

# An evolutionary approach to the traveling salesman problem

Biological Cybernetics

60, 139-144

DOI: [10.1007/bf00202901](https://doi.org/10.1007/bf00202901)

Citation Report

#	ARTICLE	IF	CITATIONS
1	A new approach to the traveling salesman problem. , 0, , .		5
2	Route Optimization Through Evolutionary Programming. , 0, , .		5
3	Evolutionary programming for voice feature analysis. , 1989, , .		5
4	Scheduling jobs with simple precedence constraints on parallel machines. Control Systems Magazine, 1990, 10, 34-40.	0.0	73
5	Evolving neural networks. Biological Cybernetics, 1990, 63, 487-493.	1.3	243
6	Comparing genetic operators with gaussian mutations in simulated evolutionary processes using linear systems. Biological Cybernetics, 1990, 63, 111-114.	1.3	208
7	The "molecular" traveling salesman. Biological Cybernetics, 1990, 64, 7-14.	1.3	125
8	AN INFORMATION CRITERION FOR OPTIMAL NEURAL NETWORK SELECTION. , 0, , .		4
9	Simulated Evolution: A 30-Year Perspective. , 0, , .		1
10	Optimal routing of multiple autonomous underwater vehicles through evolutionary programming. , 0, , .		24
11	Selecting an optimal neural network. , 0, , .		2
12	Use Of Evolutionary Programming In The Design Of Neural Networks For Artifact Detection. , 0, , .		4
13	Evolutionary system identification and control. , 0, , .		2
14	Design of SLAYR Neural Networks Using Evolutionary Programming. , 0, , .		8
15	Evolutionary programming for training neural networks. , 1990, , .		15
16	An information criterion for optimal neural network selection. IEEE Transactions on Neural Networks, 1991, 2, 490-497.	4.2	159
17	Minimax design of CMAC encoded neural network controllers using evolutionary programming. , 0, , .		2
18	Heuristic combinatorial optimization by simulated Darwinian evolution: a polynomial time algorithm for the Traveling Salesman Problem. Biological Cybernetics, 1991, 65, 31-35.	1.3	41

#	ARTICLE	IF	CITATIONS
19	Markovian neural networks. Biological Cybernetics, 1991, 64, 337-342.	1.3	19
20	A study of feature-mapped approach to the multiple travelling salesmen problem. , 0, , .		9
21	Evolutionary methods for training neural networks. , 0, , .		7
22	THE EVOLUTION OF INTELLIGENT DECISION MAKING IN GAMING. Cybernetics and Systems, 1991, 22, 223-236.	2.5	36
23	Determining neural network connectivity using evolutionary programming. , 0, , .		6
24	Can rats solve a simple version of the traveling salesman problem?. Behavioural Brain Research, 1992, 52, 133-142.	2.2	32
25	Using evolutionary programming for modeling: an ocean acoustic example. IEEE Journal of Oceanic Engineering, 1992, 17, 333-340.	3.8	9
26	A new relaxation algorithm and passive sensor data association. IEEE Transactions on Automatic Control, 1992, 37, 198-213.	5.7	222
27	Understanding and using genetic algorithms Part 1. Concepts, properties and context. Chemometrics and Intelligent Laboratory Systems, 1993, 19, 1-33.	3.5	265
28	New evolutionary genetic algorithms for NP-complete combinatorial optimization problems. Biological Cybernetics, 1993, 69, 229-234.	1.3	32
29	Optimization by hierarchical mutant production. Biological Cybernetics, 1993, 69, 493-501.	1.3	9
30	Genetic algorithms for the traveling salesman problem based on a heuristic crossover operation. Biological Cybernetics, 1993, 69, 539-546.	1.3	17
31	An empirical study of genetic operators in genetic algorithms. Microprocessing and Microprogramming, 1993, 38, 707-714.	0.2	82
32	Evolutionary programming for ASAT battle management. , 0, , .		1
33	APPLYING EVOLUTIONARY PROGRAMMING TO SELECTED TRAVELING SALESMAN PROBLEMS. Cybernetics and Systems, 1993, 24, 27-36.	2.5	208
34	A new optimizer for the facility layout problem. , 0, , .		5
35	Evolving Behaviors in the Iterated Prisoner's Dilemma. Evolutionary Computation, 1993, 1, 77-97.	3.0	208
36	Evolving neural network connectivity. , 0, , .		9

