

Marco Dorigo

List of Publications by Year in descending order

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256
papers

49,147
citations

13068

68
h-index

2439

197
g-index

270
all docs

270
docs citations

270
times ranked

19423
citing authors

#	ARTICLE	IF	CITATIONS
1	PSO-X: A Component-Based Framework for the Automatic Design of Particle Swarm Optimization Algorithms. IEEE Transactions on Evolutionary Computation, 2022, 26, 402-416.	7.5	23
2	Metaphor-based metaheuristics, a call for action: the elephant in the room. Swarm Intelligence, 2022, 16, 1-6.	1.3	45
3	An analysis of why cuckoo search does not bring any novel ideas to optimization. Computers and Operations Research, 2022, 142, 105747.	2.4	17
4	Emergent naming conventions in a foraging robot swarm. Swarm Intelligence, 2022, 16, 211-232.	1.3	2
5	Swarm Construction Coordinated Through the Building Material. Communications in Computer and Information Science, 2021, , 188-202.	0.4	0
6	Secure and secret cooperation in robot swarms. Science Robotics, 2021, 6, .	9.9	28
7	Swarm Robotics: Past, Present, and Future [Point of View]. Proceedings of the IEEE, 2021, 109, 1152-1165.	16.4	124
8	A computational study on ant colony optimization for the traveling salesman problem with dynamic demands. Computers and Operations Research, 2021, 135, 105359.	2.4	16
9	ANTS 2020 Special Issue: Editorial. Swarm Intelligence, 2021, 15, 311-313.	1.3	0
10	Reflections on the future of swarm robotics. Science Robotics, 2020, 5, .	9.9	143
11	Blockchain Technology Secures Robot Swarms: A Comparison of Consensus Protocols and Their Resilience to Byzantine Robots. Frontiers in Robotics and AI, 2020, 7, 54.	2.0	72
12	Language Evolution in Swarm Robotics: A Perspective. Frontiers in Robotics and AI, 2020, 7, 12.	2.0	7
13	Grey Wolf, Firefly and Bat Algorithms: Three Widespread Algorithms that Do Not Contain Any Novelty. Lecture Notes in Computer Science, 2020, , 121-133.	1.0	44
14	HuGoS: A Multi-user Virtual Environment for Studying Human-Human Swarm Intelligence. Lecture Notes in Computer Science, 2020, , 161-175.	1.0	2
15	Formation Control of UAVs and Mobile Robots Using Self-organized Communication Topologies. Lecture Notes in Computer Science, 2020, , 306-314.	1.0	11
16	Multi-robot Coverage Using Self-organized Networks for Central Coordination. Lecture Notes in Computer Science, 2020, , 216-228.	1.0	5
17	A Blockchain-Controlled Physical Robot Swarm Communicating via an Ad-Hoc Network. Lecture Notes in Computer Science, 2020, , 3-15.	1.0	11
18	Construction Task Allocation Through the Collective Perception of a Dynamic Environment. Lecture Notes in Computer Science, 2020, , 82-95.	1.0	7

