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Titolo	Ant Colony Optimization and Swarm Intelligence : 6th International Conference, ANTS 2008, Brussels, Belgium, September 22-24, 2008, Proceedings // edited by Marco Dorigo, Mauro Birattari, Christian Blum, Maurice Clerc, Thomas Stützle, Alan Winfield
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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5217
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Soggetti	Artificial intelligence Computer programming Computer networks Algorithms Computer science Numerical analysis Artificial Intelligence Programming Techniques Computer Communication Networks Theory of Computation Numerical Analysis
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A Combined Ant Colony and Differential Evolution Feature Selection Algorithm -- A Combined Ant Colony and Differential Evolution Feature Selection Algorithm -- An Improved ACO Based Plug-in to Enhance the Interpretability of Fuzzy Rule Bases with Exceptions -- Ant Colony Optimization for Energy-Efficient Broadcasting in Ad-Hoc Networks -- Ant Colony Optimization for Genome-Wide Genetic Analysis -- cAnt-Miner: An Ant Colony Classification Algorithm to Cope with Continuous Attributes -- Finding Minimum Spanning/Distances Trees by Using River Formation Dynamics -- Gathering Multiple Robotic Agents with Crude Distance Sensing Capabilities -- Integration of ACO in a

Constraint Programming Language -- Learning from House-Hunting  
Ants: Collective Decision-Making in Organic Computing Systems --  
Modeling Phase Transition in Self-organized Mobile Robot Flocks --  
Molecular Structure Elucidation Using Ant Colony Optimization: A  
Preliminary Study -- Rigorous Analyses for the Combination of  
Ant Colony Optimization and Local Search -- Simple Dynamic Particle  
Swarms without Velocity -- Swarming in a Virtual World: A PSO  
Approach to Virtual Camera Composition -- The Binary Bridge Selection  
Problem: Stochastic Approximations and the Convergence of a Learning  
Algorithm -- Two-Level ACO for Haplotype Inference Under Pure  
Parsimony -- What Hides in Dimension X? A Quest for Visualizing  
Particle Swarms -- Short Papers -- A Dynamic Swarm for Visual  
Location Tracking -- A Simulation Study of Routing Performance in  
Realistic Urban Scenarios for MANETs -- ACO-Based Scheduling of  
Parallel Batch Processing Machines with Incompatible Job Families to  
Minimize Total Weighted Tardiness -- Adaptive Particle Swarm  
Optimization -- Ant Based Heuristics for the Capacitated Fixed Charge  
Location Problem -- Ant Colony Optimization and the Single Round  
Robin Maximum Value Problem -- Artificial Ants to Extract Leaf  
Outlines and Primary Venation Patterns -- Autonomous  
Reconfiguration in a Self-assembling Multi-robot System -- Beanbag  
Robotics: Robotic Swarms with 1-DoF Units -- BlâtAnt: Bounding  
Networks' Diameter with a Collaborative Distributed Algorithm --  
Dependency by Concentration of Pheromone Trail for Multiple Robots  
-- Dissemination of Information with Fair Load Distribution in Self-  
organizing Grids -- Emergent Sorting in Networks of Router Agents --  
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Modeling of BeeAdHoc: A Bio-inspired Mobile Ad Hoc Network Routing  
Protocol -- Incorporating Heuristics in a Swarm Intelligence Framework  
for Inferring Gene Regulatory Networks from Gene Expression Time  
Series -- Incorporating Preferences to a Multi-objective Ant Colony  
Algorithm for Time and Space Assembly Line Balancing -- KANTS:  
Artificial Ant System for Classification -- Lattice Formation in Space for  
a Swarm of Pico Satellites -- Merging Groups for the Exploration of  
Complex State Spaces in the CPSO Approach -- Parallel Ant Colony  
Optimization for the Quadratic Assignment Problems with Symmetric  
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Topographic Mapping -- The Small World of Pheromone Trails --  
Extended Abstracts -- A Particle Swarm Optimization Algorithm for  
Multiuser Scheduling in HSDPA -- AntLib v1.0: A Generic C++  
Framework for Ant Colony Optimization -- Applying a Distributed  
Swarm-Based Algorithm to Solve Instances of the RCPSP -- bicACO: An  
Ant Colony Inspired Biclustering Algorithm -- Dynamic Routing and  
Travel Time Prediction with Ant Based Control -- Network Formation  
Using Ant Colony Optimization -- On the Stability and the Parameters  
of Particle Swarm Optimization -- Regional Traffic Assignment by ACO  
-- Swarm Class: A Novel Data Clustering Approach by a Hybridization  
of an Ant Colony with Flying Insects -- The Differential Ant-Stigmergy  
Algorithm for Large Scale Real-Parameter Optimization.

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### Sommario/riassunto

This book constitutes the refereed proceedings of the 6th International Workshop on Ant Colony Optimization and Swarm Intelligence, ANTS 2008, held in Brussels, Belgium, in September 2008. The 17 revised full papers, 24 revised short papers, and 10 extended abstracts presented were carefully reviewed and selected from 91 submissions. The papers cover theoretical and foundational aspects of computational intelligence and related disciplines with special focus on swarm intelligence and are devoted to behavioral models of social insects and

new algorithmic approaches, empirical and theoretical research in swarm intelligence, applications such as ant colony optimization or particle swarm optimization, and theoretical and experimental research in swarm robotics systems.

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