#	ARTICLE	IF	CITATIONS
37	Application of genetic algorithms to the problem of free-routing for aircraft. , 0, , .		3
38	Applying evolutionary programming to selected control problems. Computers and Mathematics With Applications, 1994, 27, 89-104.	2.7	45
39	A guided evolutionary simulated annealing approach to the quadratic assignment problem. IEEE Transactions on Systems, Man, and Cybernetics, 1994, 24, 1383-1386.	0.9	29
40	An empirical comparison of selection methods in evolutionary algorithms. Lecture Notes in Computer Science, 1994, , 80-94.	1.3	68
41	Evolving recurrent perceptrons for time-series modeling. IEEE Transactions on Neural Networks, 1994, 5, 24-38.	4.2	115
42	Using the quality-time tradeoff in local optimization. , 0, , .		2
43	Customer-Focused Manufacturing in the Switching Systems Business Unit. At&T Technical Journal, 1994, 73, 62-70.	0.3	1
44	Notes on the simulation of evolution. IEEE Transactions on Neural Networks, 1994, 5, 130-147.	4.2	59
45	Evolutionary Programming. , 1994, , .		19
46	Combinatorial optimization with use of guided evolutionary simulated annealing. IEEE Transactions on Neural Networks, 1995, 6, 290-295.	4.2	119
48	An introduction to evolutionary programming. Lecture Notes in Computer Science, 1996, , 21-33.	1.3	22
49	Emergent search on double circle TSPs using subgour exchange crossover. , 0, , .		13
50	Design of discrete coefficient FIR filters by simulated evolution. IEEE Signal Processing Letters, 1996, 3, 137-140.	3.6	17
51	Optimal path generation of a redundant manipulator with evolutionary programming. , 0, , .		2
52	Optimal trajectory planning of a redundant manipulator using evolutionary programming. , 0, , .		1
53	Hybrid evolutionary programming for heavily constrained problems. BioSystems, 1996, 38, 29-43.	2.0	41
54	A combined evolutionary algorithm for real parameters optimization. , 0, , .		16
55	Modal Parameter Identification Using Simulated Evolution. AIAA Journal, 1997, 35, 1204-1208.	2.6	11

#	ARTICLE	IF	CITATIONS
57	An empirical comparison of simulated annealing and genetic algorithms on NK fitness landscapes. , 0, , .		2
59	Evolutionary computation: comments on the history and current state. IEEE Transactions on Evolutionary Computation, 1997, 1, 3-17.	10.0	1,157
60	Mathematical improvement of the Hopfield model for TSP feasible solutions by synapse dynamical systems. Neurocomputing, 1997, 15, 15-43.	5.9	11
61	Artificial intelligence approaches to network management: recent advances and a survey. Computer Communications, 1997, 20, 1313-1322.	5.1	33
62	Network restoration using recurrent neural networks. International Journal of Network Management, 1998, 8, 264-273.	2.2	0
63	Class scheduling algorithms for Navy training schools. Naval Research Logistics, 1998, 45, 533-551.	2.2	5
64	State-space search strategies gleaned from animal behavior: a traveling salesman experiment. Biological Cybernetics, 1998, 78, 167-173.	1.3	20
65	Pattern recognition using evolution algorithms with fast simulated annealing. Pattern Recognition Letters, 1998, 19, 403-413.	4.2	11
66	Mathematical improvement of the Hopfield model for feasible solutions to the traveling salesman problem by a synapse dynamical system. IEEE Transactions on Systems, Man, and Cybernetics, 1998, 28, 906-919.	5.0	4
67	A mathematical framework for solving dynamic optimization problems with adaptive networks. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 1998, 28, 404-416.	2.9	7
68	Inver-over operator for the TSP. Lecture Notes in Computer Science, 1998, , 803-812.	1.3	113
69	Preying on optima: a predatory search strategy for combinatorial problems. , 0, , .		10
70	A new heuristic evolutionary programming and its application in solution of the optimal power flow. I. Primary principle of heuristic evolutionary programming. , 0, , .		0
71	Unearthing a Fossil from the History of Evolutionary Computation. Fundamenta Informaticae, 1998, 35, 1-16.	0.4	22
72	A preliminary investigation into evolving modular finite state machines. , 0, , .		23
73	Evolving nonlinear time-series models using evolutionary programming. , 0, , .		8
74	Simulated Evolution and Learning. Lecture Notes in Computer Science, 1999, , .	1.3	0
75	Velocity inversion in cross-hole seismic tomography by counter-propagation neural network, genetic algorithm and evolutionary programming techniques. Geophysical Journal International, 1999, 138, 108-124.	2.4	24