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19	ANTS 2018 special issue: Editorial. Swarm Intelligence, 2019, 13, 169-172.	1.3	0
20	Urban Swarms: A new approach for autonomous waste management. , 2019, , .		24
21	The intelligent water drops algorithm: why it cannot be considered a novel algorithm. Swarm Intelligence, 2019, 13, 173-192.	1.3	30
22	An open-source multi-robot construction system. HardwareX, 2019, 5, e00050.	1.1	13
23	Supervised morphogenesis: Exploiting morphological flexibility of self-assembling multirobot systems through cooperation with aerial robots. Robotics and Autonomous Systems, 2019, 112, 154-167.	3.0	12
24	Ant Colony Optimization: Overview and Recent Advances. Profiles in Operations Research, 2019, , 311-351.	0.3	283
25	Kilogrid: a novel experimental environment for the Kilobot robot. Swarm Intelligence, 2018, 12, 245-266.	1.3	35
26	Human Responses to Stimuli Produced by Robot Swarms - the Effect of the Reality-Gap on Psychological State. Springer Proceedings in Advanced Robotics, 2018, , 531-543.	0.9	3
27	Hybrid Control of Swarms for Resource Selection. Lecture Notes in Computer Science, 2018, , 57-70.	1.0	4
28	Kinetics of orbitally shaken particles constrained to two dimensions. Physical Review E, 2018, 98, .	0.8	3
29	Simulating Multi-robot Construction in ARGoS. Lecture Notes in Computer Science, 2018, , 188-200.	1.0	9
30	Why the Intelligent Water Drops Cannot Be Considered as a Novel Algorithm. Lecture Notes in Computer Science, 2018, , 302-314.	1.0	11
31	Ant Colony Optimization: A Component-Wise Overview. , 2018, , 371-407.		14
32	Balancing exploitation of renewable resources by a robot swarm. Swarm Intelligence, 2018, 12, 307-326.	1.3	13
33	Mergeable nervous systems for robots. Nature Communications, 2017, 8, 439.	5.8	43
34	ANTS 2016 special issue: Editorial. Swarm Intelligence, 2017, 11, 181-183.	1.3	0
35	Analysis of the population-based ant colony optimization algorithm for the TSP and the QAP. , 2017, , .		15
36	Yield prediction in parallel homogeneous assembly. Soft Matter, 2017, 13, 7595-7608.	1.2	5

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37	The Best-of-n Problem in Robot Swarms: Formalization, State of the Art, and Novel Perspectives. <i>Frontiers in Robotics and AI</i> , 2017, 4, .	2.0	118
38	Structure and markings as stimuli for autonomous construction. , 2017, , .		12
39	Modeling Robot Swarms Using Integrals of Birth-Death Processes. <i>ACM Transactions on Autonomous and Adaptive Systems</i> , 2016, 11, 1-16.	0.4	8
40	Kilogrid: A modular virtualization environment for the Kilobot robot. , 2016, , .		16
41	Editorial: Ten years of swarm intelligence. <i>Swarm Intelligence</i> , 2016, 10, 245-246.	1.3	5
42	Investigating the effect of increasing robot group sizes on the human psychophysiological state in the context of human-robot swarm interaction. <i>Swarm Intelligence</i> , 2016, 10, 193-210.	1.3	32
43	Collective decision with 100 Kilobots: speed versus accuracy in binary discrimination problems. <i>Autonomous Agents and Multi-Agent Systems</i> , 2016, 30, 553-580.	1.3	108
44	The k -Unanimity Rule for Self-Organized Decision-Making in Swarms of Robots. <i>IEEE Transactions on Cybernetics</i> , 2016, 46, 1175-1188.	6.2	62
45	Ant Colony Optimization: A Component-Wise Overview. , 2016, , 1-37.		19
46	Autonomous Construction with Compliant Building Material. <i>Advances in Intelligent Systems and Computing</i> , 2016, , 1371-1388.	0.5	12
47	Collective Perception of Environmental Features in a Robot Swarm. <i>Lecture Notes in Computer Science</i> , 2016, , 65-76.	1.0	66
48	Population Coding: A New Design Paradigm for Embodied Distributed Systems. <i>Lecture Notes in Computer Science</i> , 2016, , 173-184.	1.0	5
49	A quantitative micro-macro link for collective decisions: the shortest path discovery/selection example. <i>Swarm Intelligence</i> , 2015, 9, 75-102.	1.3	51
50	Estimation-based metaheuristics for the single vehicle routing problem with stochastic demands and customers. <i>Computational Optimization and Applications</i> , 2015, 61, 463-487.	0.9	23
51	Spatially targeted communication in decentralized multirobot systems. <i>Autonomous Robots</i> , 2015, 38, 439-457.	3.2	9
52	ANTS 2014 special issue: Editorial. <i>Swarm Intelligence</i> , 2015, 9, 71-73.	1.3	1
53	The TAM: abstracting complex tasks in swarm robotics research. <i>Swarm Intelligence</i> , 2015, 9, 1-22.	1.3	28
54	Bio-inspired construction with mobile robots and compliant pockets. <i>Robotics and Autonomous Systems</i> , 2015, 74, 340-350.	3.0	39

