

Martin Middendorf

List of Publications by Year in descending order

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161
papers

8,535
citations

117625

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all docs

171
docs citations

171
times ranked

7406
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolutionary Dynamic Multiobjective Optimization via Learning From Historical Search Process. IEEE Transactions on Cybernetics, 2022, 52, 6119-6130.	9.5	18
2	On permutation schedules for two-machine flow shops with buffer constraints and constant processing times on one machine. European Journal of Operational Research, 2022, 303, 593-601.	5.7	0
3	Complete edge-colored permutation graphs. Advances in Applied Mathematics, 2022, 139, 102377.	0.7	2
4	An Improvement Heuristic Based on Variable Neighborhood Search for Dynamic Orienteering Problems with Changing Node Values and Changing Budgets. SN Computer Science, 2022, 3, .	3.6	0
5	Sorting Signed Permutations by Inverse Tandem Duplication Random Losses. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 2177-2188.	3.0	0
6	Iterated Local Search and Other Algorithms for Buffered Two-Machine Permutation Flow Shops with Constant Processing Times on One Machine. Evolutionary Computation, 2021, 29, 415-439.	3.0	3
7	A Hierarchical Simple Probabilistic Population-Based Algorithm Applied to the Dynamic TSP. , 2021, , .		2
8	Individual differences in honey bee behavior enabled by plasticity in brain gene regulatory networks. ELife, 2020, 9, .	6.0	27
9	A weighted population update rule for PACO applied to the single machine total weighted tardiness problem. , 2020, , .		3
10	Coarse-Graining Large Search Landscapes Using Massive Edge Collapse. Mathematics and Visualization, 2020, , 55-69.	0.6	0
11	An Exact Algorithm for Sorting by Weighted Preserving Genome Rearrangements. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 16, 52-62.	3.0	7
12	Improved annotation of protein-coding genes boundaries in metazoan mitochondrial genomes. Nucleic Acids Research, 2019, 47, 10543-10552.	14.5	324
13	An Iterated Local Search Algorithm for the Two-Machine Flow Shop Problem with Buffers and Constant Processing Times on One Machine. Lecture Notes in Computer Science, 2019, , 50-65.	1.3	4
14	Re-assessing the diversity of negative strand RNA viruses in insects. PLoS Pathogens, 2019, 15, e1008224.	4.7	101
15	Automated monitoring of behavior reveals bursty interaction patterns and rapid spreading dynamics in honeybee social networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1433-1438.	7.1	103
16	Genome Rearrangement Analysis: Cut and Join Genome Rearrangements and Gene Cluster Preserving Approaches. Methods in Molecular Biology, 2018, 1704, 261-289.	0.9	5
17	Combinatorics of Tandem Duplication Random Loss Mutations on Circular Genomes. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2018, 15, 83-95.	3.0	9
18	Genome Rearrangement with ILP. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2018, 15, 1-1.	3.0	9

