

Jeff Clune

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.

51
papers

3,331
citations

23
h-index

54
g-index

54
ext. papers

4,511
ext. citations

8.5
avg, IF

5.92
L-index

#	Paper	IF	Citations
51	Biological underpinnings for lifelong learning machines. <i>Nature Machine Intelligence</i> , 2022 , 4, 196-210	22.5	1
50	A deep active learning system for species identification and counting in camera trap images. <i>Methods in Ecology and Evolution</i> , 2021 , 12, 150-161	7.7	28
49	First return, then explore. <i>Nature</i> , 2021 , 590, 580-586	50.4	23
48	The Surprising Creativity of Digital Evolution: A Collection of Anecdotes from the Evolutionary Computation and Artificial Life Research Communities. <i>Artificial Life</i> , 2020 , 26, 274-306	1.4	31
47	Improving the accessibility and transferability of machine learning algorithms for identification of animals in camera trap images: MLWIC2. <i>Ecology and Evolution</i> , 2020 , 10, 10374-10383	2.8	6
46	POET 2019 ,		10
45	Machine learning to classify animal species in camera trap images: Applications in ecology. <i>Methods in Ecology and Evolution</i> , 2019 , 10, 585-590	7.7	130
44	Designing neural networks through neuroevolution. <i>Nature Machine Intelligence</i> , 2019 , 1, 24-35	22.5	227
43	Safe mutations for deep and recurrent neural networks through output gradients 2018 ,		19
42	Automatically identifying, counting, and describing wild animals in camera-trap images with deep learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E5716-E5725	11.5	345
41	The Emergence of Canalization and Evolvability in an Open-Ended, Interactive Evolutionary System. <i>Artificial Life</i> , 2018 , 24, 157-181	1.4	4
40	ES is more than just a traditional finite-difference approximator 2018 ,		14
39	The Surprising Creativity of Digital Evolution 2018 ,		24
38	Diffusion-based neuromodulation can eliminate catastrophic forgetting in simple neural networks. <i>PLoS ONE</i> , 2017 , 12, e0187736	3.7	22
37	How evolution learns to generalise: Using the principles of learning theory to understand the evolution of developmental organisation. <i>PLoS Computational Biology</i> , 2017 , 13, e1005358	5	46
36	Improving HybriD: How to best combine indirect and direct encoding in evolutionary algorithms. <i>PLoS ONE</i> , 2017 , 12, e0174635	3.7	5
35	How do Different Encodings Influence the Performance of the MAP-Elites Algorithm? 2016 ,		21

34	Neuromodulation Improves the Evolution of Forward Models 2016,		5
33	Does Aligning Phenotypic and Genotypic Modularity Improve the Evolution of Neural Networks? 2016,		6
32	Evolvability Search 2016,		7
31	Curiosity Search: Producing Generalists by Encouraging Individuals to Continually Explore and Acquire Skills throughout Their Lifetime. <i>PLoS ONE</i> , 2016 , 11, e0162235	3.7	8
30	The Evolutionary Origins of Hierarchy. <i>PLoS Computational Biology</i> , 2016 , 12, e1004829	5	69
29	Identifying Core Functional Networks and Functional Modules within Artificial Neural Networks via Subsets Regression 2016,		2
28	WebAL Comes of Age: A Review of the First 21 Years of Artificial Life on the Web. <i>Artificial Life</i> , 2016 , 22, 364-407	1.4	3
27	Neural modularity helps organisms evolve to learn new skills without forgetting old skills. <i>PLoS Computational Biology</i> , 2015 , 11, e1004128	5	75
26	Innovation Engines 2015,		34
25	Robots that can adapt like animals. <i>Nature</i> , 2015 , 521, 503-7	50.4	417
24	Deep neural networks are easily fooled: High confidence predictions for unrecognizable images 2015,		811
23	Unshackling evolution. <i>ACM SIGEVOlution</i> , 2014 , 7, 11-23	0.1	36
22	Encouraging creative thinking in robots improves their ability to solve challenging problems 2014,		3
21	Evolving neural networks that are both modular and regular 2014,		26
20	Automated generation of environments to test the general learning capabilities of AI agents 2014,		1
19	Novelty search creates robots with general skills for exploration 2014,		13
18	The evolutionary origins of modularity. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013 , 280, 20122863	4.4	337
17	Unshackling evolution 2013,		99

16	Upload any object and evolve it: Injecting complex geometric patterns into CPPNS for further evolution 2013 ,		6
15	Evolving Gaits for Physical Robots with the HyperNEAT Generative Encoding: The Benefits of Simulation. <i>Lecture Notes in Computer Science</i> , 2013 , 540-549	0.9	18
14	Ontogeny tends to recapitulate phylogeny in digital organisms. <i>American Naturalist</i> , 2012 , 180, E54-63	3.7	14
13	On the Performance of Indirect Encoding Across the Continuum of Regularity. <i>IEEE Transactions on Evolutionary Computation</i> , 2011 , 15, 346-367	15.6	82
12	Selective pressures for accurate altruism targeting: evidence from digital evolution for difficult-to-test aspects of inclusive fitness theory. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011 , 278, 666-74	4.4	16
11	Evolving 3D objects with a generative encoding inspired by developmental biology. <i>ACM SIGEVolution</i> , 2011 , 5, 2-12	0.1	35
10	HybriD: A Hybridization of Indirect and Direct Encodings for Evolutionary Computation. <i>Lecture Notes in Computer Science</i> , 2011 , 134-141	0.9	6
9	Investigating whether hyperNEAT produces modular neural networks 2010 ,		24
8	The sensitivity of HyperNEAT to different geometric representations of a problem 2009 ,		25
7	Evolving coordinated quadruped gaits with the HyperNEAT generative encoding 2009 ,		61
6	Natural selection fails to optimize mutation rates for long-term adaptation on rugged fitness landscapes. <i>PLoS Computational Biology</i> , 2008 , 4, e1000187	5	70
5	How a Generative Encoding Fares as Problem-Regularity Decreases. <i>Lecture Notes in Computer Science</i> , 2008 , 358-367	0.9	14
4	Investigations in meta-GAs 2005 ,		19
3	Evolved Electrophysiological Soft Robots		24
2	Improving the accessibility and transferability of machine learning algorithms for identification of animals in camera trap images: MLWIC2		4
1	Machine learning to classify animal species in camera trap images: applications in ecology		4