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55	Property-Driven Design for Robot Swarms. ACM Transactions on Autonomous and Adaptive Systems, 2015, 9, 1-28.	0.4	48
56	Augmented reality for robots: Virtual sensing technology applied to a swarm of e-pucks. , 2015, , .		21
57	Adaptation and Awareness in Robot Ensembles: Scenarios and Algorithms. Lecture Notes in Computer Science, 2015, , 471-494.	1.0	12
58	Evolution of Self-Organized Task Specialization in Robot Swarms. PLoS Computational Biology, 2015, 11, e1004273.	1.5	86
59	A Design Pattern for Decentralised Decision Making. PLoS ONE, 2015, 10, e0140950.	1.1	97
60	Self-assembly. , 2014, , .		0
61	Gesturing at Subswarms: Towards Direct Human Control of Robot Swarms. Lecture Notes in Computer Science, 2014, , 390-403.	1.0	11
62	A unified ant colony optimization algorithm for continuous optimization. European Journal of Operational Research, 2014, 234, 597-609.	3.5	110
63	Task Partitioning in a Robot Swarm: Object Retrieval as a Sequence of Subtasks with Direct Object Transfer. Artificial Life, 2014, 20, 291-317.	1.0	22
64	Self-organized task allocation to sequentially interdependent tasks in swarm robotics. Autonomous Agents and Multi-Agent Systems, 2014, 28, 101-125.	1.3	82
65	Cooperative navigation in robotic swarms. Swarm Intelligence, 2014, 8, 1-33.	1.3	61
66	Ant Colony Optimization for Mixed-Variable Optimization Problems. IEEE Transactions on Evolutionary Computation, 2014, 18, 503-518.	7.5	203
67	A self-adaptive communication strategy for flocking in stationary and non-stationary environments. Natural Computing, 2014, 13, 225-245.	1.8	54
68	zePPeLIN: Distributed Path Planning Using an Overhead Camera Network. International Journal of Advanced Robotic Systems, 2014, 11, 119.	1.3	3
69	SRoCS: Leveraging Stigmergy on a Multi-robot Construction Platform for Unknown Environments. Lecture Notes in Computer Science, 2014, , 158-169.	1.0	24
70	Towards a Cognitive Design Pattern for Collective Decision-Making. Lecture Notes in Computer Science, 2014, , 194-205.	1.0	14
71	Derivation of a Micro-Macro Link for Collective Decision-Making Systems. Lecture Notes in Computer Science, 2014, , 181-190.	1.0	15
72	Swarm robotics. Scholarpedia Journal, 2014, 9, 1463.	0.3	115

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73	Socially-Mediated Negotiation for Obstacle Avoidance in Collective Transport. Springer Tracts in Advanced Robotics, 2013, , 571-583.	0.3	18
74	ANTS 2012 special issue. Swarm Intelligence, 2013, 7, 79-81.	1.3	0
75	Task partitioning in a robot swarm: a study on the effect of communication. Swarm Intelligence, 2013, 7, 173-199.	1.3	16
76	On the use of Bio-PEPA for modelling and analysing collective behaviours in swarm robotics. Swarm Intelligence, 2013, 7, 201-228.	1.3	32
77	Swarmanoid: A Novel Concept for the Study of Heterogeneous Robotic Swarms. IEEE Robotics and Automation Magazine, 2013, 20, 60-71.	2.2	254
78	Autonomous task partitioning in robot foraging: an approach based on cost estimation. Adaptive Behavior, 2013, 21, 118-136.	1.1	32
79	Elasticity-Based Mechanism for the Collective Motion of Self-Propelled Particles with Springlike Interactions: A Model System for Natural and Artificial Swarms. Physical Review Letters, 2013, 111, 268302.	2.9	96
80	Swarm robotics: a review from the swarm engineering perspective. Swarm Intelligence, 2013, 7, 1-41.	1.3	1,207
81	Collective motion dynamics of active solids and active crystals. New Journal of Physics, 2013, 15, 095011.	1.2	35
82	Majority Rule with Differential Latency: An Absorbing Markov Chain to Model Consensus. Springer Proceedings in Complexity, 2013, , 651-658.	0.2	10
83	An ACO algorithm benchmarked on the BBOB noiseless function testbed. , 2012, , .		6
84	Spatially targeted communication and self-assembly. , 2012, , .		11
85	Self-organized flocking with a mobile robot swarm: a novel motion control method. Adaptive Behavior, 2012, 20, 460-477.	1.1	129
86	Can ants inspire robots? Self-organized decision making in robotic swarms. , 2012, , .		11
87	Costs and benefits of behavioral specialization. Robotics and Autonomous Systems, 2012, 60, 1408-1420.	3.0	17
88	ARGoS: a modular, parallel, multi-engine simulator for multi-robot systems. Swarm Intelligence, 2012, 6, 271-295.	1.3	399
89	Multi-armed Bandit Formulation of the Task Partitioning Problem in Swarm Robotics. Lecture Notes in Computer Science, 2012, , 109-120.	1.0	13
90	Analysing Robot Swarm Decision-Making with Bio-PEPA. Lecture Notes in Computer Science, 2012, , 25-36.	1.0	8