#	ARTICLE	IF	CITATIONS
76	Genetic Algorithms for the Travelling Salesman Problem: A Review of Representations and Operators. Artificial Intelligence Review, 1999, 13, 129-170.	15.7	612
77	A neural network theory for constrained optimization. Neurocomputing, 1999, 24, 117-161.	5.9	5
78	Solving dynamic optimization problems with adaptive networks. Neurocomputing, 1999, 25, 19-38.	5.9	2
79	Applying evolutionary programming to robust control systems design and analysis. , 0, , .		2
80	Evolutionary Computation in Structural Design. Engineering With Computers, 2000, 16, 275-286.	6.1	30
81	EFFICIENCY OF MODIFIED GENETIC ALGORITHMS ON TWO-DIMENSIONAL SYSTEM. International Journal of Modern Physics C, 2000, 11, 593-605.	1.7	2
82	Application of evolutionary computation to aircraft control law design. , 0, , .		1
83	An automata network for performing combinatorial optimization. Neurocomputing, 2002, 47, 59-83.	5.9	11
84	Evolutionary programming techniques for economic load dispatch. IEEE Transactions on Evolutionary Computation, 2003, 7, 83-94.	10.0	1,020
85	Non-additive fuzzy regression applied to establish flexible pavement present serviceability index. , 0, , .		4
86	Evolutionary Computation. , 2003, , 27-53.		1
87	Using adaptive operator scheduling on problem domains with an operator manifold: applications to the travelling salesman problem. , 0, , .		0
88	Solving traveling salesman problems by genetic algorithms*. Progress in Natural Science: Materials International, 2003, 13, 135-141.	4.4	10
89	Towards the Exact Minimization of BDDsâ€™ An Elitism-Based Distributed Evolutionary Algorithm. Journal of Heuristics, 2004, 10, 337-355.	1.4	2
90	Evolutionary algorithms, Markov decision processes, adaptive critic designs, and clustering: commonalities, hybridization, and performance. , 0, , .		7
91	Solving the Vehicle Routing Problem by Using Cellular Genetic Algorithms. Lecture Notes in Computer Science, 2004, , 11-20.	1.3	60
92	How to Solve It: Modern Heuristics. , 2004, , .		388
93	Overcoming Representation Issues when Including Aesthetic Criteria in Evolutionary Design. , 2005, , 1.		10

#	ARTICLE	IF	CITATIONS
94	EXPERT SYSTEMS WITH APPLICATIONS. Expert Systems With Applications, 2005, 28, 187-188.	7.6	12
95	Computer Simulation of Natural Evolution. , 0, , 59-103.		1
96	Simulation and Optimization of an Alternative Approach to Power Electronics Structures for Comfort Electronics in Passenger Vehicles. , 2005, , .		0
97	Optimization of large scale power electronic structures for comfort electronics in passenger vehicles. , 2005, , .		0
99	Computing nine new best-so-far solutions for Capacitated VRP with a cellular Genetic Algorithm. Information Processing Letters, 2006, 98, 225-230.	0.6	73
100	Integrating aesthetic criteria with evolutionary processes in complex, free-form design “ an initial investigation. , 0, , .		12
101	Multi-objective analysis of a component-based representation within an interactive evolutionary design system. Engineering Optimization, 2007, 39, 591-613.	2.6	10
102	Supporting free-form design using a component based representation. , 2007, , .		0
103	Enabling generative behavior within an interactive evolutionary design system using a component-based representation. , 2007, , .		2
104	Study on a novel genetic algorithm for the combinatorial optimization problem. , 2007, , .		1
105	A cost benefit operator for efficient multi level genetic algorithm searches. , 2007, , .		0
106	Imperialist competitive algorithm: An algorithm for optimization inspired by imperialistic competition. , 2007, , .		1,495
107	System gains configuration and coordination of redundant degrees of freedom by genetic algorithms for multi-axis machine system in manufacturing. Computers and Industrial Engineering, 2007, 52, 355-379.	6.3	4
108	Hybrid genetic models based on recombination of allele permutations based on shift and rotations for DHCP. , 2008, , .		3
109	Equivalence of probabilistic tournament and polynomial ranking selection. , 2008, , .		7
111	Genetic Programming. Lecture Notes in Computer Science, 2009, , .	1.3	1
112	Multidimensional statistical analysis of the parameterization of a genetic algorithm for the optimal ordering of tables. Expert Systems With Applications, 2010, 37, 804-815.	7.6	4
113	Natural computation: evolving solutions to complex problems. , 0, , 213-233.		0

