

Ricardo Hiroshi Caldeira Takahashi

List of Publications by Year in descending order

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146
papers

2,261
citations

257450

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h-index

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151
all docs

151
docs citations

151
times ranked

1826
citing authors

#	ARTICLE	IF	CITATIONS
1	An efficient and fast local search based heuristic for reel management in a production line of oil extraction pipes. Computers and Operations Research, 2022, 137, 105547.	4.0	1
2	Decision making via genetic algorithm for the utilization of leftovers. International Journal of Intelligent Systems, 2021, 36, 1746-1769.	5.7	3
3	Diversity-Driven Selection Operator for Combinatorial Optimization. Lecture Notes in Computer Science, 2021, , 178-190.	1.3	0
4	An Enhancement of the Bisection Method Average Performance Preserving Minmax Optimality. ACM Transactions on Mathematical Software, 2021, 47, 1-24.	2.9	14
5	Adjusting the Cut-Off and Maximum Pool Size in RT-qPCR Pool Testing for SARS-CoV-2. Viruses, 2021, 13, 557.	3.3	5
6	Planning on Discrete Event Systems using parallelism maximization. Control Engineering Practice, 2021, 112, 104813.	5.5	2
7	Application of Optimal Control of Infectious Diseases in a Model-Free Scenario. SN Computer Science, 2021, 2, 405.	3.6	3
8	Comparing community mobility reduction between first and second COVID-19 waves. Transport Policy, 2021, 112, 114-124.	6.6	10
9	Detection of SARS-CoV-2 through pool testing for COVID-19: an integrative review. Revista Da Sociedade Brasileira De Medicina Tropical, 2021, 54, e0276.	0.9	4
10	Online Neuro-Fuzzy Controller: Design for Robust Stability. IEEE Access, 2020, 8, 193768-193776.	4.2	2
11	Vertical social distancing policy is ineffective to contain the COVID-19 pandemic. Cadernos De Saude Publica, 2020, 36, e00084420.	1.0	27
12	Automatic Translation of Blocking Flexible Job Shop Scheduling Problems to Automata Using the Supervisory Control Theory. IFAC-PapersOnLine, 2020, 53, 89-94.	0.9	1
13	On the Convergence of Decomposition Algorithms in Many-Objective Problems. Lecture Notes in Computer Science, 2019, , 39-50.	1.3	1
14	Hybrid multicriteria algorithms applied to structural design of wireless local area networks. Applied Intelligence, 2018, 48, 3653-3671.	5.3	3
15	On the Performance Degradation of Dominance-Based Evolutionary Algorithms in Many-Objective Optimization. IEEE Transactions on Evolutionary Computation, 2018, 22, 19-31.	10.0	21
16	Reducing vaccination level to eradicate a disease by means of a mixed control with isolation. Biomedical Signal Processing and Control, 2018, 40, 83-90.	5.7	5
17	Factorization-Based Approach for Computing a Minimum Makespan Controllable Sublanguage. IFAC-PapersOnLine, 2018, 51, 19-24.	0.9	3
18	SCO-Concat: a Solution to a Planning Problem in Flexible Manufacturing Systems using Supervisory Control Theory and Optimization Techniques. Journal of Control, Automation and Electrical Systems, 2018, 29, 500-511.	2.0	2