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91	Analysing an Evolved Robotic Behaviour Using a Biological Model of Collegial Decision Making. Lecture Notes in Computer Science, 2012, , 381-390.	1.0	34
92	SWARMORPH: Morphogenesis with Self-Assembling Robots. Understanding Complex Systems, 2012, , 27-60.	0.3	13
93	Towards a Formal Verification Methodology for Collective Robotic Systems. Lecture Notes in Computer Science, 2012, , 54-70.	1.0	20
94	Incremental Social Learning in Particle Swarms. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 368-384.	5.5	109
95	Self-Organized Discrimination of Resources. PLoS ONE, 2011, 6, e19888.	1.1	43
96	ARGoS: A modular, multi-engine simulator for heterogeneous swarm robotics. , 2011, , .		7
97	Task partitioning in swarms of robots: an adaptive method for strategy selection. Swarm Intelligence, 2011, 5, 283-304.	1.3	49
98	Majority-rule opinion dynamics with differential latency: a mechanism for self-organized collective decision-making. Swarm Intelligence, 2011, 5, 305-327.	1.3	89
99	ANTS 2010 special issue. Swarm Intelligence, 2011, 5, 143-147.	1.3	2
100	An incremental ant colony algorithm with local search for continuous optimization. , 2011, , .		49
101	A detailed analysis of the population-based ant colony optimization algorithm for the TSP and the QAP. , 2011, , .		22
102	Parameter Adaptation in Ant Colony Optimization. , 2011, , 191-215.		64
103	ARGoS: A modular, multi-engine simulator for heterogeneous swarm robotics. , 2011, , .		82
104	Enhanced directional self-assembly based on active recruitment and guidance. , 2011, , .		6
105	Task Partitioning in Swarms of Robots: Reducing Performance Losses Due to Interference at Shared Resources. Lecture Notes in Electrical Engineering, 2011, , 217-228.	0.3	17
106	Swarm-Bots to the Rescue. Lecture Notes in Computer Science, 2011, , 165-172.	1.0	10
107	Costs and Benefits of Behavioral Specialization. Lecture Notes in Computer Science, 2011, , 90-101.	1.0	3
108	Artificial pheromone for path selection by a foraging swarm of robots. Biological Cybernetics, 2010, 103, 339-352.	0.6	63

