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Soggetti	Artificial intelligence Algorithms Computer science Application software Information storage and retrieval systems Database management Artificial Intelligence Theory of Computation Computer and Information Systems Applications Information Storage and Retrieval Database Management
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Nota di contenuto	A Bearing-only Pattern Formation Algorithm for Swarm Robotics -- A Macroscopic Privacy Model for Heterogeneous Robot Swarms -- A New Continuous Model for Segregation Implemented and Analyzed on Swarm Robots -- A Study of Archiving Strategies in Multi-objective PSO for Molecular Docking -- Ant Colony Optimisation-based Classification using Two-dimensional Polygons -- Collective Perception of Environmental Features in a Robot Swarm -- Communication Diversity in Particle Swarm Optimizers -- Continuous Time Gathering of Agents with Limited Visibility and Bearing-only Sensing -- Design and Analysis of Proximate Mechanisms for Cooperative Transport in Real Robots --

Dynamic Task Partitioning for Foraging Robot Swarms -- Human-robot Swarm Interaction with Limited Situational Awareness -- Monotonicity in Ant Colony Classification Algorithms -- Observing the Effects of Overdesign in the Automatic Design of Control Software for Robot Swarms -- Parameter Selection in Particle Swarm Optimisation from Stochastic Stability Analysis -- Population Coding: A New Design Paradigm for Embodied Distributed Systems -- Random Walks in Swarm Robotics: An Experiment with Kilobots -- Synthesizing Rulesets for Programmable Robotic Self-assembly: A Case Study using Floating Miniaturized Robots -- Using Ant Colony Optimization to Build Cluster-based Classification Systems -- A Swarm Intelligence Approach in Undersampling Majority Class -- Optimizing PolyACO Training with GPU-based Parallelization -- Motion Reconstruction of Swarm-like Self-organized Motor Bike Traffic from Public Videos -- On Heterogeneity in Foraging by Ant-like Colony: How Local Affects Global and Vice Versa -- On Stochastic Broadcast Control of Swarms -- Route Assignment for Autonomous Vehicles -- Stealing Items More Efficiently with Ants: A Swarm Intelligence Approach to the Travelling Thief Problem -- Achieving Synchronisation in Swarm Robotics: Applying Networked Q-Learning to Production Line Automata -- Autonomous Task Allocation for Swarm Robotic Systems Using Hierarchical Strategy -- Avoidance Strategies for Particle Swarm Optimisation in Power Generation Scheduling -- Clustering with the ACOR Algorithm -- Consideration Regarding the Reduction of Reality Gap in Evolutionary Swarm Robotics -- Hybrid Deployment Algorithm of Swarm Robots for Wireless Mesh Network -- On the Definition of Self-organizing Systems: Relevance of Positive/Negative Feedback and Fluctuations -- Particle Swarm Optimisation with Diversity Influenced Gradually Increasing Neighbourhoods.

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Sommario/riassunto

This book constitutes the proceedings of the 10th International Conference on Swarm Intelligence, ANTS 2016, held in Brussels, Belgium, in September 2016. The 18 full papers and 7 short papers presented in this volume were carefully reviewed and selected from 47 submissions. They are devoted to the field of swarm intelligence as a whole, without any bias towards specific research directions. .

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