

Carla P Gomes

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

52
papers

1,570
citations

16
h-index

39
g-index

58
ext. papers

2,034
ext. citations

8.3
avg, IF

4.38
L-index

#	Paper	IF	Citations
52	Reducing adverse impacts of Amazon hydropower expansion.. <i>Science</i> , 2022 , 375, 753-760	33.3	4
51	Density of states prediction for materials discovery via contrastive learning from probabilistic embeddings.. <i>Nature Communications</i> , 2022 , 13, 949	17.4	2
50	Strategic planning of hydropower development: balancing benefits and socioenvironmental costs. <i>Current Opinion in Environmental Sustainability</i> , 2022 , 56, 101175	7.2	2
49	Climate change may impair electricity generation and economic viability of future Amazon hydropower. <i>Global Environmental Change</i> , 2021 , 71, 102383	10.1	6
48	Materials representation and transfer learning for multi-property prediction. <i>Applied Physics Reviews</i> , 2021 , 8, 021409	17.3	10
47	Computational sustainability meets materials science. <i>Nature Reviews Materials</i> , 2021 , 6, 645-647	73.3	2
46	Automating crystal-structure phase mapping by combining deep learning with constraint reasoning. <i>Nature Machine Intelligence</i> , 2021 , 3, 812-822	22.5	6
45	Autonomous experimentation systems for materials development: A community perspective. <i>Matter</i> , 2021 , 4, 2702-2726	12.7	26
44	Autonomous materials synthesis via hierarchical active learning of nonequilibrium phase diagrams.. <i>Science Advances</i> , 2021 , 7, eabg4930	14.3	3
43	Disentangled Variational Autoencoder based Multi-Label Classification with Covariance-Aware Multivariate Probit Model 2020 ,		4
42	Optical Identification of Materials Transformations in Oxide Thin Films. <i>ACS Combinatorial Science</i> , 2020 , 22, 887-894	3.9	3
41	Computational sustainability. <i>Communications of the ACM</i> , 2019 , 62, 56-65	2.5	18
40	Reducing greenhouse gas emissions of Amazon hydropower with strategic dam planning. <i>Nature Communications</i> , 2019 , 10, 4281	17.4	58
39	Reserve design to optimize functional connectivity and animal density. <i>Conservation Biology</i> , 2019 , 33, 1023-1034	6	11
38	CRYSTAL: a multi-agent AI system for automated mapping of materials crystal structures. <i>MRS Communications</i> , 2019 , 9, 600-608	2.7	13
37	Artificial intelligence for materials discovery. <i>MRS Bulletin</i> , 2019 , 44, 538-544	3.2	25
36	Multi-component background learning automates signal detection for spectroscopic data. <i>Npj Computational Materials</i> , 2019 , 5,	10.9	11