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19	A strict upper bound for the partition distance and the cluster distance of phylogenetic trees for each fixed pair of topological trees. PLoS ONE, 2018, 13, e0204907.	2.5	0
20	EqualTDRL: illustrating equivalent tandem duplication random loss rearrangements. BMC Bioinformatics, 2018, 19, 192.	2.6	7
21	Visualizing Topological Properties of the Search Landscape of Combinatorial Optimization Problems. Mathematics and Visualization, 2017, , 69-85.	0.6	2
22	Population Based Ant Colony Optimization for Reconstructing ECG Signals. Lecture Notes in Computer Science, 2016, , 770-785.	1.3	1
23	Population based ant colony optimization for reconstructing ECG signals. Evolutionary Intelligence, 2016, 9, 55-66.	3.6	4
24	Simple Probabilistic Population-Based Optimization. IEEE Transactions on Evolutionary Computation, 2016, 20, 245-262.	10.0	11
25	A Population Based ACO Algorithm for the Combined Tours TSP Problem. , 2016, , .		1
26	A Branch&Bound Approach for Tautomer Enumeration. Molecular Informatics, 2015, 34, 263-275.	2.5	2
27	Task allocation in organic computing systems: networks with reconfigurable helper units. International Journal of Autonomous and Adaptive Communications Systems, 2015, 8, 60.	0.3	1
28	Phylogenomics with paralogs. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2058-2063.	7.1	83
29	Refined ranking relations for selection of solutions in multi objective metaheuristics. European Journal of Operational Research, 2015, 243, 454-464.	5.7	6
30	Decentralized and dynamic group formation of reconfigurable agents. Memetic Computing, 2015, 7, 77-91.	4.0	2
31	Cophylogenetic Reconciliation with ILP. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2015, 12, 1227-1235.	3.0	13
32	A Visual Method for Analysis and Comparison of Search Landscapes. , 2015, , .		6
33	Evolutionary Inheritance Mechanisms for Multi-criteria Decision Making in Multi-agent Systems. , 2015, , .		3
34	Towards a comprehensive picture of alloacceptor tRNA remodeling in metazoan mitochondrial genomes. Nucleic Acids Research, 2015, 43, 8044-8056.	14.5	22
35	Local Similarity Search to Find Gene Indicators in Mitochondrial Genomes. Biology, 2014, 3, 220-242.	2.8	1
36	22 Computational methods for the analysis of mitochondrial genome rearrangements. , 2014, , 515-530.		4

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37	Challenges in RNA virus bioinformatics. <i>Bioinformatics</i> , 2014, 30, 1793-1799.	4.1	47
38	An empirically based simulation of group foraging in the harvesting ant, <i>Messor pergandei</i> . <i>Journal of Theoretical Biology</i> , 2014, 340, 186-198.	1.7	4
39	Swarm Intelligence. , 2014, , 213-242.		3
40	Self-adaptable Group Formation of Reconfigurable Agents in Dynamic Environments. <i>Studies in Computational Intelligence</i> , 2014, , 287-301.	0.9	1
41	Comparing the Optimization Behaviour of Heuristics with Topology Based Visualization. <i>Lecture Notes in Computer Science</i> , 2014, , 47-58.	1.3	3
42	Visual Analysis of Discrete Particle Swarm Optimization Using Fitness Landscapes. <i>Emergence, Complexity and Computation</i> , 2014, , 487-507.	0.3	5
43	The Influence of Correlated Objectives on Different Types of P-ACO Algorithms. <i>Lecture Notes in Computer Science</i> , 2014, , 230-241.	1.3	3
44	Self-organized cooperation between agents that have to solve resource collection tasks. , 2013, , .		3
45	Simple probabilistic population based optimization for combinatorial optimization. , 2013, , .		5
46	Bioinformatics methods for the comparative analysis of metazoan mitochondrial genome sequences. <i>Molecular Phylogenetics and Evolution</i> , 2013, 69, 320-327.	2.7	31
47	A comprehensive analysis of bilaterian mitochondrial genomes and phylogeny. <i>Molecular Phylogenetics and Evolution</i> , 2013, 69, 352-364.	2.7	183
48	MITOS: Improved de novo metazoan mitochondrial genome annotation. <i>Molecular Phylogenetics and Evolution</i> , 2013, 69, 313-319.	2.7	3,919
49	A common interval guided ACO algorithm for permutation problems. , 2013, , .		1
50	Swarm controlled emergence for ant clustering. <i>International Journal of Intelligent Computing and Cybernetics</i> , 2013, 6, 62-82.	2.7	12
51	Unifying Parsimonious Tree Reconciliation. <i>Lecture Notes in Computer Science</i> , 2013, , 200-214.	1.3	7
52	Improved systematic tRNA gene annotation allows new insights into the evolution of mitochondrial tRNA structures and into the mechanisms of mitochondrial genome rearrangements. <i>Nucleic Acids Research</i> , 2012, 40, 2833-2845.	14.5	218
53	Annotation guided local similarity search in multiple sequences and its application to mitochondrial genomes. , 2012, , .		0
54	A mathematical model of foraging in a dynamic environment by trail-laying Argentine ants. <i>Journal of Theoretical Biology</i> , 2012, 306, 32-45.	1.7	15

