collana Lecture Notes in Artificial Intelligence, , 2945-9141;; 4324 Disciplina 006.3 Soggetti Artificial intelligence User interfaces (Computer systems) Human-computer interaction Data protection Cryptography Data encryption (Computer science) Electronic data processing—Management Computer networks Artificial Intelligence User Interfaces and Human Computer Interaction Data and Information Security Cryptology **IT Operations** Computer Communication Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Methodological Approaches to High-Assurance Systems -- Towards Safe Coordination in Multi-agent Systems -- Enhancing Secure Tropos

> to Effectively Deal with Security Requirements in the Development of Multiagent Systems -- Dependable Multi-agent Systems: Layered Reference Architecture and Representative Mechanisms -- Towards Using Simulation to Evaluate Safety Policy for Systems of Systems -- A

Guardian Agent Approach to Safety in Medical Multi-agent Systems --A Distributed Numerical Approach for Managing Uncertainty in Large-Scale Multi-agent Systems -- Prevention and Response to Harm/Failures -- The First Law of Robotics -- Safe Stochastic Planning: Planning to Avoid Fatal States -- Building Coordinated Real-Time Control Plans -- A Framework for Goal-Based Semantic Compensation in Agent Systems -- Safe Agents in Space: Preventing and Responding to Anomalies in the Autonomous Sciencecraft Experiment -- Stochastic Approaches to Predictability and Unpredictability -- Uncertain Agent Verification through Probabilistic Model-Checking -- Safety and Security Multi-agent Systems -- Coordinating Randomized Policies for Increasing Security in Multiagent Systems -- Safety and Security in Human-Computer Interactions -- Safety in the Context of Coordination via Adjustable Autonomy -- Command and Authorization Services for Multiple Humans Interacting with a Software Control Agent for Advanced Life Support -- Analyzing Dangers in Multiagent Rescue Using DEFACTO -- Using Multi-agent Systems to Specify Safe and Secure Services for Virtual Organisations -- MLBPR: MAS for Large-Scale Biometric Pattern Recognition -- Self-Protection -- Intentional Agents in Defense -- Security and Privacy Issues in Agent-Based Location-Aware Mobile Commerce -- Biologically-Inspired Concepts for Autonomic Self-protection in Multiagent Systems -- Erratum to: Fluid-Like Swarms with Predictable Macroscopic Behavior.

Sommario/riassunto

The Safety and Security in Multiagent Systems (SASEMAS) series of workshops that took place from 2004-2006 provided a forum for the exchange of ideas and discussion on areas related to the safety and security of multiagent systems. In particular, the workshops explored issues related to the development and deployment of safe and secure agents and multiagents systems with topics ranging from definitions of safety and security for single agents or entire systems to verification/validation of agent and multiagent systems to design, mechanisms and deployment to user requirements, agent behavior, and trust. This book contains 22 papers grouped into five main sections according to the following topics: methodological approaches to high-assurance systems, prevention and response to harm/failures, stochastic approaches to predictability and unpredictability, safety and security in human-computer interactions, and self-protection.