

Alan Frank T Winfield

List of Publications by Year in descending order

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89
papers

2,544
citations

186209

28
h-index

214721

47
g-index

94
all docs

94
docs citations

94
times ranked

1979
citing authors

#	ARTICLE	IF	CITATIONS
1	Morpho Evolution With Learning Using a Controller Archive as an Inheritance Mechanism. IEEE Transactions on Cognitive and Developmental Systems, 2023, 15, 507-517.	2.6	4
2	Experiments in artificial culture: from noisy imitation to storytelling robots. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20200323.	1.8	5
3	Negative updating applied to the best-of-n problem with noisy qualities. Swarm Intelligence, 2021, 15, 111-143.	1.3	6
4	Role-Play as Responsible Robotics: The Virtual Witness Testimony Role-Play Interview for Investigating Hazardous Human-Robot Interactions. Frontiers in Robotics and AI, 2021, 8, 644336.	2.0	0
5	Governing AI safety through independent audits. Nature Machine Intelligence, 2021, 3, 566-571.	8.3	61
6	Towards Autonomous Robot Evolution. , 2021, , 29-51.		11
7	A New Perspective on Robot Ethics through Investigating Human-Robot Interactions with Older Adults. Applied Sciences (Switzerland), 2021, 11, 10136.	1.3	3
8	Sample and time efficient policy learning with CMA-ES and Bayesian Optimisation. , 2020, , .		11
9	ELSA in Industrial Robotics. Current Robotics Reports, 2020, 1, 179-186.	5.1	4
10	Bootstrapping Artificial Evolution to Design Robots for Autonomous Fabrication. Robotics, 2020, 9, 106.	2.1	13
11	Mutual Shaping in Swarm Robotics: User Studies in Fire and Rescue, Storage Organization, and Bridge Inspection. Frontiers in Robotics and AI, 2020, 7, 53.	2.0	26
12	Designing Ethical Social Robots-A Longitudinal Field Study With Older Adults. Frontiers in Robotics and AI, 2020, 7, 1.	2.0	62
13	Hardware Design for Autonomous Robot Evolution. , 2020, , .		10
14	Examining Profiles for Robotic Risk Assessment. , 2020, , .		5
15	The Impact of Affective Verbal Expressions in Social Robots. , 2020, , .		3
16	Special Issue "On Defining Artificial Intelligence" Commentaries and Author's Response. Journal of Artificial General Intelligence, 2020, 11, 1-100.	0.6	33
17	"What Could Possibly Go Wrong?". , 2020, , .		0
18	Speech Related Accessibility Issues in Social Robots. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
19	Evolution of Diverse, Manufacturable Robot Body Plans. , 2020, , .		1
20	“Why Did You Just Do That?” Explainability and Artificial Theory of Mind for Social Robots. Frontiers in Artificial Intelligence and Applications, 2020, , .	0.3	0
21	Toward Controllable Morphogenesis in Large Robot Swarms. IEEE Robotics and Automation Letters, 2019, 4, 3386-3393.	3.3	9
22	Onboard Evolution of Understandable Swarm Behaviors. Advanced Intelligent Systems, 2019, 1, 1900031.	3.3	21
23	The ARE Robot Fabricator: How to (Re)produce Robots that Can Evolve in the Real World. , 2019, , .		7
24	On Proactive, Transparent, and Verifiable Ethical Reasoning for Robots. Proceedings of the IEEE, 2019, 107, 541-561.	16.4	45
25	Machine Ethics: The Design and Governance of Ethical AI and Autonomous Systems [Scanning the Issue]. Proceedings of the IEEE, 2019, 107, 509-517.	16.4	118
26	Ethical standards in robotics and AI. Nature Electronics, 2019, 2, 46-48.	13.1	67
27	Onboard Evolution of Understandable Swarm Behaviors. Advanced Intelligent Systems, 2019, 1, 1970062.	3.3	1
28	Human-robot relationships and the development of responsible social robots. , 2019, , .		5
29	The ARE Robot Fabricator: How to (Re)produce Robots that Can Evolve in the Real World. , 2019, , .		6
30	Evolving Behaviour Trees for Swarm Robotics. Springer Proceedings in Advanced Robotics, 2018, , 487-501.	0.9	30
31	An architecture for ethical robots inspired by the simulation theory of cognition. Cognitive Systems Research, 2018, 48, 56-66.	1.9	86
32	Recruitment Near Worksites Facilitates Robustness of Foraging E-Puck Swarms to Global Positioning Noise. , 2018, , .		4
33	Negative Updating Combined with Opinion Pooling in the Best-of-n Problem in Swarm Robotics. Lecture Notes in Computer Science, 2018, , 97-108.	1.0	13
34	The Dark Side of Ethical Robots. , 2018, , .		22
35	Ethical governance is essential to building trust in robotics and artificial intelligence systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20180085.	1.6	186
36	Mapping Intelligence: Requirements and Possibilities. Studies in Applied Philosophy, Epistemology and Rational Ethics, 2018, , 117-135.	0.2	18