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55	Tuning positive feedback for signal detection in noisy dynamic environments. <i>Journal of Theoretical Biology</i> , 2012, 309, 88-95.	1.7	0
56	Genetic characterization of Tribeca virus and Kemerovo virus, two tick-transmitted human-pathogenic Orbiviruses. <i>Virology</i> , 2012, 423, 68-76.	2.4	44
57	Preserving Inversion Phylogeny Reconstruction. <i>Lecture Notes in Computer Science</i> , 2012, , 1-13.	1.3	2
58	Bonding as a swarm. , 2011, , .		1
59	Particle swarm optimization for finding RNA secondary structures. <i>International Journal of Intelligent Computing and Cybernetics</i> , 2011, 4, 160-186.	2.7	9
60	Learning classifier systems to evolve classification rules for systems of memory constrained components. <i>Evolutionary Intelligence</i> , 2011, 4, 127-143.	3.6	3
61	Performance evaluation of artificial bee colony optimization and new selection schemes. <i>Memetic Computing</i> , 2011, 3, 149-162.	4.0	93
62	Deciding on the wing: in-flight decision making and search space sampling in the red dwarf honeybee <i>Apis florea</i> . <i>Swarm Intelligence</i> , 2011, 5, 121-141.	2.2	28
63	A method for computing an inventory of metazoan mitochondrial gene order rearrangements. <i>BMC Bioinformatics</i> , 2011, 12, S6.	2.6	28
64	Finding all sorting tandem duplication random loss operations. <i>Journal of Discrete Algorithms</i> , 2011, 9, 32-48.	0.7	14
65	Trophallaxis-inspired self-organized task exchange in heterogeneous swarms. , 2011, , .		1
66	Structure and formation of ant transportation networks. <i>Journal of the Royal Society Interface</i> , 2011, 8, 1298-1306.	3.4	64
67	Ant Inspired Methods for Organic Computing. , 2011, , 95-109.		4
68	Quick-ACO: Accelerating Ant Decisions and Pheromone Updates in ACO. <i>Lecture Notes in Computer Science</i> , 2011, , 238-249.	1.3	2
69	A parameter-adaptive dynamic programming approach for inferring cophylogenies. <i>BMC Bioinformatics</i> , 2010, 11, S60.	2.6	90
70	Multi-level reconfigurable architectures in the switch model. <i>Journal of Systems Architecture</i> , 2010, 56, 103-115.	4.3	3
71	Perspectives of extending runtime reconfigurable computing to the enterprise application domain. , 2010, , .		0
72	Sensor Placement in Water Networks Using a Population-Based Ant Colony Optimization Algorithm. <i>Lecture Notes in Computer Science</i> , 2010, , 426-437.	1.3	7