#	ARTICLE	IF	CITATIONS
19	Multi-objective Decision in Machine Learning. Journal of Control, Automation and Electrical Systems, 2017, 28, 217-227.	2.0	6
20	Restoration of power distribution networks. , 2017, , .		1
21	A comparative study of Multiobjective Evolutionary Algorithms for Wireless Local Area Network design. , 2017, , .		4
22	Multiobjective synthesis of robust vaccination policies. Applied Soft Computing Journal, 2017, 50, 34-47.	7.2	8
23	Spatial Cluster Detection Through a Dynamic Programming Approach. , 2017, , 1-13.		0
24	Planning on Discrete Events Systems: A logical approach. , 2016, , .		4
25	Reducing Dimensionality to Improve Search in Semantic Genetic Programming. Lecture Notes in Computer Science, 2016, , 375-385.	1.3	5
26	Multicriteria transformer asset management with maintenance and planning perspectives. IET Generation, Transmission and Distribution, 2016, 10, 2087-2097.	2.5	20
27	Multiobjective planning of power distribution networks with facility location for distributed generation. Electric Power Systems Research, 2016, 141, 562-571.	3.6	24
28	Subpermutation-Based Evolutionary Multiobjective Algorithm for Load Restoration in Power Distribution Networks. IEEE Transactions on Evolutionary Computation, 2016, 20, 546-562.	10.0	28
29	An infeasibility certificate for nonlinear programming based on Pareto criticality condition. Operations Research Letters, 2016, 44, 302-306.	0.7	2
30	Control of Flexible Manufacturing Systems under model uncertainty using Supervisory Control Theory and evolutionary computation schedule synthesis. Information Sciences, 2016, 329, 491-502.	6.9	24
31	Equivalence of non-linear model structures based on Pareto uncertainty. IET Control Theory and Applications, 2015, 9, 2423-2429.	2.1	5
32	Stability Constraints for Robust Model Predictive Control. Mathematical Problems in Engineering, 2015, 2015, 1-11.	1.1	2
33	Feedback-control operators for improved Pareto-set description: Application to a polymer extrusion process. Engineering Applications of Artificial Intelligence, 2015, 38, 147-167.	8.1	4
34	Multi-objective dynamic programming for spatial cluster detection. Environmental and Ecological Statistics, 2015, 22, 369-391.	3.5	17
35	A Model for a Human Decision-Maker in a Polymer Extrusion Process. Lecture Notes in Computer Science, 2015, , 358-372.	1.3	0
36	GoldMiner: A genetic programming based algorithm applied to Brazilian Stock Market. , 2014, , .		5

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37	Multipurpose Water Reservoir Management: An Evolutionary Multiobjective Optimization Approach. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-14.	1.1	14
38	Using evolutionary algorithms for channel assignment in 802.11 networks. , 2014, , .		7
39	On a Vector Space Representation in Genetic Algorithms for Sensor Scheduling in Wireless Sensor Networks. <i>Evolutionary Computation</i> , 2014, 22, 361-403.	3.0	9
40	Robust decoupling control synthesis. , 2014, , .		3
41	A multiobjective hybrid evolutionary algorithm for robust design of distribution networks. <i>International Journal of Electrical Power and Energy Systems</i> , 2014, 63, 645-656.	5.5	15
42	INSPM: An interactive evolutionary multi-objective algorithm with preference model. <i>Information Sciences</i> , 2014, 268, 202-219.	6.9	13
43	Multiobjective optimization of MPLS-IP networks with a variable neighborhood genetic algorithm. <i>Applied Soft Computing Journal</i> , 2013, 13, 4403-4412.	7.2	3
44	Distance based NSGA-II for earliness and tardiness minimization in Parallel Machine Scheduling. , 2013, , .		3
45	Comparing Strategies to Play a 2-Sided Dominoes Game. , 2013, , .		0
46	Pareto Optimal Solutions for Stochastic Dynamic Programming Problems via Monte Carlo Simulation. <i>Journal of Applied Mathematics</i> , 2013, 2013, 1-9.	0.9	4
47	Clonal selection algorithms for task scheduling in a flexible manufacturing cell with supervisory control. , 2013, , .		2
48	A CMA stochastic differential equation approach for many-objective optimization. , 2012, , .		2
49	Risk Estimation in Spatial Disease Clusters: An RBF Network Approach. , 2012, , .		0
50	A modified NSGA-II for the Multiobjective Multi-mode Resource-Constrained Project Scheduling Problem. , 2012, , .		11
51	A faster genetic algorithm for substation location and network design of power distribution systems. , 2012, , .		5
52	Robust decoupling PI controllers for multi-loop control. , 2012, , .		1
53	Multiobjective planning of wireless local area networks (WLAN) using genetic algorithms. , 2012, , .		5
54	Multicriteria optimization with a multiobjective golden section line search. <i>Mathematical Programming</i> , 2012, 131, 131-161.	2.4	19

