

# Kenneth O Stanley

## List of Publications by Year in descending order

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Version: 2024-02-01

104  
papers

8,313  
citations

236925

25  
h-index

189892

50  
g-index

106  
all docs

106  
docs citations

106  
times ranked

3514  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolving Neural Networks through Augmenting Topologies. <i>Evolutionary Computation</i> , 2002, 10, 99-127.	3.0	2,279
2	Abandoning Objectives: Evolution Through the Search for Novelty Alone. <i>Evolutionary Computation</i> , 2011, 19, 189-223.	3.0	595
3	A Hypercube-Based Encoding for Evolving Large-Scale Neural Networks. <i>Artificial Life</i> , 2009, 15, 185-212.	1.3	557
4	Compositional pattern producing networks: A novel abstraction of development. <i>Genetic Programming and Evolvable Machines</i> , 2007, 8, 131-162.	2.2	495
5	Search-Based Procedural Content Generation: A Taxonomy and Survey. <i>IEEE Transactions on Games</i> , 2011, 3, 172-186.	1.4	412
6	Designing neural networks through neuroevolution. <i>Nature Machine Intelligence</i> , 2019, 1, 24-35.	16.0	406
7	A Taxonomy for Artificial Embryogeny. <i>Artificial Life</i> , 2003, 9, 93-130.	1.3	357
8	Evolving a diversity of virtual creatures through novelty search and local competition. , 2011, , .		230
9	Quality Diversity: A New Frontier for Evolutionary Computation. <i>Frontiers in Robotics and AI</i> , 2016, 3, .	3.2	228
10	Picbreeder: A Case Study in Collaborative Evolutionary Exploration of Design Space. <i>Evolutionary Computation</i> , 2011, 19, 373-403.	3.0	153
11	Automatic Content Generation in the <i>Galactic Arms Race</i> Video Game. <i>IEEE Transactions on Games</i> , 2009, 1, 245-263.	1.4	136
12	Revising the evolutionary computation abstraction. , 2010, , .		114
13	Autonomous Evolution of Topographic Regularities in Artificial Neural Networks. <i>Neural Computation</i> , 2010, 22, 1860-1898.	2.2	108
14	On the Performance of Indirect Encoding Across the Continuum of Regularity. <i>IEEE Transactions on Evolutionary Computation</i> , 2011, 15, 346-367.	10.0	106
15	First return, then explore. <i>Nature</i> , 2021, 590, 580-586.	27.8	103
16	Evolving content in the Galactic Arms Race video game. , 2009, , .		90
17	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.	1.3	88
18	Search-Based Procedural Content Generation. <i>Lecture Notes in Computer Science</i> , 2010, , 141-150.	1.3	83

#	ARTICLE	IF	CITATIONS
19	Confronting the Challenge of Quality Diversity. , 2015, , .		74
20	Open-Ended Evolution: Perspectives from the OEE Workshop in York. Artificial Life, 2016, 22, 408-423.	1.3	73
21	Simple Evolutionary Optimization Can Rival Stochastic Gradient Descent in Neural Networks. , 2016, , .		73
22	Born to learn: The inspiration, progress, and future of evolved plastic artificial neural networks. Neural Networks, 2018, 108, 48-67.	5.9	73
23	Generative encoding for multiagent learning. , 2008, , .		70
24	A novel generative encoding for exploiting neural network sensor and output geometry. , 2007, , .		65
25	Automatic feature selection in neuroevolution. , 2005, , .		63
26	Novelty Search and the Problem with Objectives. Genetic and Evolutionary Computation, 2011, , 37-56.	1.0	56
27	Why Greatness Cannot Be Planned. , 2015, , .		52
28	Evolving a Roving Eye for Go. Lecture Notes in Computer Science, 2004, , 1226-1238.	1.3	49
29	How novelty search escapes the deceptive trap of learning to learn. , 2009, , .		48
30	Constraining connectivity to encourage modularity in HyperNEAT. , 2011, , .		45
31	Evolvability Is Inevitable: Increasing Evolvability without the Pressure to Adapt. PLoS ONE, 2013, 8, e62186.	2.5	44
32	An Enhanced Hypercube-Based Encoding for Evolving the Placement, Density, and Connectivity of Neurons. Artificial Life, 2012, 18, 331-363.	1.3	42
33	Indirectly Encoding Neural Plasticity as a Pattern of Local Rules. Lecture Notes in Computer Science, 2010, , 533-543.	1.3	42
34	Safe mutations for deep and recurrent neural networks through output gradients. , 2018, , .		41
35	Evolving Reusable Neural Modules. Lecture Notes in Computer Science, 2004, , 69-81.	1.3	36
36	On the deleterious effects of a priori objectives on evolution and representation. , 2011, , .		36

#	ARTICLE	IF	CITATIONS
37	Effective diversity maintenance in deceptive domains. , 2013, , .		35
38	POET. , 2019, , .		30
39	Petalz: Search-Based Procedural Content Generation for the Casual Gamer. IEEE Transactions on Games, 2016, 8, 244-255.	1.4	29
40	Improving evolvability through novelty search and self-adaptation. , 2011, , .		27
41	A unified approach to evolving plasticity and neural geometry. , 2012, , .		26
42	From modulated Hebbian plasticity to simple behavior learning through noise and weight saturation. Neural Networks, 2012, 34, 28-41.	5.9	25
43	Deep neuroevolution of recurrent and discrete world models. , 2019, , .		25
44	A novel human-computer collaboration. , 2014, , .		23
45	Pareto-based evolutionary computational approach for wireless sensor placement. Engineering Applications of Artificial Intelligence, 2011, 24, 409-425.	8.1	22
46	Scalable multiagent learning through indirect encoding of policy geometry. Evolutionary Intelligence, 2013, 6, 1-26.	3.6	22
47	Towards an empirical measure of evolvability. , 2005, , .		21
48	NEAT Particles: Design, Representation, and Animation of Particle System Effects. , 2007, , .		21
49	Interactive Evolution of Particle Systems for Computer Graphics and Animation. IEEE Transactions on Evolutionary Computation, 2009, 13, 418-432.	10.0	21
50	Minimal criterion coevolution. , 2017, , .		21
51	Evolving the placement and density of neurons in the hyperneat substrate. , 2010, , .		20
52	Single-unit pattern generators for quadruped locomotion. , 2013, , .		20
53	Exploiting functional relationships in musical composition. Connection Science, 2009, 21, 227-251.	3.0	18
54	Enhancing es-hyperneat to evolve more complex regular neural networks. , 2011, , .		18