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73	Artificial Bee Colony Optimization: A New Selection Scheme and Its Performance. <i>Studies in Computational Intelligence</i> , 2010, , 283-294.	0.9	20
74	Models and Algorithms for Hyperreconfigurable Hardware. , 2010, , 75-94.		1
75	On the Design of RNA Sequences for Realizing Extended Shapes. , 2009, , .		1
76	ADAPTING TO DYNAMIC ENVIRONMENTS: POLYETHISM IN RESPONSE THRESHOLD MODELS FOR SOCIAL INSECTS. <i>International Journal of Modeling, Simulation, and Scientific Computing</i> , 2009, 12, 327-346.	1.4	3
77	Editorial Special Issue: Swarm Intelligence. <i>IEEE Transactions on Evolutionary Computation</i> , 2009, 13, 677-680.	10.0	7
78	Self-synchronized duty-cycling for mobile sensor networks with energy harvesting capabilities: A swarm intelligence study. , 2009, , .		10
79	Self-adaptive Worker-Helper Systems with Self-Organized Task Allocation. <i>Understanding Complex Systems</i> , 2009, , 221-239.	0.6	0
80	Finding All Sorting Tandem Duplication Random Loss Operations. <i>Lecture Notes in Computer Science</i> , 2009, , 301-313.	1.3	0
81	Design Aspects of Multi-level Reconfigurable Architectures. <i>Journal of Signal Processing Systems</i> , 2008, 51, 23-37.	2.1	6
82	Self-Organized Task Allocation for Service Tasks in Computing Systems with Reconfigurable Components. <i>Mathematical Modelling and Algorithms</i> , 2008, 7, 237-254.	0.5	3
83	Stability and performance of ant queue inspired task partitioning methods. <i>Theory in Biosciences</i> , 2008, 127, 149-161.	1.4	7
84	Editorial. <i>Theory in Biosciences</i> , 2008, 127, 67-68.	1.4	0
85	Molecular docking with multi-objective Particle Swarm Optimization. <i>Applied Soft Computing Journal</i> , 2008, 8, 666-675.	7.2	112
86	Evolution of mitochondrial gene orders in echinoderms. <i>Molecular Phylogenetics and Evolution</i> , 2008, 47, 855-864.	2.7	73
87	Swarm intelligence and signal processing [DSP Exploratory]. <i>IEEE Signal Processing Magazine</i> , 2008, 25, 152-158.	5.6	19
88	Folding Kinetics of Large RNAs. <i>Journal of Molecular Biology</i> , 2008, 379, 160-173.	4.2	77
89	On the Reconfiguration Costs of Models for Partially Reconfigurable FPGAs. , 2008, , .		1
90	SPP1148 booth: Hyperreconfigurable architectures. , 2008, , .		1

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91	Creating melodies and baroque harmonies with ant colony optimization. International Journal of Intelligent Computing and Cybernetics, 2008, 1, 213-238.	2.7	8
92	Solving the Preserving Reversal Median Problem. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2008, 5, 332-347.	3.0	7
93	Evaluation of Ordering Methods for DNA Sequence Design Based on Ant Colony System. , 2008, , .		12
94	A decentralization approach for swarm intelligence algorithms in networks applied to multi swarm PSO. International Journal of Intelligent Computing and Cybernetics, 2008, 1, 25-45.	2.7	20
95	Congestion Control in Ant Like Moving Agent Systems. International Federation for Information Processing, 2008, , 33-43.	0.4	7
96	Organic Computing and Swarm Intelligence. Natural Computing Series, 2008, , 253-281.	2.2	3
97	Learning from House-Hunting Ants: Collective Decision-Making in Organic Computing Systems. Lecture Notes in Computer Science, 2008, , 96-107.	1.3	7
98	An Algorithm for Inferring Mitogenome Rearrangements in a Phylogenetic Tree. Lecture Notes in Computer Science, 2008, , 143-157.	1.3	29
99	CREx: inferring genomic rearrangements based on common intervals. Bioinformatics, 2007, 23, 2957-2958.	4.1	276
100	Using median sets for inferring phylogenetic trees. Bioinformatics, 2007, 23, e129-e135.	4.1	16
101	An ant colony optimizer for melody creation with baroque harmony. , 2007, , .		12
102	On Trajectories of Particles in PSO. , 2007, , .		23
103	A Particle Swarm Optimizer for Finding Minimum Free Energy RNA Secondary Structures. , 2007, , .		18
104	Swarm Controlled Emergence - Designing an Anti-Clustering Ant System. , 2007, , .		6
105	Hardware-oriented ant colony optimization. Journal of Systems Architecture, 2007, 53, 386-402.	4.3	13
106	A Fast and Exact Algorithm for the Perfect Reversal Median Problem. , 2007, , 305-316.		2
107	Granularity aspects for the design of multi-level reconfigurable architectures. , 2006, , .		4
108	Genome Rearrangement Based on Reversals that Preserve Conserved Intervals. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2006, 3, 275-288.	3.0	12

