Arend Hintze

List of Publications by Year
in descending order

53 papers	1,588 citations	471509 17 h-index	315739 38 g-index
56 all docs	56 docs citations	56 times ranked	1975 citing authors

#	Article	IF	Citations
1	Scaling metagenome sequence assembly with probabilistic de Bruijn graphs. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13272-13277.	7.1	219
2	Evolutionary instability of zero-determinant strategies demonstrates that winning is not everything. Nature Communications, 2013, 4, 2193.	12.8	150
3	Evolution of Complex Modular Biological Networks. PLoS Computational Biology, 2008, 4, e23.	3.2	145
4	Evolutionary game theory using agent-based methods. Physics of Life Reviews, 2016, 19, 1-26.	2.8	143
5	Predator confusion is sufficient to evolve swarming behaviour. Journal of the Royal Society Interface, 2013, 10, 20130305.	3.4	111
6	Sequence dependence of isothermal DNA amplification via EXPAR. Nucleic Acids Research, 2012, 40, e87-e87.	14.5	96
7	Impact of epistasis and pleiotropy on evolutionary adaptation. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 247-256.	2.6	85
8	Integrated Information Increases with Fitness in the Evolution of Animats. PLoS Computational Biology, 2011, 7, e1002236.	3.2	84
9	Evolution of Integrated Causal Structures in Animats Exposed to Environments of Increasing Complexity. PLoS Computational Biology, 2014, 10, e1003966.	3.2	71
10	Global cell sorting in the C. elegans embryo defines a new mechanism for pattern formation. Developmental Biology, 2006, 294, 418-431.	2.0	69
11	The Evolution of Representation in Simple Cognitive Networks. Neural Computation, 2013, 25, 2079-2107.	2.2	57
12	Risk sensitivity as an evolutionary adaptation. Scientific Reports, 2015, 5, 8242.	3.3	43
13	Colored Motifs Reveal Computational Building Blocks in the C. elegans Brain. PLoS ONE, 2011, 6, e17013.	2.5	28
14	Information Content of Colored Motifs in Complex Networks. Artificial Life, 2011, 17, 375-390.	1.3	25
15	Critical Dynamics in the Evolution of Stochastic Strategies for the Iterated Prisoner's Dilemma. PLoS Computational Biology, 2010, 6, e1000948.	3.2	23
16	Evolution and stability of altruist strategies in microbial games. Physical Review E, 2012, 85, 011914.	2.1	21
17	Punishment in public goods games leads to meta-stable phase transitions and hysteresis. Physical Biology, 2015, 12, 046005.	1.8	21
18	Modularity and anti-modularity in networks with arbitrary degree distribution. Biology Direct, 2010, 5, 32.	4.6	16

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19	Thermodynamics of evolutionary games. Physical Review E, 2018, 97, 062136.	2.1	16
20	Information-Theoretic Neuro-Correlates Boost Evolution of Cognitive Systems. Entropy, 2016, 18, 6.	2.2	15
21	MABE (Modular Agent Based Evolver): A framework for digital evolution research. , 2017, , .		14
22	A genome wide dosage suppressor network reveals genomic robustness. Nucleic Acids Research, 2017, 45, 255-270.	14.5	13
23	Evolving autonomous learning in cognitive networks. Scientific Reports, 2017, 7, 16712.	3.3	12
24	Episode forecasting in bipolar disorder: Is energy better than mood?. Bipolar Disorders, 2018, 20, 470-476.	1.9	10
25	The structure of evolved representations across different substrates for artificial intelligence. , 2018, , .		8
26	The Janus face of Darwinian competition. Scientific Reports, 2015, 5, 13662.	3.3	7
27	Orthogonally Evolved AI to Improve Difficulty Adjustment in Video Games. Lecture Notes in Computer Science, 2016, , 525-540.	1.3	7
28	The reasonable effectiveness of agent-based simulations in evolutionary game theory. Physics of Life Reviews, 2016, 19, 38-42.	2.8	7
29	The Evolutionary Buffet Method. Genetic and Evolutionary Computation, 2019, , 17-36.	1.0	7
30	Evolvability Tradeoffs in Emergent Digital Replicators. Artificial Life, 2016, 22, 483-498.	1.3	5
31	Third-party mutualists have contrasting effects on host invasion under the enemy-release and biotic-resistance hypotheses. Evolutionary Ecology, 2017, 31, 829-845.	1.2	5
32	Evolved digital ecosystems: Dynamic steady state, not optimal fixed point. , 0, , .		5
33	Evolution of an artificial visual cortex for image recognition. , 0, , .		5
34	Inclusive groups can avoid the tragedy of the commons. Scientific Reports, 2020, 10, 22392.	3.3	5
35	Cryptic Information Transfer in Differently-Trained Recurrent Neural Networks. , 2020, , .		5
36	Open-Endedness for the Sake of Open-Endedness. Artificial Life, 2019, 25, 198-206.	1.3	4

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37	Rewards, risks, and reaching the right strategy: Evolutionary paths from heuristics to optimal decisions.. Evolutionary Behavioral Sciences, 2018, 12, 177-190.	0.8	4
38	Identifying patient-specific behaviors to understand illness trajectories and predict relapses in bipolar disorder using passive sensing and deep anomaly detection: protocol for a contactless cohort study. BMC Psychiatry, 2022, 22, 288.	2.6	4
39	Origin of life in a digital microcosm. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160350.	3.4	3
40	The Evolution of Neuroplasticity and the Effect on Integrated Information. Entropy, 2019, 21, 524.	2.2	3
41	The Evolution of Generosity in the Ultimatum Game. Scientific Reports, 2016, 6, 34102.	3.3	2
42	Increasing the complexity of solutions produced by an evolutionary developmental system. , 2017, , .		2
43	Comparative Transcriptomics Reveals Distinct Patterns of Gene Expression Conservation through Vertebrate Embryogenesis. Genome Biology and Evolution, 2021, 13, .	2.5	2
44	Evolution of Autonomous Hierarchy Formation and Maintenance. , 0, , .		2
45	The effect of periodic changes in the fitness landscape on brain structure and function. , 2018, , .		1
46	Serendipitous scaffolding to improve a genetic algorithm's speed and quality. , 2018, , .		1
47	Augmenting neuro-evolutionary adaptation with representations does not incur a speed accuracy trade-off. , 2019, , .		1
48	Measuring Representation. , 2010, , .		1
49	How the integration of group and individual level selection affects the evolution of cooperation. , 2018, , .		1
50	The Role Weights Play in Catastrophic Forgetting. , 2021, , .		1
51	Workshop: Graph compression approaches in assembly. , 2012, , .		0
52	Using MAP-Elites to direct the evolution of desired neural characteristics. , 2021, , .		0
53	Evolutionary Dynamics Effects Account for the Improvement Caused by R-Augmentation. , 2020, , .		0