Giovanni Iacca

List of Publications by Year
in descending order

96 papers	**1,682** citations	471509 **17** h-index	345221 **36** g-index
100 all docs	**100** docs citations	**100** times ranked	**1244** citing authors

#	Article	IF	Citations
1	Cluster-centroid-based mutation strategies for Differential Evolution. Soft Computing, 2022, 26, 1889-1921.	3.6	1
2	On the use of single non-uniform mutation in lightweight metaheuristics. Soft Computing, 2022, 26, 2259-2275.	3.6	3
3	Evolutionary Optimization of Spiking Neural P Systems for Remaining Useful Life Prediction. Algorithms, 2022, 15, 98.	2.1	7
4	Optimizing the Sensory Apparatus of Voxel-Based Soft Robots Through Evolution and Babbling. SN Computer Science, 2022, 3, 1.	3.6	5
5	Neuroevolution of Spiking Neural P Systems. Lecture Notes in Computer Science, 2022, , 435-451.	1.3	1
6	Multi-objective Optimization of Extreme Learning Machine for Remaining Useful Life Prediction. Lecture Notes in Computer Science, 2022, , 191-206.	1.3	4
7	An improved Jaya optimization algorithm with LÃ©vy flight. Expert Systems With Applications, 2021, 165, 113902.	7.6	92
8	Distributed embodied evolution over networks. Applied Soft Computing Journal, 2021, 101, 106993.	7.2	4
9	Evolving Plasticity for Autonomous Learning under Changing Environmental Conditions. Evolutionary Computation, 2021, 29, 391-414.	3.0	5
10	Beyond Body Shape and Brain: Evolving the Sensory Apparatus of Voxel-Based Soft Robots. Lecture Notes in Computer Science, 2021, , 210-226.	1.3	10
11	Genetic Improvement of Routing Protocols for Delay Tolerant Networks. ACM Transactions on Evolutionary Learning, 2021, 1, 1-37.	3.5	3
12	Seeking quality diversity in evolutionary co-design of morphology and control of soft tensegrity modular robots. , 2021, , .		12
13	A signal-centric perspective on the evolution of symbolic communication. , 2021, , .		1
14	Evo-RL. , 2021, , .		10
15	Genetic improvement of routing in delay tolerant networks. , 2021, , .		0
16	Black-box adversarial attacks using evolution strategies. , 2021, , .		7
17	Graph-aware evolutionary algorithms for influence maximization. , 2021, , .		3
18	An evolutionary framework for maximizing influence propagation in social networks. Software Impacts, 2021, 9, 100107.	1.4	5

#	Article	IF	Citations
19	Evolutionary neural architecture search for remaining useful life prediction. Applied Soft Computing Journal, 2021, 108, 107474.	7.2	31
20	A compact compound sinusoidal differential evolution algorithm for solving optimisation problems in memory-constrained environments. Expert Systems With Applications, 2021, 186, 115705.	7.6	7
21	Promoting Behavioral Diversity via Multi-Objective/Quality-Diversity Novelty Producing Synaptic Plasticity. , 2021, , .		0
22	Morphological evolution for pipe inspection using Robot Operating System (ROS). Materials and Manufacturing Processes, 2020, 35, 714-724.	4.7	10
23	A GPU-Enabled Compact Genetic Algorithm for Very Large-Scale Optimization Problems. Mathematics, 2020, 8, 758.	2.2	5
24	A MIMD Interpreter for Genetic Programming. Lecture Notes in Computer Science, 2020, , 645-658.	1.3	6
25	Re-sampled inheritance compact optimization. Knowledge-Based Systems, 2020, 208, 106416.	7.1	7
26	Multi-Head CNN-LSTM with Prediction Error Analysis for Remaining Useful Life Prediction. , 2020, , .		18
27	The SOS Platform: Designing, Tuning and Statistically Benchmarking Optimisation Algorithms. Mathematics, 2020, 8, 785.	2.2	17
28	A Genetic Approach to the Ethical Knob. Frontiers in Artificial Intelligence and Applications, 2020, , .	0.3	1
29	Evolving Instinctive Behaviour in Resource-Constrained Autonomous Agents Using Grammatical Evolution. Lecture Notes in Computer Science, 2020, , 369-383.	1.3	4
30	Simulation-Driven Multi-objective Evolution for Traffic Light Optimization. Lecture Notes in Computer Science, 2020, , 100-116.	1.3	1
31	Novelty producing synaptic plasticity. , 2020, , .		1
32	Evolutionary optimization of Drone Trajectories Based on Optimal Reciprocal Collision Avoidance. , 2020, , .		2
33	On the use of evolutionary algorithms for localization and mapping: Infrastructure monitoring in smart cities via miniaturized autonomous sensory agents. , 2019, , 215-237.		0
34	Evaluating MAP-Elites on constrained optimization problems. , 2019, , .		6
35	Learning with delayed synaptic plasticity. , 2019, , .		4
36	A comparison of three differential evolution strategies in terms of early convergence with different population sizes. AIP Conference Proceedings, 2019, , .	0.4	10