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55	A Hybrid Multiobjective Evolutionary Approach for Improving the Performance of Wireless Sensor Networks. IEEE Sensors Journal, 2011, 11, 545-554.	4.7	80
56	Fuzzy/Bayesian change point detection approach to incipient fault detection. IET Control Theory and Applications, 2011, 5, 539-551.	2.1	19
57	A Multicriteria Statistical Based Comparison Methodology for Evaluating Evolutionary Algorithms. IEEE Transactions on Evolutionary Computation, 2011, 15, 848-870.	10.0	36
58	Incipient fault detection in induction machine stator-winding using a fuzzy-Bayesian change point detection approach. Applied Soft Computing Journal, 2011, 11, 179-192.	7.2	45
59	Voronoi distance based prospective space-time scans for point data sets: a dengue fever cluster analysis in a southeast Brazilian town. International Journal of Health Geographics, 2011, 10, 29.	2.5	29
60	Data-driven inference for the spatial scan statistic. International Journal of Health Geographics, 2011, 10, 47.	2.5	5
61	Immune system memetic algorithm for power distribution network design with load evolution uncertainty. Electric Power Systems Research, 2011, 81, 527-537.	3.6	14
62	Multi-objective optimal multiple reservoir operation. , 2011, , .		2
63	Multiobjective Dynamic Optimization of Vaccination Campaigns Using Convex Quadratic Approximation Local Search. Lecture Notes in Computer Science, 2011, , 404-417.	1.3	8
64	Using convex quadratic approximation as a local search operator in evolutionary multiobjective algorithms. , 2011, , .		2
65	Robust H_2/H_∞ /reference model dynamic output-feedback control synthesis. International Journal of Control, 2011, 84, 2067-2080.	1.9	12
66	Variable Neighborhood Multiobjective Genetic Algorithm for the Optimization of Routes on IP Networks. Lecture Notes in Computer Science, 2011, , 433-447.	1.3	4
67	Modeling Decision-Maker Preferences through Utility Function Level Sets. Lecture Notes in Computer Science, 2011, , 550-563.	1.3	11
68	On Delaunay refinement for curved geometries. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2010, 29, 1596-1605.	0.9	4
69	Nonlinear Network Optimization – An Embedding Vector Space Approach. IEEE Transactions on Evolutionary Computation, 2010, 14, 206-226.	10.0	33
70	LMI formulation for multiobjective learning in Radial Basis Function neural networks. , 2010, , .		1
71	Multi-objective optimal reservoir operation. , 2010, , .		6
72	Multiobjective robust dynamic output-feedback control synthesis based on reference model. , 2010, , .		2

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73	Using an enhanced integer NSGA-II for solving the multiobjective Generalized Assignment Problem. , 2010, , .		11
74	An Evolutionary Dynamic Approach for Designing Wireless Sensor Networks for Real Time Monitoring. , 2010, , .		4
75	A quality metric for multi-objective optimization based on Hierarchical Clustering Techniques. , 2009, , .		5
76	Semi-supervised training of Least Squares Support Vector Machine using a multiobjective evolutionary algorithm. , 2009, , .		1
77	Robust model reduction of uncertain systems maintaining uncertainty structure. International Journal of Control, 2009, 82, 2158-2168.	1.9	15
78	A dynamic multiobjective hybrid approach for designing Wireless Sensor Networks. , 2009, , .		19
79	Continuous-space embedding genetic algorithm applied to the Degree Constrained Minimum Spanning Tree Problem. , 2009, , .		3
80	Hybrid multiobjective approach for designing wireless sensor networks. , 2009, , .		0
81	Monotonically Improving Yagi-Uda Conflicting Specifications Using the Dominating Cone Line Search Method. IEEE Transactions on Magnetics, 2009, 45, 1494-1497.	2.1	7
82	Multi-Objective Evolutionary Optimization of Biological Pest Control with Impulsive Dynamics in Soybean Crops. Bulletin of Mathematical Biology, 2009, 71, 1463-1481.	1.9	7
83	Designing a multilayer microwave heating device using a multiobjective genetic algorithm. , 2009, , .		1
84	An Open-Loop Invariant-Set Approach for Multiobjective Dynamic Programming Problems*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 283-288.	0.4	2
85	Feedback-Control Operators for Evolutionary Multiobjective Optimization. Lecture Notes in Computer Science, 2009, , 66-80.	1.3	4
86	A novel approach for robust PID synthesis for uncertain systems. Journal of Process Control, 2008, 18, 19-26.	3.3	60
87	A note on Bayesian identification of change points in data sequences. Computers and Operations Research, 2008, 35, 156-170.	4.0	7
88	Multiobjective Memetic Algorithms With Quadratic Approximation-Based Local Search for Expensive Optimization in Electromagnetics. IEEE Transactions on Magnetics, 2008, 44, 1126-1129.	2.1	28
89	Decreasing Interference in Satellite Broadband Communication Systems Using Modeled Reflector Antennas. IEEE Transactions on Magnetics, 2008, 44, 958-961.	2.1	4
90	An Immune Inspired Memetic Algorithm for power distribution system design under load evolution uncertainties. , 2008, , .		0