#	ARTICLE	IF	CITATIONS
116	Cuckoo Optimization Algorithm. Applied Soft Computing Journal, 2011, 11, 5508-5518.	7.2	921
117	Development a new mutation operator to solve the Traveling Salesman Problem by aid of Genetic Algorithms. Expert Systems With Applications, 2011, 38, 1313-1320.	7.6	168
118	Permutational Genetic Algorithm for the Optimized Assignment of Priorities to Tasks and Messages in Distributed Real-Time Systems. , 2011, , .		17
119	A new metric to measure distances between solutions to the Quadratic Assignment Problem. , 2011, , .		3
120	A hybrid evolutionary algorithm for the resource-constrained project scheduling problem. Artificial Life and Robotics, 2012, 17, 312-316.	1.2	4
121	An agent-based model for biomorphic software systems. , 2012, , .		0
122	A transgenic algorithm for the Vehicle Routing Problem with Time Windows. , 2012, , .		1
123	Real-time scheduling of twin stacking cranes in an automated container terminal using a genetic algorithm. , 2012, , .		9
124	Unsupervised fuzzy clustering-based genetic algorithms to Traveling Salesman Problem. , 2012, , .		4
125	An empirical study of permutational genetic crossover and mutation operators on the fixed priority assignment in distributed real-time systems. , 2012, , .		0
126	Tackling the rank aggregation problem with evolutionary algorithms. Applied Mathematics and Computation, 2013, 222, 632-644.	2.2	37
127	Dynamic approach to solve the daily drayage problem with transit time uncertainty. Computers in Industry, 2013, 64, 165-175.	9.9	37
128	Improving differential evolution through a unified approach. Journal of Global Optimization, 2013, 55, 771-799.	1.8	76
130	A novel genetic algorithm to solve travelling salesman problem and blocking flow shop scheduling problem. International Journal of Bio-Inspired Computation, 2013, 5, 303.	0.9	20
132	Crossover versus Mutation: A Comparative Analysis of the Evolutionary Strategy of Genetic Algorithms Applied to Combinatorial Optimization Problems. Scientific World Journal, The, 2014, 2014, 1-22.	2.1	16
133	Benchmarking Optimization Algorithms: An Open Source Framework for the Traveling Salesman Problem. IEEE Computational Intelligence Magazine, 2014, 9, 40-52.	3.2	62
134	A hybrid development platform for evolutionary multi-objective optimization. , 2015, , .		5
135	An Investigation of Hybrid Tabu Search for the Traveling Salesman Problem. Communications in Computer and Information Science, 2015, , 523-537.	0.5	7