#	Article	IF	Citations
37	Improving (1+1) covariance matrix adaptation evolution strategy: A simple yet efficient approach. AIP Conference Proceedings, 2019, , .	0.4	8
38	Compact Optimization Algorithms with Re-Sampled Inheritance. Lecture Notes in Computer Science, 2019, , 523-534.	1.3	8
39	Regularized Evolutionary Algorithm for Dynamic Neural Topology Search. Lecture Notes in Computer Science, 2019, , 219-230.	1.3	5
40	Limited evaluation cooperative co-evolutionary differential evolution for large-scale neuroevolution. , 2018, , .		10
41	Evaluating surrogate models for multi-objective influence maximization in social networks. , 2018, , .		4
42	Multi-strategy Differential Evolution. Lecture Notes in Computer Science, 2018, , 617-633.	1.3	6
43	Improving Multi-objective Evolutionary Influence Maximization in Social Networks. Lecture Notes in Computer Science, 2018, , 117-124.	1.3	9
44	Spatial anomaly detection in sensor networks using neighborhood information. Information Fusion, 2017, 33, 41-56.	19.1	108
45	Multi-objective Evolutionary Algorithms for Influence Maximization in Social Networks. Lecture Notes in Computer Science, 2017, , 221-233.	1.3	12
46	Large Scale Problems in Practice: The Effect of Dimensionality on the Interaction Among Variables. Lecture Notes in Computer Science, 2017, , 636-652.	1.3	15
47	Improved search methods for assessing Delay-Tolerant Networks vulnerability to colluding strong heterogeneous attacks. Expert Systems With Applications, 2017, 80, 311-322.	7.6	8
48	Energy-efficient environment mapping via evolutionary algorithm optimized multi-agent localization. , 2017, , .		2
49	Presenting the ECO: Evolutionary Computation Ontology. Lecture Notes in Computer Science, 2017, , 603-619.	1.3	5
50	A Framework for Knowledge Integrated Evolutionary Algorithms. Lecture Notes in Computer Science, 2017, , 653-669.	1.3	2
51	Gaining Insight into Quality Diversity. , 2016, , .		10
52	Influence Maximization in Social Networks with Genetic Algorithms. Lecture Notes in Computer Science, 2016, , 379-392.	1.3	55
53	Optimizing Feed-Forward Neural Network Topology by Multi-objective Evolutionary Algorithms: A Comparative Study on Biomedical Datasets. Communications in Computer and Information Science, 2016, , 53-64.	0.5	5
54	Adaptive Bi-objective Genetic Programming for Data-Driven System Modeling. Lecture Notes in Computer Science, 2016, , 248-259.	1.3	4