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91	Power distribution network expansion scheduling using dynamic programming genetic algorithm. IET Generation, Transmission and Distribution, 2008, 2, 444.	2.5	35
92	A genetic algorithm for multiobjective training of ANFIS fuzzy networks. , 2008, , .		10
93	The $\$Q\$$ -Norm Complexity Measure and the Minimum Gradient Method: A Novel Approach to the Machine Learning Structural Risk Minimization Problem. IEEE Transactions on Neural Networks, 2008, 19, 1415-1430.	4.2	28
94	Delineation of Irregularly Shaped Disease Clusters Through Multiobjective Optimization. Journal of Computational and Graphical Statistics, 2008, 17, 243-262.	1.7	40
95	Local Search with Quadratic Approximations into Memetic Algorithms for Optimization with Multiple Criteria. Evolutionary Computation, 2008, 16, 185-224.	3.0	42
96	An enhanced statistical approach for evolutionary algorithm comparison. , 2008, , .		4
97	Coordinate change operators for genetic algorithms. , 2008, , .		1
98	The Usage of Golden Section in Calculating the Efficient Solution in Artificial Neural Networks Training by Multi-objective Optimization. Lecture Notes in Computer Science, 2007, , 289-298.	1.3	6
99	Local search with quadratic approximation in Genetic Algorithms for expensive optimization problems. , 2007, , .		4
100	A new performance metric for multiobjective optimization: the integrated sphere counting. , 2007, , .		11
101	A multiobjective non-linear dynamic programming approach for optimal biological control in soy farming via NSGA-II. , 2007, , .		3
102	Projection-based local search operator for multiple equality constraints within genetic algorithms. , 2007, , .		1
103	Multiobjective parameter estimation for non-linear systems: affine information and least-squares formulation. International Journal of Control, 2007, 80, 863-871.	1.9	21
104	Hybrid genetic algorithms using quadratic local search operators. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2007, 26, 773-787.	0.9	3
105	Electric Distribution Network Expansion Under Load-Evolution Uncertainty Using an Immune System Inspired Algorithm. IEEE Transactions on Power Systems, 2007, 22, 851-861.	6.5	82
106	$\hat{\alpha}_2$ and $\hat{\alpha}_z$ -guaranteed cost computation of uncertain linear systems. IET Control Theory and Applications, 2007, 1, 201-209.	2.1	20
107	Hierarchical approach for $\hat{\alpha}_z$ robust control design: S/KS mixed sensitivity with genetic algorithm. IET Control Theory and Applications, 2007, 1, 18-24.	2.1	10
108	A preliminary comparison of tree encoding schemes for evolutionary algorithms. , 2007, , .		14

