1.	Record Nr.	UNINA9910483845303321
	Titolo	Simulation, Modeling, and Programming for Autonomous Robots : First International Conference, SIMPAR 2008 Venice, Italy, November 3-7, 2008. Proceedings / / edited by Stefano Carpin, Itsuki Noda, Enrico Pagello, Monica Reggiani
	Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2008
	ISBN	3-540-89076-9
	Edizione	[1st ed. 2008.]
	Descrizione fisica	1 online resource (XI, 354 p.)
	Collana	Lecture Notes in Artificial Intelligence, , 2945-9141 ; ; 5325
	Disciplina	629.89263
	Soggetti	Artificial intelligence
		Computer networks
		Computer programming
		Computer simulation
		User interfaces (Computer systems)
		Human-computer interaction
		Computer science
		Artificial Intelligence
		Computer Communication Networks
		Programming Techniques
		Computer Modelling
		User Interfaces and Human Computer Interaction
		Theory of Computation
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Invited Talks -- Simulation, Modeling and Programming for Autonomous Robots: The Open Source Perspective -- Studies on Humanlike Robots – Humanoid, Android and Geminoid -- Modeling, Understanding, and Interacting with Humans -- Humanoids, Brain and Cognitive Sciences -- Simulation -- XPERSim: A Simulator for Robot Learning by Experimentation -- From Simulated to Real Scenarios: A Framework for Multi-UAVs -- Simulation of Multi-Robot Teams with

Flexible Level of Detail -- MM-ulator: Towards a Common Evaluation Platform for Mixed Mode Environments -- A Multi-agent 3D Simulation Environment for Clothing Industry -- A Lunar Surface Operations Simulator -- YARS: A Physical 3D Simulator for Evolving Controllers for Real Robots -- Programming -- A Software Platform for Component Based RT-System Development: OpenRTM-Aist -- A Software System for Robotic Learning by Experimentation -- A Mobile Robot Control Framework: From Simulation to Reality -- Implementing Flexible Parallelism for Modular Self-reconfigurable Robots -- Real-Time Software for Mobile Robot Simulation and Experimentation in Cooperative Environments -- Knowledge Processing Middleware -- Towards Automated Online Diagnosis of Robot Navigation Software -- A Common Framework for Co-operative Robotics: An Open, Fault Tolerant Architecture for Multi-league RoboCup Teams -- Multilevel Testing of Control Software for Teams of Autonomous Mobile Robots -- ppPDC Communication Framework – A New Tool for Distributed Robotics -- The Experimental Robotics Framework -- Applications -- Where Am I? A Simulated GPS Sensor for Outdoor Robotic Applications -- An Emphatic Humanoid Robot with Emotional Latent Semantic Behavior -- Developing Robot Motions by Simulated Touch Sensors -- 3D Simulation of a Motorized Operation Microscope -- Real-Time Least-SquareFitting of Ellipses Applied to the RobotCub Platform -- An Introduction to a New Commentator for RoboCup 3D Soccer Simulation -- Authority Sharing in a Swarm of UAVs: Simulation and Experiments with Operators -- Rescue Robot Navigation: Static Stability Estimation in Random Step Environment -- Performance Evaluation of Repeated Auctions for Robust Task Execution -- Conceptual Framework to Maintain Multiple and Floating Relationship among Coordinate Reference Systems for Robotics -- Conceptual Design of a Power Distribution Line Maintenance Robot Using a Developed CG Simulator and Experimental Robot System.

Sommario/riassunto	This book constitutes the refereed proceedings of the First International Conference on Simulation, Modeling, and Programming for Autonomous Robots, SIMPAR 2008, held in Venice, Italy, in November 2008. The 29 revised full papers and 21 revised poster papers presented were carefully reviewed and selected from 42 submissions. The papers address all current issues of robotics applications and simulation environments thereof, such as 3D robot simulation, reliability, scalability and validation of robot simulation, simulated sensors and actuators, offline simulation of robot design, online simulation with real-time constraints, simulation with software/hardware-in-the-loop, middleware for robotics, modeling framework for robots and environments, testing and validation of robot control software, standardization for robotic services, communication infrastructures in distributed robotics, interaction between sensor networks and robots, human robot interaction, and multi-robot. The papers are organized in topical sections on simulation, programming, and applications.