#	ARTICLE	IF	CITATIONS
136	Generating Human-readable Algorithms for the Travelling Salesman Problem using Hyper-Heuristics. , 2015, , .		11
137	Local search for the Traveling Salesman Problem: A comparative study. , 2015, , .		17
138	A hybrid heuristic algorithm for the Euclidean traveling salesman problem. , 2015, , .		5
140	Metaheuristic Algorithms for the Quadratic Assignment Problem: Performance and Comparison. Topics in Intelligent Engineering and Informatics, 2015, , 171-190.	0.4	0
141	Sequencing optimisation for makespan improvement at wet-etch tools. Computers and Operations Research, 2015, 53, 261-274.	4.0	4
142	Acquisition of business intelligence from human experience in route planning. Enterprise Information Systems, 2015, 9, 303-323.	4.7	7
143	Iterative Cartesian Genetic Programming: Creating General Algorithms for Solving Travelling Salesman Problems. Lecture Notes in Computer Science, 2016, , 294-310.	1.3	8
145	Identification of Water Diffusivity of Inorganic Porous Materials Using Evolutionary Algorithms. Transport in Porous Media, 2016, 113, 51-66.	2.6	4
146	Using metaheuristic algorithms for parameter estimation in generalized Mallows models. Applied Soft Computing Journal, 2016, 38, 308-320.	7.2	13
147	Experimental analysis of crossover and mutation operators on the quadratic assignment problem. Annals of Operations Research, 2016, 247, 833-851.	4.1	10
148	Improvement of Drug Delivery Routes Through the Adoption of Multi-Operator Evolutionary Algorithms and Intelligent Vans Capable of Reporting Real-Time Incidents. IEEE Transactions on Automation Science and Engineering, 2017, 14, 1009-1019.	5.2	11
149	A feature selection model based on genetic rank aggregation for text sentiment classification. Journal of Information Science, 2017, 43, 25-38.	3.3	300
150	A new multiple seeds based genetic algorithm for discovering a set of interesting Boolean association rules. Expert Systems With Applications, 2017, 74, 55-69.	7.6	31
151	The Problem Aware Local Search algorithm: an efficient technique for permutation-based problems. Soft Computing, 2017, 21, 5193-5206.	3.6	3
152	Weighted aggregation of partial rankings using Ant Colony Optimization. Neurocomputing, 2017, 250, 109-120.	5.9	9
154	Memetic algorithm based on marriage in honey bees optimization for flexible job shop scheduling problem. Memetic Computing, 2017, 9, 295-309.	4.0	23
155	A hybrid evolutionary approach for the single-machine total weighted tardiness problem. Computers and Industrial Engineering, 2017, 108, 70-80.	6.3	11
156	Combining two local searches with crossover. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
157	Instance-based algorithm selection on quadratic assignment problem landscapes. , 2017, , .		7
158	PlatEMO: A MATLAB Platform for Evolutionary Multi-Objective Optimization [Educational Forum]. IEEE Computational Intelligence Magazine, 2017, 12, 73-87.	3.2	1,366
159	Minimizing Weld Variation Effects Using Permutation Genetic Algorithms and Virtual Locator Trimming. , 2017, , .		1
160	Trajectory optimization of a satellite for multiple active space debris removal based on a method for the traveling serviceman problem. , 2017, , .		7
164	Is Evolutionary Computation Evolving Fast Enough?. IEEE Computational Intelligence Magazine, 2018, 13, 42-51.	3.2	7
165	A Generalized Optimization Framework for Score Aggregation in Person Re-identification Systems. , 2018, , .		1
166	Solution to travelling salesman problem by clusters and a modified multi-restart iterated local search metaheuristic. PLoS ONE, 2018, 13, e0201868.	2.5	21
167	Minimizing Weld Variation Effects Using Permutation Genetic Algorithms and Virtual Locator Trimming. Journal of Computing and Information Science in Engineering, 2018, 18, .	2.7	7
168	Adaptive meta-heuristic algorithms for flexible supply chain network design problem with different delivery modes. Computers and Industrial Engineering, 2019, 138, 106107.	6.3	13
169	A Branch-and-Bound-Based Crossover Operator for the Traveling Salesman Problem. International Journal of Cognitive Informatics and Natural Intelligence, 2019, 13, 1-18.	0.4	2
170	Framework of Evolutionary Algorithm for Investigation of Influential Nodes in Complex Networks. IEEE Transactions on Evolutionary Computation, 2019, 23, 1049-1063.	10.0	26
171	Application of a variable neighborhood search algorithm to a fleet size and mix vehicle routing problem with electric modular vehicles. Computers and Industrial Engineering, 2019, 130, 537-550.	6.3	48
172	Routing Sales Territory by Solving a TSP Variant with Genetic Algorithm in a Multi-constraint and Complicated Real-world Application. , 2019, , .		0
173	Routing Sales Territory by Solving a Multi-objective TSP Variant with Evolutionary Algorithms. , 2019, , .		2
174	Modified symbiotic organisms search for structural optimization. Engineering With Computers, 2019, 35, 1269-1296.	6.1	68
175	A novel ICA-based clustering algorithm for heart arrhythmia diagnosis. Pattern Analysis and Applications, 2019, 22, 285-297.	4.6	5
176	A discrete tree-seed algorithm for solving symmetric traveling salesman problem. Engineering Science and Technology, an International Journal, 2020, 23, 879-890.	3.2	32
177	Models and algorithms for the Traveling Salesman Problem with Time-dependent Service times. European Journal of Operational Research, 2020, 283, 825-843.	5.7	18