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37	Scoring robotic competitions: Balancing judging promptness and meaningful performance evaluation. , 2018, , .		9
38	Experiments in Artificial Theory of Mind: From Safety to Story-Telling. Frontiers in Robotics and AI, 2018, 5, 75.	2.0	38
39	Feature and Performance Comparison of the V-REP, Gazebo and ARGoS Robot Simulators. Lecture Notes in Computer Science, 2018, , 357-368.	1.0	44
40	Combining Opinion Pooling and Evidential Updating for Multi-Agent Consensus. , 2018, , .		9
41	Principles of robotics: regulating robots in the real world. Connection Science, 2017, 29, 124-129.	1.8	106
42	Rational imitation for robots: the cost difference model. Adaptive Behavior, 2017, 25, 60-71.	1.1	6
43	Standardizing Ethical Design for Artificial Intelligence and Autonomous Systems. Computer, 2017, 50, 116-119.	1.2	160
44	Reactive Virtual Forces for Heterogeneous and Homogeneous Swarm Exploration and Mapping. Lecture Notes in Computer Science, 2017, , 247-261.	1.0	1
45	A Novel Design for a Robot Grappling Hook for use in a Nuclear Cave Environment. IFAC-PapersOnLine, 2016, 49, 288-293.	0.5	2
46	An immune-inspired swarm aggregation algorithm for self-healing swarm robotic systems. BioSystems, 2016, 146, 60-76.	0.9	30
47	Mapping the hinterland: Data issues in open science. Public Understanding of Science, 2016, 25, 88-103.	1.6	21
48	Adaptive foraging for simulated and real robotic swarms: the dynamical response threshold approach. Swarm Intelligence, 2016, 10, 1-31.	1.3	85
49	The euRathlon 2015 Grand Challenge: The First Outdoor Multi-domain Search and Rescue Robotics Competitionâ€”A Marine Perspective. Marine Technology Society Journal, 2016, 50, 81-97.	0.3	20
50	Editorial: Special Issue on Ground Robots Operating in Dynamic, Unstructured and Largeâ€”Scale Outdoor Environments. Journal of Field Robotics, 2015, 32, 445-446.	3.2	1
51	On the Evolution of Behaviors through Embodied Imitation. Artificial Life, 2015, 21, 141-165.	1.0	6
52	Mobile GPGPU Acceleration of Embodied Robot Simulation. Communications in Computer and Information Science, 2015, , 97-109.	0.4	2
53	An Artificial Immune System for Self-Healing in Swarm Robotic Systems. Lecture Notes in Computer Science, 2015, , 61-74.	1.0	1
54	Run-time detection of faults in autonomous mobile robots based on the comparison of simulated and real robot behaviour. , 2014, , .		19