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109	Self-assembly strategies in a group of autonomous mobile robots. <i>Autonomous Robots</i> , 2010, 28, 439-455.	3.2	52
110	Collective decision-making based on social odometry. <i>Neural Computing and Applications</i> , 2010, 19, 807-823.	3.2	44
111	Estimation-based metaheuristics for the probabilistic traveling salesman problem. <i>Computers and Operations Research</i> , 2010, 37, 1939-1951.	2.4	32
112	An analysis of communication policies for homogeneous multi-colony ACO algorithms. <i>Information Sciences</i> , 2010, 180, 2390-2404.	4.0	70
113	Engineering self-coordinating software intensive systems. , 2010, , .		1
114	Ant Colony Optimization: Overview and Recent Advances. <i>Profiles in Operations Research</i> , 2010, , 227-263.	0.3	259
115	Incremental Social Learning Applied to a Decentralized Decision-Making Mechanism: Collective Learning Made Faster. , 2010, , .		3
116	Self-organized Task Partitioning in a Swarm of Robots. <i>Lecture Notes in Computer Science</i> , 2010, , 287-298.	1.0	9
117	Cooperation in a Heterogeneous Robot Swarm through Spatially Targeted Communication. <i>Lecture Notes in Computer Science</i> , 2010, , 400-407.	1.0	4
118	Coordinating Heterogeneous Swarms through Minimal Communication among Homogeneous Sub-swarms. <i>Lecture Notes in Computer Science</i> , 2010, , 558-559.	1.0	3
119	Flocking in Stationary and Non-stationary Environments: A Novel Communication Strategy for Heading Alignment. , 2010, , 331-340.		26
120	Evolution of Signaling in a Multi-Robot System: Categorization and Communication. , 2010, , 161-178.		0
121	Opinion Dynamics for Decentralized Decision-Making in a Robot Swarm. <i>Lecture Notes in Computer Science</i> , 2010, , 251-262.	1.0	5
122	Heterogeneous particle swarm optimizers. , 2009, , .		38
123	SWARMORPH: Multirobot Morphogenesis Using Directional Self-Assembly. <i>IEEE Transactions on Robotics</i> , 2009, 25, 738-743.	7.3	53
124	Evolving Self-Assembly in Autonomous Homogeneous Robots: Experiments with Two Physical Robots. <i>Artificial Life</i> , 2009, 15, 465-484.	1.0	49
125	Teamwork in Self-Organized Robot Colonies. <i>IEEE Transactions on Evolutionary Computation</i> , 2009, 13, 695-711.	7.5	118
126	From Fireflies to Fault-Tolerant Swarms of Robots. <i>IEEE Transactions on Evolutionary Computation</i> , 2009, 13, 754-766.	7.5	137

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127	Frankenstein's PSO: A Composite Particle Swarm Optimization Algorithm. IEEE Transactions on Evolutionary Computation, 2009, 13, 1120-1132.	7.5	297
128	Adaptive sample size and importance sampling in estimation-based local search for the probabilistic traveling salesman problem. European Journal of Operational Research, 2009, 199, 98-110.	3.5	29
129	A survey on metaheuristics for stochastic combinatorial optimization. Natural Computing, 2009, 8, 239-287.	1.8	543
130	Estimation-based ant colony optimization and local search for the probabilistic traveling salesman problem. Swarm Intelligence, 2009, 3, 223-242.	1.3	53
131	Open E-puck Range & Bearing miniaturized board for local communication in swarm robotics. , 2009, , .		63
132	Towards group transport by swarms of robots. International Journal of Bio-Inspired Computation, 2009, 1, 1.	0.6	117
133	Social Odometry: Imitation Based Odometry in Collective Robotics. International Journal of Advanced Robotic Systems, 2009, 6, 11.	1.3	13
134	Path formation in a robot swarm. Swarm Intelligence, 2008, 2, 1-23.	1.3	125
135	SWARMORPH-script: a language for arbitrary morphology generation in self-assembling robots. Swarm Intelligence, 2008, 2, 143-165.	1.3	42
136	Fault detection in autonomous robots based on fault injection andÂlearning. Autonomous Robots, 2008, 24, 49-67.	3.2	77
137	Ant colony optimization for continuous domains. European Journal of Operational Research, 2008, 185, 1155-1173.	3.5	1,181
138	Self-Assembly at the Macroscopic Scale. Proceedings of the IEEE, 2008, 96, 1490-1508.	16.4	112
139	Swarm Robotics: The Coordination of Robots via Swarm Intelligence Principles. International Federation for Information Processing, 2008, , 1-1.	0.4	0
140	Self-Organizing and Scalable Shape Formation for a Swarm of Pico Satellites. , 2008, , .		30
141	Evolution of Solitary and Group Transport Behaviors for Autonomous Robots Capable of Self-Assembling. Adaptive Behavior, 2008, 16, 285-305.	1.1	54
142	Synchronization and fault detection in autonomous robots. , 2008, , .		12
143	Evolution of Signaling in a Multi-Robot System: Categorization and Communication. Adaptive Behavior, 2008, 16, 5-26.	1.1	34
144	Evolving Homogeneous Neurocontrollers for a Group of Heterogeneous Robots: Coordinated Motion, Cooperation, and Acoustic Communication. Artificial Life, 2008, 14, 157-178.	1.0	17

