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Nota di contenuto	-- Bio-Inspired Navigation. -- Efficient Visual Navigation with Bio-Inspired Route Learning Algorithms. -- Insect-Based Navigation Model Allows Efficient Long-Range Visual Homing in a 3D Simulated Environment. -- Vector-Based Navigation Inspired by Directional Place Cells. -- A Behavior-Based Model of Foraging Nectarivorous Echolocating Bats. -- Benefit of Varying Navigation Strategies in Robot Teams. -- Biomimetic Robots. -- No-Brainer: Morphological Computation driven Adaptive Behavior in Soft Robots. -- CuttleBot: Emulating Cuttlefish Behavior and Intelligence in a Novel Robot Design. -- The Emergence of a Complex Representation of Touch Through Interaction with a Robot. -- Collective Behavior. -- Analyzing Multi-

Robot Leader-Follower Formations in Obstacle-Laden Environments. -- Spatio-Temporal Dynamics of Social Contagion in Bio-inspired Interaction Networks. -- Behavioural Contagion in Human and Artificial Multi-Agent Systems: A Computational Modeling Approach. -- Transient Milling Dynamics in Collective Motion with Visual Occlusion. -- Extended Swarming with Embodied Neural Computation for Human Control over Swarms. -- Bio-Inspired Agent-Based Model for Collective Shepherding. -- DaNCES: a Framework for Data-Inspired Agent-Based Models of Collective Escape. -- Evolutionary Approaches to Adaptive Behavior. -- The Role of Energy Constraints on the Evolution of Predictive Behavior. -- Influence of the Costs of Acquisition of Private and Social Information on Animal Dispersal. -- Integrated Information in Genetically Evolved Braitenberg Vehicles. -- Motor Learning. -- Neural Chaotic Dynamics for Adaptive Exploration Control of an Autonomous Flying Robot. -- Non-Instructed Motor Skill Learning in Monkeys: Insights from Deep Reinforcement Learning Models. -- Memory-Feedback Controllers for Lifelong Sensorimotor Learning in Humanoid Robots. -- Problem Solving and Decision-Making. -- Extracting Principles of Exploration Strategies with a Complex Ecological Task. -- The Cost of Behavioral Flexibility: Reversal Learning Driven by a Spiking Neural Network. -- “Value” emerges from imperfect memory. -- The Role of Theory of Mind in Finding Predator-Prey Nash Equilibria. -- Nonverbal Immediacy Analysis in Education: A Multimodal Computational Model.

Sommario/riassunto

This book constitutes the refereed proceedings of the 17th International Conference on Simulation of Adaptive Behavior, SAB 2024, held in Irvine, CA, USA, during September 9–12, 2024. The 26 full papers included in this book were carefully reviewed and selected from 30 submissions. They were organized in topical sections as follows: Bio-Inspired Navigation; Biomimetic Robots; Collective Behavior; Evolutionary Approaches to Adaptive Behavior; Motor Learning and Problem Solving and Decision-Making.