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55	Embodied imitation-enhanced reinforcement learning in multi-agent systems. Adaptive Behavior, 2014, 22, 31-50.	1.1	13
56	The distributed co-evolution of an on-board simulator and controller for swarm robot behaviours. Evolutionary Intelligence, 2014, 7, 95-106.	2.3	13
57	Towards an Ethical Robot: Internal Models, Consequences and Ethical Action Selection. Lecture Notes in Computer Science, 2014, , 85-96.	1.0	64
58	Towards Exogenous Fault Detection in Swarm Robotic Systems. Lecture Notes in Computer Science, 2014, , 429-430.	1.0	8
59	Self-assembly in Heterogeneous Modular Robots. Springer Tracts in Advanced Robotics, 2014, , 219-232.	0.3	3
60	On Fault Tolerance and Scalability of Swarm Robotic Systems. Springer Tracts in Advanced Robotics, 2013, , 431-444.	0.3	45
61	Building safer robots: Safety driven control. International Journal of Robotics Research, 2012, 31, 1603-1626.	5.8	45
62	Open Science. Science Communication, 2012, 34, 679-689.	1.8	49
63	Environment-driven distributed evolutionary adaptation in a population of autonomous robotic agents. Mathematical and Computer Modelling of Dynamical Systems, 2012, 18, 101-129.	1.4	78
64	Towards temporal verification of swarm robotic systems. Robotics and Autonomous Systems, 2012, 60, 1429-1441.	3.0	52
65	The distributed co-evolution of an embodied simulator and controller for swarm robot behaviours. , 2011, , .		8
66	Roboethics â€œfor humans. New Scientist, 2011, 210, 32-33.	0.0	2
67	Towards Temporal Verification of Emergent Behaviours in Swarm Robotic Systems. Lecture Notes in Computer Science, 2011, , 336-347.	1.0	18
68	Interactive robots in experimental biology. Trends in Ecology and Evolution, 2011, 26, 369-375.	4.2	207
69	First Steps Toward Artificial Culture in Robot Societies. Procedia Computer Science, 2011, 7, 130-132.	1.2	1
70	On embodied memetic evolution and the emergence of behavioural traditions in Robots. Memetic Computing, 2011, 3, 261-270.	2.7	33
71	Open-hardware e-puck Linux extension board for experimental swarm robotics research. Microprocessors and Microsystems, 2011, 35, 60-67.	1.8	54
72	Design of Fuzzy Enhanced Hierarchical Motion Stabilizing Controller of Unmanned Ground Vehicle in Three DimensionalSpace. International Journal of Computational Intelligence Systems, 2011, 4, 1168-1178.	1.6	1

#	ARTICLE	IF	CITATIONS
73	Design of hierarchical motion stabilizing controller of tracked mobile robot in three dimensional space. , 2011, , .		4
74	The distributed co-evolution of an embodied simulator and controller for swarm robot behaviours. , 2011, , .		5
75	Study of fuzzy control for controllable suspension based on ADAMS and MATLAB co-simulation. International Journal of Modelling, Identification and Control, 2010, 9, 190.	0.2	3
76	On Adaptive Self-Organization in Artificial Robot Organisms. , 2009, , .		8
77	Simulation research on braking performance of hydrodynamic torque converter and retarder based on automatic shifting rules. International Journal of Modelling, Identification and Control, 2009, 8, 80.	0.2	5
78	Modelling a wireless connected swarm of mobile robots. Swarm Intelligence, 2008, 2, 241-266.	1.3	57
79	Special issue on swarm robotics. Swarm Intelligence, 2008, 2, 69-72.	1.3	67
80	A FEASIBILITY STUDY FOR ENERGY AUTONOMY IN MULTI ROBOT SEARCH AND RESCUE OPERATIONS. , 2008, , .		0
81	Indirect Fuzzy Adaptive Control of Robotic Manipulator Based on Sliding Mode Scheme. , 2007, , .		0
82	An Analysis of Emergent Taxis in a Wireless Connected Swarm of Mobile Robots. , 2007, , .		16
83	Safety in numbers: fault-tolerance in robot swarms. International Journal of Modelling, Identification and Control, 2006, 1, 30.	0.2	110
84	A methodology for provably stable behaviour-based intelligent control. Robotics and Autonomous Systems, 2006, 54, 52-73.	3.0	10
85	On Formal Specification of Emergent Behaviours in Swarm Robotic Systems. International Journal of Advanced Robotic Systems, 2005, 2, 39.	1.3	52
86	Adaptive sliding mode control for MIMO nonlinear systems based on fuzzy logic scheme. International Journal of Automation and Computing, 2004, 1, 51-62.	4.5	26
87	Stable Manipulator Trajectory Control Using Neural Networks. , 1997, , 117-151.		7
88	Stable neural network control for manipulators. Intelligent Systems Engineering, 1993, 2, 213.	0.5	6
89	Estimating the Energy Cost of (Artificial) Evolution. , 0, , .		1