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109	A hierarchical particle swarm optimizer for noisy and dynamic environments. Genetic Programming and Evolvable Machines, 2006, 7, 329-354.	2.2	70
110	Using Decentralized Clustering for Task Allocation in Networks with Reconfigurable Helper Units. Lecture Notes in Computer Science, 2006, , 137-147.	1.3	4
111	The Reversal Median Problem, Common Intervals, and Mitochondrial Gene Orders. Lecture Notes in Computer Science, 2006, , 52-63.	1.3	2
112	Parallel Ant Colony Algorithms. , 2005, , 171-201.		19
113	Counter-Based Ant Colony Optimization as a Hardware-Oriented Meta-heuristic. Lecture Notes in Computer Science, 2005, , 235-244.	1.3	2
114	Modelling Ant Brood Tending Behavior with Cellular Automata. Lecture Notes in Computer Science, 2005, , 412-419.	1.3	1
115	Multi task hyperreconfigurable architectures: models and reconfiguration problems. International Journal of Embedded Systems, 2005, 1, 154.	0.3	4
116	Hyperreconfigurable architectures and the partition into hypercontexts problem. Journal of Parallel and Distributed Computing, 2005, 65, 743-754.	4.1	10
117	Reconstruction of the cophylogenetic history of related phylogenetic trees with divergence timing information. Theory in Biosciences, 2005, 123, 277-299.	1.4	59
118	Honeybee swarms: how do scouts guide a swarm of uninformed bees?. Animal Behaviour, 2005, 70, 349-358.	1.9	80
119	DECENTRALIZED PACKET CLUSTERING IN ROUTER-BASED NETWORKS. International Journal of Foundations of Computer Science, 2005, 16, 321-341.	1.1	8
120	A hierarchical particle swarm optimizer and its adaptive variant. IEEE Transactions on Systems, Man, and Cybernetics, 2005, 35, 1272-1282.	5.0	293
121	Waiting Strategies for Dynamic Vehicle Routing. Transportation Science, 2005, 39, 298-312.	4.4	105
122	On solving permutation scheduling problems with ant colony optimization. International Journal of Systems Science, 2005, 36, 255-266.	5.5	17
123	Dynamic Decentralized Packet Clustering in Networks. Lecture Notes in Computer Science, 2005, , 574-583.	1.3	4
124	Swarm Intelligence. , 2005, , 401-435.		15
125	Dynamic Polyethism and Competition for Tasks in Threshold Reinforcement Models of Social Insects. Adaptive Behavior, 2004, 12, 251-262.	1.9	36
126	Combined super-/substring and super-/subsequence problems. Theoretical Computer Science, 2004, 320, 247-267.	0.9	5