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55	ES is more than just a traditional finite-difference approximator. , 2018, , .		18
56	An Overview of Open-Ended Evolution: Editorial Introduction to the Open-Ended Evolution II Special Issue. Artificial Life, 2019, 25, 93-103.	1.3	18
57	Encouraging reactivity to create robust machines. Adaptive Behavior, 2013, 21, 484-500.	1.9	17
58	Evolving multimodal controllers with HyperNEAT. , 2013, , .		16
59	Learning to Dance through Interactive Evolution. Lecture Notes in Computer Science, 2010, , 331-340.	1.3	16
60	Interactively evolving harmonies through functional scaffolding. , 2011, , .		15
61	Confronting the challenge of learning a flexible neural controller for a diversity of morphologies. , 2013, , .		13
62	Functional Scaffolding for Composing Additional Musical Voices. Computer Music Journal, 2014, 38, 80-99.	0.1	13
63	Why Open-Endedness Matters. Artificial Life, 2019, 25, 232-235.	1.3	13
64	Evolving a Single Scalable Controller for an Octopus Arm with a Variable Number of Segments. , 2010, , 270-279.		12
65	Transfer learning through indirect encoding. , 2010, , .		10
66	Integrated Approach to Personalized Procedural Map Generation Using Evolutionary Algorithms. IEEE Transactions on Games, 2015, 7, 139-155.	1.4	10
67	Scaffolding for Interactively Evolving Novel Drum Tracks for Existing Songs. Lecture Notes in Computer Science, 2008, , 412-422.	1.3	10
68	Indirect Encoding of Neural Networks for Scalable Go. , 2010, , 354-363.		10
69	On the Critical Role of Divergent Selection in Evolvability. Frontiers in Robotics and AI, 2016, 3, .	3.2	9
70	The Emergence of Canalization and Evolvability in an Open-Ended, Interactive Evolutionary System. Artificial Life, 2018, 24, 157-181.	1.3	9
71	Evolvability ES. , 2019, , .		9
72	HyperNEAT: The First Five Years. Studies in Computational Intelligence, 2014, , 159-185.	0.9	9

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73	Integration and Evaluation of Exploration-Based Learning in Games. , 2006, , .		8
74	Multirobot Behavior Synchronization through Direct Neural Network Communication. Lecture Notes in Computer Science, 2012, , 603-614.	1.3	8
75	WebAL Comes of Age: A Review of the First 21 Years of Artificial Life on the Web. Artificial Life, 2016, 22, 364-407.	1.3	7
76	Searching for Quality Diversity When Diversity is Unaligned with Quality. Lecture Notes in Computer Science, 2016, , 880-889.	1.3	6
77	Picbreeder: Collaborative Interactive Evolution of Images. Leonardo, 2008, 41, 98-99.	0.3	5
78	Task switching in multirobot learning through indirect encoding. , 2011, , .		5
79	Guided self-organization in indirectly encoded and evolving topographic maps. , 2014, , .		5
80	Voxelbuild. , 2017, , .		5
81	Evolving neural networks for geometric game-tree pruning. , 2011, , .		4
82	Investigating Biological Assumptions through Radical Reimplementation. Artificial Life, 2015, 21, 21-46.	1.3	4
83	Art in the Sciences of the Artificial. Leonardo, 2018, 51, 165-172.	0.3	4
84	VINE. , 2018, , .		4
85	Why Evolutionary Robotics Will Matter. Studies in Computational Intelligence, 2011, , 37-41.	0.9	4
86	Evolving neural networks. , 2009, , .		3
87	Galactic Arms Race. ACM SIGEVolution, 2010, 4, 2-10.	0.5	3
88	Evolving neural networks. , 2008, , .		2
89	Generative and developmental systems. , 2008, , .		2
90	Evolving neural networks. , 2012, , .		2

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91	Altruists Proliferate Even at a Selective Disadvantage within Their Own Niche. PLoS ONE, 2015, 10, e0128654.	2.5	2
92	NeuroEvolutionary meta-optimization. , 2013, , .		1
93	Directional communication in evolved multiagent teams. , 2014, , .		1
94	Indirectly Encoding Running and Jumping Sodarace Creatures for Artificial Life. Artificial Life, 2015, 21, 432-444.	1.3	1
95	Benchmarking open-endedness in minimal criterion coevolution. , 2019, , .		1
96	Generative and developmental systems. , 2009, , .		0
97	Generative and developmental systems. , 2010, , .		0
98	Generative and developmental systems. , 2012, , .		0
99	Generative and developmental systems. , 2013, , .		0
100	Generative and developmental systems tutorial. , 2014, , .		0
101	Generative and Developmental Systems Tutorial. , 2015, , .		0
102	Generative and Developmental Systems Tutorial. , 2016, , .		0
103	Generative and developmental systems tutorial. , 2017, , .		0
104	Task switching in multirobot learning through indirect encoding. , 2011, , .		0