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145	Estimation-Based Local Search for Stochastic Combinatorial Optimization Using Delta Evaluations: A Case Study on the Probabilistic Traveling Salesman Problem. <i>INFORMS Journal on Computing</i> , 2008, 20, 644-658.	1.0	37
146	An Open Localization and Local Communication Embodied Sensor. <i>Sensors</i> , 2008, 8, 7545-7563.	2.1	55
147	Division of Labour in Self-organised Groups. <i>Lecture Notes in Computer Science</i> , 2008, , 426-436.	1.0	11
148	Evolution, Self-organization and Swarm Robotics. <i>Natural Computing Series</i> , 2008, , 163-191.	2.2	27
149	Autonomous Reconfiguration in a Self-assembling Multi-robot System. <i>Lecture Notes in Computer Science</i> , 2008, , 259-266.	1.0	7
150	Enhancing the Cooperative Transport of Multiple Objects. <i>Lecture Notes in Computer Science</i> , 2008, , 307-314.	1.0	2
151	Social Odometry in Populations of Autonomous Robots. <i>Lecture Notes in Computer Science</i> , 2008, , 371-378.	1.0	5
152	Particle swarm optimization. <i>Scholarpedia Journal</i> , 2008, 3, 1486.	0.3	38
153	Self-assembly and morphology control in a swarm-bot. , 2007, , .		3
154	Performance benefits of self-assembly in a swarm-bot. , 2007, , .		10
155	The ACO/F-Race Algorithm for Combinatorial Optimization Under Uncertainty. , 2007, , 189-203.		14
156	On the Invariance of Ant Colony Optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2007, 11, 732-742.	7.5	77
157	Morphology control in a multirobot system. <i>IEEE Robotics and Automation Magazine</i> , 2007, 14, 18-25.	2.2	70
158	Self-Organized Coordinated Motion in Groups of Physically Connected Robots. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , 2007, 37, 224-239.	5.5	84
159	Automatic Synthesis of Fault Detection Modules for Mobile Robots. , 2007, , .		9
160	How to assess and report the performance of a stochastic algorithm on a benchmark problem: mean or best result on a number of runs?. <i>Optimization Letters</i> , 2007, 1, 309-311.	0.9	33
161	From Solitary to Collective Behaviours: Decision Making and Cooperation. , 2007, , 575-584.		8
162	Efficient Multi-foraging in Swarm Robotics. , 2007, , 696-705.		41

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163	A Mechanism to Self-Assemble Patterns with Autonomous Robots. , 2007, , 716-725.		1
164	Self-Organised Task Allocation in a Group of Robots. , 2007, , 389-398.		16
165	Ant colony optimization. Scholarpedia Journal, 2007, 2, 1461.	0.3	136
166	Swarm intelligence. Scholarpedia Journal, 2007, 2, 1462.	0.3	112
167	Exogenous Fault Detection in a Collective Robotic Task. , 2007, , 555-564.		3
168	Swarms of Self-assembling Robots. Lecture Notes in Computer Science, 2007, , 1-2.	1.0	0
169	Negotiation of Goal Direction for Cooperative Transport. Lecture Notes in Computer Science, 2006, , 191-202.	1.0	29
170	Ant-Based Clustering and Topographic Mapping. Artificial Life, 2006, 12, 35-62.	1.0	167
171	Autonomous Self-Assembly in Swarm-Bots. , 2006, 22, 1115-1130.		255
172	Towards a theory of practice in metaheuristics design: A machine learning perspective. RAIRO - Theoretical Informatics and Applications, 2006, 40, 353-369.	0.5	23
173	Ant Colony Optimization. IEEE Computational Intelligence Magazine, 2006, 1, 28-39.	3.4	906
174	Self-organisation and communication in groups of simulated and physical robots. Biological Cybernetics, 2006, 95, 213-231.	0.6	63
175	Cooperative hole avoidance in a swarm-bot. Robotics and Autonomous Systems, 2006, 54, 97-103.	3.0	79
176	Ant colony optimization. IEEE Computational Intelligence Magazine, 2006, 1, 28-39.	3.4	3,284
177	Division of labor in a group of robots inspired by ants' foraging behavior. ACM Transactions on Autonomous and Adaptive Systems, 2006, 1, 4-25.	0.4	166
178	Cooperation through self-assembly in multi-robot systems. ACM Transactions on Autonomous and Adaptive Systems, 2006, 1, 115-150.	0.4	83
179	A Comparison of Particle Swarm Optimization Algorithms Based on Run-Length Distributions. Lecture Notes in Computer Science, 2006, , 1-12.	1.0	18
180	Chain Based Path Formation in Swarms of Robots. Lecture Notes in Computer Science, 2006, , 120-131.	1.0	31