#	ARTICLE	IF	CITATIONS
178	Techniques for Accelerating Multi-Objective Evolutionary Algorithms in PlatEMO. , 2020, , .		3
179	Hybrid adaptive simplified human learning optimization algorithms for supply chain network design problem with possibility of direct shipment. Applied Soft Computing Journal, 2020, 96, 106594.	7.2	14
180	Performance of Space Debris Removal Satellite Considering Total Thrust by Evolutionary Algorithm. , 2020, , .		1
181	Improving an Optical Flow Estimator Inspired by Insect Biology using Adaptive Genetic Algorithms. , 2020, , .		3
182	A polynomial-time deterministic approach to the travelling salesperson problem. International Journal of Parallel, Emergent and Distributed Systems, 2020, 35, 454-460.	1.0	1
183	A crossover operator for improving the efficiency of permutation-based genetic algorithms. Expert Systems With Applications, 2020, 151, 113381.	7.6	38
184	Explainable Interactive Evolutionary Multiobjective Optimization. SSRN Electronic Journal, 0, , .	0.4	7
185	Solving Order Batching/Picking Problems with an Evolutionary Algorithm. Communications in Computer and Information Science, 2021, , 177-186.	0.5	1
186	Teaching a learning-based genetic algorithm (TLBGA): an improved solution method for continuous optimization problems. International Journal of Systems Assurance Engineering and Management, 2021, 12, 1362-1384.	2.4	10
187	Exam Seating Allocation to Prevent Malpractice Using Genetic Multi-optimization Algorithm. Communications in Computer and Information Science, 2021, , 131-145.	0.5	2
188	Using Evolutionary Programming to Optimize the Allocation of Surveillance Assets. Lecture Notes in Computer Science, 1999, , 215-222.	1.3	3
189	An Overview of Evolutionary Programming. The IMA Volumes in Mathematics and Its Applications, 1999, , 89-109.	0.5	29
190	An Overview of Evolutionary Algorithms in Management Applications. , 1995, , 44-97.		14
192	STRUCTURAL OPTIMIZATION USING EVOLUTIONARY COMPUTATION. , 2007, , 59-119.		2
193	Tuning genetic algorithm parameters using design of experiments. , 2020, , .		11
194	An Indexed Bibliography of Genetic Algorithms. , 1995, , .		29
196	Fundamental Concepts of Evolutionary Computation. , 1997, , .		5
197	Automatic Combination of Operators in a Genetic Algorithm to Solve the Traveling Salesman Problem. PLoS ONE, 2015, 10, e0137724.	2.5	36

#	ARTICLE	IF	CITATIONS
198	Five Objective Optimization Using Non-dominated & Sorting Genetic Algorithm (NSGA) for Green Microalgae Culture Conditions for Biodiesel Production. Recent Innovations in Chemical Engineering, 2019, 12, 110-121.	0.4	2
200	Human-Centric Evolutionary Systems in Design and Decision-Making. , 2007, , 395-411.		2
201	Evolutionary Computation and Visualisation as Decision Support Tools for Conceptual Building Design. Computational Science, Engineering and Technology Series, 0, , 49-74.	0.2	2
202	Many-Qudit Representation for the Travelling Salesman Problem Optimisation. Journal of the Physical Society of Japan, 2021, 90, 114002.	1.6	4
205	An Algorithm for Generating an Optimal Laser-Torch Path to Cut Multiple Parts with Their Own Set of Sub-Parts Inside. Journal of Control Automation and Systems Engineering, 2005, 11, 802-809.	0.1	0
206	Das Stuttgarter Unternehmensmodell in der Theorie. , 2008, , 67-201.		1
207	Evolution of Inductive Self-organizing Networks. Studies in Computational Intelligence, 2008, , 109-128.	0.9	1
208	On the Effectiveness of Evolution Compared to Time-Consuming Full Search of Optimal 6-State Automata. Lecture Notes in Computer Science, 2009, , 280-291.	1.3	4
209	Human-Centric Evolutionary Systems in Design and Decision-Making. , 2009, , 376-392.		0
210	A Comparison of Recombination Operators for Capacitate Vehicle Routing Problem. Inteligencia Artificial, 2010, 14, .	0.8	2
211	Problem Solving and Evolutionary Computation. , 2014, , 69-109.		0
213	Emergent collective computational abilities in interacting particle systems. Lecture Notes in Computer Science, 1995, , 61-72.	1.3	0
214	An Evolutionary Programming Approach to Self-Adaptation on Finite State Machines. , 1995, , 355-366.		19
215	Evolutionary Computation Models. , 1997, , .		2
216	Evolutionäre Programmierung. , 1997, , 195-216.		1
217	Multi-Objective Path Optimization of a Satellite for Multiple Active Space Debris Removal Based on a Method for the Travelling Serviceman Problem. Advances in Science, Technology and Engineering Systems, 2018, 3, 479-488.	0.5	1
218	Simulation and Artificial Life. , 2018, , 17-38.		0
219	Basic Evolutionary Approach to the Traveling Salesman Problem. U Porto Journal of Engineering, 2015, 1, 30-38.	0.4	0