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127	Competition Controlled Pheromone Update for Ant Colony Optimization. Lecture Notes in Computer Science, 2004, , 95-105.	1.3	5
128	Time-Scattered Heuristic for the Hardware Implementation of Population-Based ACO. Lecture Notes in Computer Science, 2004, , 250-261.	1.3	1
129	The Partition into Hypercontexts Problem for Hyperreconfigurable Architectures. Lecture Notes in Computer Science, 2004, , 251-260.	1.3	3
130	Title is missing!. Journal of Supercomputing, 2003, 26, 221-238.	3.6	6
131	Ant Colony Optimization with Global Pheromone Evaluation for Scheduling a Single Machine. Applied Intelligence, 2003, 18, 105-111.	5.3	80
132	Solving Multi-criteria Optimization Problems with Population-Based ACO. Lecture Notes in Computer Science, 2003, , 464-478.	1.3	36
133	On the Behavior of ACO Algorithms: Studies on Simple Problems. Applied Optimization, 2003, , 465-480.	0.4	2
134	Modeling the Dynamics of Ant Colony Optimization. Evolutionary Computation, 2002, 10, 235-262.	3.0	87
135	A Population Based Approach for ACO. Lecture Notes in Computer Science, 2002, , 72-81.	1.3	121
136	Applying Population Based ACO to Dynamic Optimization Problems. Lecture Notes in Computer Science, 2002, , 111-122.	1.3	116
137	On scheduling cycle shops: classification, complexity and approximation. Journal of Scheduling, 2002, 5, 135-169.	1.9	23
138	An Evolutionary Approach to Dynamic Task Scheduling on FPGAs with Restricted Buffer. Journal of Parallel and Distributed Computing, 2002, 62, 1407-1420.	4.1	3
139	Width-restricted layering of acyclic digraphs with consideration of dummy nodes. Information Processing Letters, 2002, 81, 59-63.	0.6	9
140	Multi Colony Ant Algorithms. Journal of Heuristics, 2002, 8, 305-320.	1.4	138
141	Fast Ant Colony Optimization on Runtime Reconfigurable Processor Arrays. Genetic Programming and Evolvable Machines, 2002, 3, 345-361.	2.2	30
142	Modelling ACO: Composed Permutation Problems. Lecture Notes in Computer Science, 2002, , 149-162.	1.3	10
143	Ant Colony Optimization with the Relative Pheromone Evaluation Method. Lecture Notes in Computer Science, 2002, , 325-333.	1.3	3
144	Bi-Criterion Optimization with Multi Colony Ant Algorithms. Lecture Notes in Computer Science, 2001, , 359-372.	1.3	144

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145	Pheromone Modification Strategies for Ant Algorithms Applied to Dynamic TSP. Lecture Notes in Computer Science, 2001, , 213-222.	1.3	109
146	A New Approach to Solve Permutation Scheduling Problems with Ant Colony Optimization. Lecture Notes in Computer Science, 2001, , 484-494.	1.3	17
147	An Ant Algorithm with a New Pheromone Evaluation Rule for Total Tardiness Problems. Lecture Notes in Computer Science, 2000, , 290-299.	1.3	56
148	Information Exchange in Multi Colony Ant Algorithms. Lecture Notes in Computer Science, 2000, , 645-652.	1.3	46
149	Multiplication of Matrices With Different Sparseness Properties on Dynamically Reconfigurable Meshes. VLSI Design, 1999, 9, 69-81.	0.5	7
150	Scheduling inverse trees under the communication model of the LogP-machine. Theoretical Computer Science, 1999, 215, 137-168.	0.9	4
151	Transversal Graphs for Partially Ordered Sets: Sequencing, Merging and Scheduling Problems. Journal of Combinatorial Optimization, 1999, 3, 417-435.	1.3	8
152	Improved heuristics and a genetic algorithm for finding short supersequences. OR Spectrum, 1998, 20, 39-45.	3.4	33
153	Shortest common superstrings and scheduling with coordinated starting times. Theoretical Computer Science, 1998, 191, 205-214.	0.9	9
154	An island model based ant system with lookahead for the shortest supersequence problem. Lecture Notes in Computer Science, 1998, , 692-701.	1.3	67
155	A simulator for the reconfigurable mesh architecture. Lecture Notes in Computer Science, 1998, , 99-104.	1.3	7
156	Maximal Common Subsequences and Minimal Common Supersequences. Information and Computation, 1996, 124, 145-153.	0.7	12
157	Two-Dimensional partitioning problems. Theoretical Computer Science, 1996, 164, 73-106.	0.9	0
158	On Physical Mapping and the consecutive ones property for sparse matrices. Discrete Applied Mathematics, 1996, 71, 23-40.	0.9	16
159	On finding minimal, maximal, and consistent sequences over a binary alphabet. Theoretical Computer Science, 1995, 145, 317-327.	0.9	9
160	More on the complexity of common superstring and supersequence problems. Theoretical Computer Science, 1994, 125, 205-228.	0.9	50
161	Minimum broadcast time is NP-complete for 3-regular planar graphs and deadline 2. Information Processing Letters, 1993, 46, 281-287.	0.6	41