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181	Incremental Local Search in Ant Colony Optimization: Why It Fails for the Quadratic Assignment Problem. Lecture Notes in Computer Science, 2006, , 156-166.	1.0	6
182	On the Invariance of Ant System. Lecture Notes in Computer Science, 2006, , 215-223.	1.0	4
183	Incremental Evolution of Robot Controllers for a Highly Integrated Task. Lecture Notes in Computer Science, 2006, , 473-484.	1.0	11
184	Autonomous Self-assembly in a Swarm-bot. , 2006, , 314-322.		22
185	Evolution of Signalling in a Group of Robots Controlled by Dynamic Neural Networks. , 2006, , 173-188.		4
186	Evolved Homogeneous Neuro-controllers for Robots with Different Sensory Capabilities: Coordinated Motion and Cooperation. Lecture Notes in Computer Science, 2006, , 679-690.	1.0	5
187	Swarm-bot: A Novel Type of Self-Assembling Robot. , 2006, , 3-4.		0
188	The cooperation of swarm-bots - Physical interactions in collective robotics. IEEE Robotics and Automation Magazine, 2005, 12, 21-28.	2.2	159
189	Ant colony optimization theory: A survey. Theoretical Computer Science, 2005, 344, 243-278.	0.5	1,830
190	Search Bias in Ant Colony Optimization: On the Role of Competition-Balanced Systems. IEEE Transactions on Evolutionary Computation, 2005, 9, 159-174.	7.5	87
191	SWARM-BOT: an experiment in swarm robotics. , 2005, , .		43
192	The SWARM-BOTS Project. Lecture Notes in Computer Science, 2005, , 31-44.	1.0	49
193	Evolving Neural Mechanisms for an Iterated Discrimination Task: A Robot Based Model. Lecture Notes in Computer Science, 2005, , 231-240.	1.0	2
194	Self-assembly on Demand in a Group of Physical Autonomous Mobile Robots Navigating Rough Terrain. Lecture Notes in Computer Science, 2005, , 272-281.	1.0	19
195	Efficiency and Task Allocation in Prey Retrieval. Lecture Notes in Computer Science, 2004, , 274-289.	1.0	20
196	Evolving a Cooperative Transport Behavior for Two Simple Robots. Lecture Notes in Computer Science, 2004, , 305-316.	1.0	14
197	“Feeling” the flow of time through sensorimotor co-ordination. Connection Science, 2004, 16, 301-324.	1.8	19
198	Strategies for the Increased Robustness of Ant-Based Clustering. Lecture Notes in Computer Science, 2004, , 90-104.	1.0	26

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199	Model-Based Search for Combinatorial Optimization: A Critical Survey. <i>Annals of Operations Research</i> , 2004, 131, 373-395.	2.6	193
200	Swarm-Bot: A New Distributed Robotic Concept. <i>Autonomous Robots</i> , 2004, 17, 193-221.	3.2	277
201	Evolving Self-Organizing Behaviors for a Swarm-Bot. <i>Autonomous Robots</i> , 2004, 17, 223-245.	3.2	265
202	The Hyper-Cube Framework for Ant Colony Optimization. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , 2004, 34, 1161-1172.	5.5	329
203	Cooperative Transport of Objects of Different Shapes and Sizes. <i>Lecture Notes in Computer Science</i> , 2004, , 106-117.	1.0	23
204	Deception in Ant Colony Optimization. <i>Lecture Notes in Computer Science</i> , 2004, , 118-129.	1.0	24
205	Evolution of Direct Communication for a Swarm-bot Performing Hole Avoidance. <i>Lecture Notes in Computer Science</i> , 2004, , 130-141.	1.0	26
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