1.	Record Nr.	UNINA9910483431403321
	Titolo	From animals to animats 9 : 9th International Conference on Simulation of Adaptive Behavior, SAB 2006, Rome, Italy, September 25-29, 2006 : proceedings / / Stefano Nolfi ... [et al.] (eds.)
	Pubbl/distr/stampa	Berlin ; ; New York, : Springer, c2006
	ISBN	3-540-38615-7
	Edizione	[1st ed. 2006.]
	Descrizione fisica	1 online resource (XV, 869 p.)
	Collana	Lecture notes in computer science. Lecture notes in artificial intelligence, , 0302-9743 ; ; 4095 LNCS sublibrary. SL 7, Artificial intelligence
	Altri autori (Persone)	NolfiStefano
	Disciplina	004.0151
	Soggetti	Animal behavior - Simulation methods Animals - Adaptation - Simulation methods Robotics Artificial intelligence - Biological applications
	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	The Animat Approach to Adaptive Behaviour -- Emotions as a Bridge to the Environment: On the Role of Body in Organisms and Robots -- Some Adaptive Advantages of the Ability to Make Predictions -- Perception and Motor Control -- Early Perceptual and Cognitive Development in Robot Vision -- Visual Control of Flight Speed and Height in the Honeybee -- Visual Learning of Affordance Based Cues -- Modelling the Peripheral Auditory System of Lizards -- A Model of Sensorimotor Coordination in the Rat Whisker System -- Biological Actuators Are Not Just Springs -- Investigation of Reality Constraints: Morphology and Controller of Two-Link Legged Locomotors for Dynamically Stable Locomotion -- Synchronization and Gait Adaptation in Evolving Hexapod Robots -- Computer Simulation of a Climbing Insectomorphic Robot -- Adaptive Four Legged Locomotion Control Based on Nonlinear Dynamical Systems -- The Control of Turning in Real and Simulated Stick Insects -- Kinematic Modeling and Dynamic Analysis of the Long-Based Undulation Fin of Gymnarchus Niloticus -- An Environmental Adaptation Mechanism for a Biped Walking Robot Control Based on Elicitation of Sensorimotor Constraints -- Dynamic

Generation and Switching of Object Handling Behaviors by a Humanoid Robot Using a Recurrent Neural Network Model -- Action Selection and Behavioral Sequences -- Distributed Action Selection by a Brainstem Neural Substrate: An Embodied Evaluation -- A Schema Based Model of the Praying Mantis -- Perceptual-Motor Sequence Learning Via Human-Robot Interaction -- Navigation and Internal World Models -- POTBUG: A Mind's Eye Approach to Providing BUG-Like Guarantees for Adaptive Obstacle Navigation Using Dynamic Potential Fields -- Navigation in Large-Scale Environments Using an Augmented Model of Visual Homing -- Evolutionary Active Vision Toward Three Dimensional Landmark-Navigation -- Global Navigation Through Local Reference Frames -- Transition Cells for Navigation and Planning in an Unknown Environment -- Use Your Illusion: Sensorimotor Self-simulation Allows Complex Agents to Plan with Incomplete Self-knowledge -- Learning and Adaptation -- Stabilising Hebbian Learning with a Third Factor in a Food Retrieval Task -- Investigating STDP and LTP in a Spiking Neural Network -- Spike-Timing Dependent Plasticity Learning for Visual-Based Obstacles Avoidance -- An Adaptive Robot Motivational System -- Incremental Skill Acquisition for Self-motivated Learning Animats -- Piagetian Adaptation Meets Image Schemas: The Jean System -- A Model of Reaching that Integrates Reinforcement Learning and Population Encoding of Postures -- Combining Self-organizing Maps with Mixtures of Experts: Application to an Actor-Critic Model of Reinforcement Learning in the Basal Ganglia -- From Motor Babbling to Purposive Actions: Emerging Self-exploration in a Dynamical Systems Approach to Early Robot Development -- Modelling Multi-modal Learning in a Hawkmoth -- Adaptive Learning Application of the MDB Evolutionary Cognitive Architecture in Physical Agents -- Evolution -- Why Are Evolved Developing Organisms Also Fault-Tolerant? -- GasNets and CTRNNs – A Comparison in Terms of Evolvability -- Incremental Evolution of Robot Controllers for a Highly Integrated Task -- An Evolutionary Selection Model Based on a Biological Phenomenon: The Periodical Magicicadas -- Evolving Reaction-Diffusion Controllers for Minimally Cognitive Animats -- Emergence of Coherent Coordinated Behavior in a Network of Homogeneous Active Elements -- Searching for Emergent Representations in Evolved Dynamical Systems -- Modular Design of Irreducible Systems -- Spatially Constrained Networks and the Evolution of Modular Control Systems -- Evolving Spatiotemporal Coordination in a Modular Robotic System -- Spiking Neural Controllers for Pushing Objects Around -- Hierarchical Cooperative CoEvolution Facilitates the Redesign of Agent-Based Systems -- Bubbleworld.Evo: Artificial Evolution of Behavioral Decisions in a Simulated Predator-Prey Ecosystem -- Incremental Evolution of Target-Following Neuro-controllers for Flapping-Wing Animats -- Evolution and Adaptation of an Agent Driving a Scale Model of a Car with Obstacle Avoidance Capabilities -- Evolving Robot's Behavior by Using CNNs -- Collective and Social Behaviours -- Experimental Study on Task Teaching to Real Rats Through Interaction with a Robotic Rat -- Believability Testing and Bayesian Imitation in Interactive Computer Games -- Asynchronous Cyclic Pursuit -- Evolved Homogeneous Neuro-controllers for Robots with Different Sensory Capabilities: Coordinated Motion and Cooperation -- Robot Learning in a Social Robot -- Integration of an Autonomous Artificial Agent in an Insect Society: Experimental Validation -- Collective Decision-Making Based on Individual Discrimination Capability in Pre-social Insects -- Economic Optimisation in Honeybees: Adaptive Behaviour of a Superorganism -- Cumulative Cultural Evolution: Can We Ever Learn More? -- Agents Adopting Agriculture:Modeling the Agricultural