#	ARTICLE	IF	CITATIONS
220	Optimization of the Collaborative Hub Location Problem with Metaheuristics. Mathematics, 2021, 9, 2759.	2.2	6
222	Optimization by hierarchical mutant production. Biological Cybernetics, 1993, 69, 493-501.	1.3	4
223	Genetic algorithms for the traveling salesman problem based on a heuristic crossover operation. Biological Cybernetics, 1993, 69, 539-546.	1.3	0
224	Preface to the first edition (1995). , 0, , ix-xi.		1
225	Different Meta-Heuristic Optimization Techniques and Their Application in Solar Photovoltaic Field. Advances in Environmental Engineering and Green Technologies Book Series, 2022, , 1-37.	0.4	0
226	ACO Inspired GA Mutation Applied to the TSP. Advances in Intelligent Systems and Computing, 2022, , 95-107.	0.6	1
228	Formation of Fuzzy Patterns in Logical Analysis of Data Using a Multi-Criteria Genetic Algorithm. Symmetry, 2022, 14, 600.	2.2	5
229	A Greedy Approach to Ant Colony Optimisation Inspired Mutation for Permutation Type Problems. , 2021, , .		4
230	A Hierarchical Simple Probabilistic Population-Based Algorithm Applied to the Dynamic TSP. , 2021, , .		2
233	Modified metaheuristic algorithms to design a closed-loop supply chain network considering quantity discount and fixed-charge transportation. Expert Systems With Applications, 2022, 202, 117364.	7.6	10
234	Network restoration using recurrent neural networks. International Journal of Network Management, 1998, 8, 264-273.	2.2	0
235	Accelerating genetic algorithm evolution via ant-based mutation and crossover for application to large-scale TSPs. , 2022, , .		1
236	Local-Diversity Evaluation Assignment Strategy for Decomposition-Based Multiobjective Evolutionary Algorithm. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2023, 53, 1697-1709.	9.3	0
237	Biosphere-Technosphere Transformations: Thirty Workable Resolutions. , 2022, , 313-447.		0
238	Design of HIFU Treatment Plans Using Thermodynamic Equilibrium Algorithm. Algorithms, 2022, 15, 399.	2.1	0
239	A Game-Theoretic Approach for the Robust Daily Aircraft Routing Problem. Journal of Mathematics, 2022, 2022, 1-13.	1.0	1
240	A novel coevolutionary multi-objective particle swarm optimization based on decomposition. Evolutionary Intelligence, 0, , .	3.6	0
241	Artificial Bee Colony with Crossover Operations for Discrete Problems. Engineering, Technology & Applied Science Research, 2022, 12, 9510-9514.	1.9	0

#	ARTICLE	IF	CITATIONS
242	Tagging Metaheuristics with Problem-Oriented Labels for Non-Expert Users. , 2022, , .		2
243	Multicriterial genetic algorithm for pattern generation as a stage of logical analysis of data. AIP Conference Proceedings, 2023, , .	0.4	0
244	An adaptive variance vector-based evolutionary algorithm for large scale multi-objective optimization. Neural Computing and Applications, 2023, 35, 16357-16379.	5.6	0
245	Explainable interactive evolutionary multiobjective optimization. Omega, 2024, 122, 102925.	5.9	2
246	MOEAs Are Stuck in a Different Area at a Time. , 2023, , .		0
247	TSP review: performance comparison of the well-known methods on a standardized dataset. , 2023, , .		0
249	A Permutation Group-Based Evolutionary Algorithm for Car Sequencing Problems in Assembly Lines. , 2023, , .		0
250	Research on traveling salesman problem based on diffusion Monte Carlo method. , 2024, , .		0