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109	New strategy for robust stability analysis of discrete-time uncertain systems. Systems and Control Letters, 2007, 56, 516-524.	2.3	13
110	A genetic algorithm for irregularly shaped spatial scan statistics. Computational Statistics and Data Analysis, 2007, 52, 43-52.	1.2	85
111	Multi-objective parameter estimation via minimal correlation criterion. Journal of Process Control, 2007, 17, 321-332.	3.3	15
112	Bi-objective Combined Facility Location and Network Design. , 2007, , 486-500.		6
113	New Approach to Robust Stability Analysis of Linear Time-Invariant Systems With Polytope-Bounded Uncertainty. IEEE Transactions on Automatic Control, 2006, 51, 1709-1714.	5.7	20
114	Multi-Objective Algorithms for Neural Networks Learning. , 2006, , 151-171.		15
115	Discussion on: "A Comparison of Sliding Mode and Unknown Input Observers for Fault Reconstruction". European Journal of Control, 2006, 12, 274-276.	2.6	0
116	H_2/H_∞ filter design for systems with polytope-bounded uncertainty. IEEE Transactions on Signal Processing, 2006, 54, 3620-3626.	5.3	52
117	Electric Distribution Network Multiobjective Design Using a Problem-Specific Genetic Algorithm. IEEE Transactions on Power Delivery, 2006, 21, 995-1005.	4.3	143
118	Sensitivity analysis applied to decision making in multiobjective evolutionary optimization. IEEE Transactions on Magnetics, 2006, 42, 1103-1106.	2.1	23
119	A multiobjective proposal for the TEAM benchmark problem 22. IEEE Transactions on Magnetics, 2006, 42, 1471-1474.	2.1	25
120	Multiobjective shape optimization of broad-band reflector antennas using the cone of efficient directions algorithm. IEEE Transactions on Magnetics, 2006, 42, 1223-1226.	2.1	19
121	Algorithm 860. ACM Transactions on Mathematical Software, 2006, 32, 609-621.	2.9	15
122	Improved optimisation approach to the robust H_2/H_∞ control problem for linear systems. IET Control Theory and Applications, 2005, 152, 171-176.	1.7	26
123	Optimal substation location and energy distribution network design using a hybrid GA-BFGS algorithm. IET Generation, Transmission and Distribution, 2005, 152, 919.	1.1	38
124	Optimise: A Computational Environment for Teaching Optimization in Electrical Engineering. IEEE Transactions on Magnetics, 2004, 40, 695-698.	2.1	2
125	Estimation of Pareto sets in the mixed control problem. International Journal of Systems Science, 2004, 35, 55-67.	5.5	23
126	Multiobjective nonlinear system identification: a case study with thyristor controlled series capacitor (TCSC). International Journal of Systems Science, 2004, 35, 537-546.	5.5	10

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127	Optimal characterization of LF magnetic field using multipoles. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 1053-1061.	0.9	4
128	The real-biased multiobjective genetic algorithm and its application to the design of wire antennas. IEEE Transactions on Magnetics, 2003, 39, 1329-1332.	2.1	37
129	A new constrained ellipsoidal algorithm for nonlinear optimization with equality constraints. IEEE Transactions on Magnetics, 2003, 39, 1289-1292.	2.1	17
130	A multiobjective methodology for evaluating genetic operators. IEEE Transactions on Magnetics, 2003, 39, 1321-1324.	2.1	53
131	NONLINEAR IDENTIFICATION USING PRIOR KNOWLEDGE OF FIXED POINTS: A MULTIOBJECTIVE APPROACH. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 1229-1246.	1.7	15
132	Improvements in genetic algorithms. IEEE Transactions on Magnetics, 2001, 37, 3414-3417.	2.1	193
133	RECENT ADVANCES IN THE MOBJ ALGORITHM FOR TRAINING ARTIFICIAL NEURAL NETWORKS. International Journal of Neural Systems, 2001, 11, 265-270.	5.2	9
134	Sensitivity analysis for optimization problems solved by stochastic methods. IEEE Transactions on Magnetics, 2001, 37, 3566-3569.	2.1	5
135	Multiobjective Weighting Selection for Optimization-Based Control Design. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2000, 122, 567-569.	1.6	3
136	Improving generalization of MLPs with multi-objective optimization. Neurocomputing, 2000, 35, 189-194.	5.9	74
137	Adaptive deep-cut method in ellipsoidal optimization for electromagnetic design. IEEE Transactions on Magnetics, 1999, 35, 1746-1749.	2.1	15
138	Discrete-time singular observers: H ₂ /H _∞ optimality and unknown inputs. International Journal of Control, 1999, 72, 481-492.	1.9	10
139	H ₂ / guaranteed cost-switching surface design for sliding modes with nonmatching disturbances. IEEE Transactions on Automatic Control, 1999, 44, 2214-2218.	5.7	25
140	Unknown Input Observers for Uncertain Systems: A Unifying Approach. European Journal of Control, 1999, 5, 261-275.	2.6	35
141	Noise Patterns in Observed Systems: From Optimal Filtering to Singular Observers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 437-442.	0.4	1
142	Discrete time sliding modes observers for induction motors. , 0, , .		6
143	â ₂ /â _z guaranteed cost PID design for uncertain systems: a multiobjective approach. , 0, , .		1
144	Decisor implementation in neural model selection by multiobjective optimization. , 0, , .		1

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145	On Nonlinear Fitness Functions for Ranking-Based Selection. , 0, , .		2
146	Synthesis and characterization of Pareto-optimal solutions for the mixed $\hat{a}, \langle /sub 2 / \hat{a}, \langle /sub \hat{z} /$ control problem. , 0, , .		0