#	Article	IF	Citations
55	The Seamless Peer and Cloud Evolution Framework. , 2016, , .		12
56	Optimizing groups of colluding strong attackers in mobile urban communication networks with evolutionary algorithms. Applied Soft Computing Journal, 2016, 40, 416-426.	7.2	17
57	Memetic Viability Evolution for Constrained Optimization. IEEE Transactions on Evolutionary Computation, 2016, 20, 125-144.	10.0	41
58	Continuous Parameter Pools in Ensemble Differential Evolution. , 2015, , .		6
59	Ensembles of incremental learners to detect anomalies in ad hoc sensor networks. Ad Hoc Networks, 2015, 35, 14-36.	5.5	60
60	Characterizing topological bottlenecks for data delivery in CTP using simulation-based stress testing with natural selection. Ad Hoc Networks, 2015, 30, 22-45.	5.5	3
61	Black Holes and Revelations: Using Evolutionary Algorithms to Uncover Vulnerabilities in Disruption-Tolerant Networks. Lecture Notes in Computer Science, 2015, , 29-41.	1.3	2
62	A CMA-ES-based 2-stage memetic framework for solving constrained optimization problems. , 2014, , .		1
63	The tradeoffs between data delivery ratio and energy costs in wireless sensor networks. , 2014, , .		7
64	Online Fusion of Incremental Learning for Wireless Sensor Networks. , 2014, , .		5
65	The impact of topology on energy consumption for collection tree protocols: An experimental assessment through evolutionary computation. Applied Soft Computing Journal, 2014, 16, 210-222.	7.2	14
66	MULTI-STRATEGY COEVOLVING AGING PARTICLE OPTIMIZATION. International Journal of Neural Systems, 2014, 24, 1450008.	5.2	65
67	A modified Covariance Matrix Adaptation Evolution Strategy with adaptive penalty function and restart for constrained optimization. Expert Systems With Applications, 2014, 41, 7077-7094.	7.6	49
68	Real-time magnetic dipole detection with single particle optimization. Applied Soft Computing Journal, 2014, 23, 460-473.	7.2	12
69	A Multi-Objective Relative Clustering Genetic Algorithm with Adaptive Local/Global Search based on Genetic Relatedness. Lecture Notes in Computer Science, 2014, , 591-602.	1.3	2
70	A Differential Evolution Framework with Ensemble of Parameters and Strategies and Pool of Local Search Algorithms. Lecture Notes in Computer Science, 2014, , 615-626.	1.3	13
71	Distributed optimization in wireless sensor networks: an island-model framework. Soft Computing, 2013, 17, 2257-2277.	3.6	12
72	A CMA-ES super-fit scheme for the re-sampled inheritance search. , 2013, , .		26

#	Article	IF	Citations
73	Memory-saving memetic computing for path-following mobile robots. Applied Soft Computing Journal, 2013, 13, 2003-2016.	7.2	32
74	Re-sampled inheritance search: high performance despite the simplicity. Soft Computing, 2013, 17, 2235-2256.	3.6	28
75	Anomaly Detection in Sensor Systems Using Lightweight Machine Learning. , 2013, , .		16
76	Online Extreme Learning on Fixed-Point Sensor Networks. , 2013, , .		10
77	Parallel memetic structures. Information Sciences, 2013, 227, 60-82.	6.9	95
78	Compact Particle Swarm Optimization. Information Sciences, 2013, 239, 96-121.	6.9	134
79	Single particle algorithms for continuous optimization. , 2013, , .		3
80	Super-fit Multicriteria Adaptive Differential Evolution. , 2013, , .		31
81	Focusing the search: a progressively shrinking memetic computing framework. International Journal of Innovative Computing and Applications, 2013, 5, 127.	0.2	3
82	Compact Optimization. Intelligent Systems Reference Library, 2013, , 337-364.	1.2	18
83	An Evolutionary Framework for Routing Protocol Analysis in Wireless Sensor Networks. Lecture Notes in Computer Science, 2013, , 1-11.	1.3	3
84	Introducing DOWSN: Distributed optimization in wireless sensor networks. , 2012, , .		1
85	Compact Differential Evolution Light: High Performance Despite Limited Memory Requirement and Modest Computational Overhead. Journal of Computer Science and Technology, 2012, 27, 1056-1076.	1.5	35
86	The importance of being structured: A comparative study on multi stage memetic approaches. , 2012, , .		3
87	Three variants of three Stage Optimal Memetic Exploration for handling non-separable fitness landscapes. , 2012, , .		2
88	Compact Bacterial Foraging Optimization. Lecture Notes in Computer Science, 2012, , 84-92.	1.3	6
89	Noise analysis compact differential evolution. International Journal of Systems Science, 2012, 43, 1248-1267.	5.5	21
90	Ockham's Razor in memetic computing: Three stage optimal memetic exploration. Information Sciences, 2012, 188, 17-43.	6.9	126

#	Article	IF	Citations
91	Robot Base Disturbance Optimization with Compact Differential Evolution Light. Lecture Notes in Computer Science, 2012, , 285-294.	1.3	5
92	Super-fit and population size reduction in compact Differential Evolution. , 2011, , .		26
93	Global supervision for compact Differential Evolution. , 2011, , .		6
94	Ensemble strategies in Compact Differential Evolution. , 2011, , .		11
95	Composed compact differential evolution. Evolutionary Intelligence, 2011, 4, 17-29.	3.6	10
96	Disturbed Exploitation compact Differential Evolution for limited memory optimization problems. Information Sciences, 2011, 181, 2469-2487.	6.9	115