35	Boosting Efficiency for Computing the Pareto Frontier on Tree Structured Networks. <i>Lecture Notes in Computer Science</i> , 2018 , 263-279	0.9	3
34	Efficiently Optimizing for Dendritic Connectivity on Tree-Structured Networks in a Multi-Objective Framework 2018 ,		2
33	Automated Phase Mapping with AgileFD and its Application to Light Absorber Discovery in the V-Mn-Nb Oxide System. <i>ACS Combinatorial Science</i> , 2017 , 19, 37-46	3.9	46
32	Trade-offs and efficiencies in optimal budget-constrained multispecies corridor networks. <i>Conservation Biology</i> , 2017 , 31, 192-202	6	35
31	Deep Multi-species Embedding 2017 ,		10
30	Behavior Identification in Two-Stage Games for Incentivizing Citizen Science Exploration. <i>Lecture Notes in Computer Science</i> , 2016 , 701-717	0.9	2
29	Tradeoffs in the complexity of backdoors to satisfiability: dynamic sub-solvers and learning during search. <i>Annals of Mathematics and Artificial Intelligence</i> , 2014 , 70, 399-431	0.8	7
28	The eBird enterprise: An integrated approach to development and application of citizen science. <i>Biological Conservation</i> , 2014 , 169, 31-40	6.2	449
27	Learning policies for battery usage optimization in electric vehicles. <i>Machine Learning</i> , 2013 , 92, 177-194		5
26	Learning Policies for Battery Usage Optimization in Electric Vehicles. <i>Lecture Notes in Computer Science</i> , 2012 , 195-210	0.9	4
25	Generating highly balanced sudoku problems as hard problems. <i>Journal of Heuristics</i> , 2011 , 17, 589-614	1.9	4
24	Constraint Reasoning and Kernel Clustering for Pattern Decomposition with Scaling. <i>Lecture Notes in Computer Science</i> , 2011 , 508-522	0.9	23
23	Bayesian Classification of Flight Calls with a Novel Dynamic Time Warping Kernel 2010 ,		8
22	A generative power-law search tree model. <i>Computers and Operations Research</i> , 2009 , 36, 2376-2386	4.6	
21	Backdoors to Combinatorial Optimization: Feasibility and Optimality. <i>Lecture Notes in Computer Science</i> , 2009 , 56-70	0.9	10
20	Backdoors in the Context of Learning. <i>Lecture Notes in Computer Science</i> , 2009 , 73-79	0.9	10
19	Chapter 2 Satisfiability Solvers. <i>Foundations of Artificial Intelligence</i> , 2008 , 3, 89-134		97
18	Regular-SAT: A many-valued approach to solving combinatorial problems. <i>Discrete Applied Mathematics</i> , 2007 , 155, 1613-1626	1	3

17	Structure and Problem Hardness: Goal Asymmetry and DPLL Proofs in SAT-Based Planning. <i>Logical Methods in Computer Science</i> , 2007 , 3,		2
16	Tradeoffs in the Complexity of Backdoor Detection 2007 , 256-270		16
15	Randomness and Structure. <i>Foundations of Artificial Intelligence</i> , 2006 , 2, 639-664		7
14	Statistical Regimes Across Constrainedness Regions. <i>Constraints</i> , 2005 , 10, 317-337	0.3	19
13	Approximations and Randomization to Boost CSP Techniques. <i>Annals of Operations Research</i> , 2004 , 130, 117-141	3.2	10
12	An improved approximation algorithm for the partial Latin square extension problem. <i>Operations Research Letters</i> , 2004 , 32, 479-484	1	7
11	Quality of LP-Based Approximations for Highly Combinatorial Problems. <i>Lecture Notes in Computer Science</i> , 2004 , 377-392	0.9	2
10	Randomized Backtrack Search. <i>Operations Research/ Computer Science Interfaces Series</i> , 2004 , 233-291	0.3	4
9	Computer science. Satisfied with physics. <i>Science</i> , 2002 , 297, 784-5	33.3	14
8	Extending the Reach of SAT with Many-Valued Logics. <i>Electronic Notes in Discrete Mathematics</i> , 2001 , 9, 392-407	0.3	2
7	Algorithm portfolios. <i>Artificial Intelligence</i> , 2001 , 126, 43-62	3.6	260
6	On the intersection of AI and OR. <i>Knowledge Engineering Review</i> , 2001 , 16, 1-4	2.1	2
5	Formal Models of Heavy-Tailed Behavior in Combinatorial Search. <i>Lecture Notes in Computer Science</i> , 2001 , 408-421	0.9	17
4	Artificial intelligence and operations research: challenges and opportunities in planning and scheduling. <i>Knowledge Engineering Review</i> , 2000 , 15, 1-10	2.1	22
3	Heavy-Tailed Phenomena in Satisfiability and Constraint Satisfaction Problems. <i>Journal of Automated Reasoning</i> , 2000 , 24, 67-100	1	190
2	HYBRID SEARCH STRATEGIES FOR HETEROGENEOUS SEARCH SPACES. <i>International Journal on Artificial Intelligence Tools</i> , 2000 , 09, 45-57	0.9	4
1	Heavy-tailed distributions in combinatorial search. <i>Lecture Notes in Computer Science</i> , 1997 , 121-135	0.9	62