Anders Lyhne Christensen

List of Publications by Year
in descending order

88 papers	1,812 citations	430874 18 h-index	330143 37 g-index
93 all docs	93 docs citations	93 times ranked	1193 citing authors

#	Article	IF	Citations
1	Swarmanoid: A Novel Concept for the Study of Heterogeneous Robotic Swarms. IEEE Robotics and Automation Magazine, 2013, 20, 60-71.	2.0	254
2	From Fireflies to Fault-Tolerant Swarms of Robots. IEEE Transactions on Evolutionary Computation, 2009, 13, 754-766.	10.0	137
3	Evolution of swarm robotics systems with novelty search. Swarm Intelligence, 2013, 7, 115-144.	2.2	97
4	Evolution of Collective Behaviors for a Real Swarm of Aquatic Surface Robots. PLoS ONE, 2016, 11, e0151834.	2.5	86
5	Fault detection in autonomous robots based on fault injection andÂlearning. Autonomous Robots, 2008, 24, 49-67.	4.8	77
6	Open Issues in Evolutionary Robotics. Evolutionary Computation, 2016, 24, 205-236.	3.0	77
7	Morphology control in a multirobot system. IEEE Robotics and Automation Magazine, 2007, 14, 18-25.	2.0	70
8	Devising Effective Novelty Search Algorithms. , 2015, , .		60
9	SWARMORPH: Multirobot Morphogenesis Using Directional Self-Assembly. IEEE Transactions on Robotics, 2009, 25, 738-743.	10.3	53
10	Self-assembly strategies in a group ofÂautonomous mobile robots. Autonomous Robots, 2010, 28, 439-455.	4.8	52
11	Evolving Self-Assembly in Autonomous Homogeneous Robots: Experiments with Two Physical Robots. Artificial Life, 2009, 15, 465-484.	1.3	49
12	Mergeable nervous systems for robots. Nature Communications, 2017, 8, 439.	12.8	43
13	SWARMORPH-script: a language for arbitrary morphology generation in self-assembling robots. Swarm Intelligence, 2008, 2, 143-165.	2.2	42
14	Evolution of Repertoire-Based Control for Robots With Complex Locomotor Systems. IEEE Transactions on Evolutionary Computation, 2018, 22, 314-328.	10.0	42
15	Application of swarm robotics systems to marine environmental monitoring. , 2016, , .		39
16	Generic, scalable and decentralized fault detection for robot swarms. PLoS ONE, 2017, 12, e0182058.	2.5	38
17	odNEAT: An Algorithm for Decentralised Online Evolution of Robotic Controllers. Evolutionary Computation, 2015, 23, 421-449.	3.0	33
18	Generic behaviour similarity measures for evolutionary swarm robotics. , 2013, , .		30

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19	To err is robotic, to tolerate immunological: fault detection in multirobot systems. Bioinspiration and Biomimetics, 2015, 10, 016014.	2.9	30
20	Novelty-Driven Cooperative Coevolution. Evolutionary Computation, 2017, 25, 275-307.	3.0	24
21	odNEAT: An Algorithm for Distributed Online, Onboard Evolution of Robot Behaviours. , 2012, , .		22
22	Fault Detection in a Swarm of Physical Robots Based on Behavioral Outlier Detection. IEEE Transactions on Robotics, 2019, 35, 1516-1522.	10.3	21
23	Evolution of Hybrid Robotic Controllers for Complex Tasks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 78, 463-484.	3.4	20
24	Design of Communication and Control for Swarms of Aquatic Surface Drones. , 2015, , .		20
25	Wireless Sensor and Networking Technologies for Swarms of Aquatic Surface Drones. , 2015, , .		19
26	Hierarchical evolution of robotic controllers for complex tasks. , 2012, , .		15
27	Dynamic Team Heterogeneity in Cooperative Coevolutionary Algorithms. IEEE Transactions on Evolutionary Computation, 2018, 22, 934-948.	10.0	14
28	EvoRBC. , 2016, , .		14
29	Evolutionary online behaviour learning and adaptation in real robots. Royal Society Open Science, 2017, 4, 160938.	2.4	13
30	SWARMORPH: Morphogenesis with Self-Assembling Robots. Understanding Complex Systems, 2012, , 27-60.	0.6	13
31	Online Evolution of Adaptive Robot Behaviour. International Journal of Natural Computing Research, 2014, 4, 59-77.	0.5	13
32	Synchronization and fault detection in autonomous robots. , 2008, , .		12
33	Design and development of an inexpensive aquatic swarm robotics system. , 2016, , .		12
34	Supervised morphogenesis: Exploiting morphological flexibility of self-assembling multirobot systems through cooperation with aerial robots. Robotics and Autonomous Systems, 2019, 112, 154-167.	5.1	12
35	Progressive Minimal Criteria Novelty Search. Lecture Notes in Computer Science, 2012, , 281-290.	1.3	12
36	Spatially targeted communication and self-assembly. , 2012, , .		11

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37	Incremental Evolution of Robot Controllers for a Highly Integrated Task. Lecture Notes in Computer Science, 2006, , 473-484.	1.3	11
38	Formation Control of UAVs and Mobile Robots Using Self-organized Communication Topologies. Lecture Notes in Computer Science, 2020, , 306-314.	1.3	11
39	Performance benefits of self-assembly in a swarm-bot. , 2007, , .		10
40	Cooperative Coevolution of Control for a Real Multirobot System. Lecture Notes in Computer Science, 2016, , 591-601.	1.3	10
41	Hybrid Control for a Real Swarm Robotics System in an Intruder Detection Task. Lecture Notes in Computer Science, 2016, , 213-230.	1.3	10
42	Swarm-Bots to the Rescue. Lecture Notes in Computer Science, 2011, , 165-172.	1.3	10
43	Automatic Synthesis of Fault Detection Modules for Mobile Robots. , 2007, , .		9
44	Spatially targeted communication in decentralized multirobot systems. Autonomous Robots, 2015, 38, 439-457.	4.8	9
45	An approach to evolve and exploit repertoires of general robot behaviours. Swarm and Evolutionary Computation, 2018, 43, 265-283.	8.1	8
46	From Solitary to Collective Behaviours: Decision Making and Cooperation. , 2007, , 575-584.		8
47	Leveraging Online Racing and Population Cloning in Evolutionary Multirobot Systems. Lecture Notes in Computer Science, 2016, , 165-180.	1.3	7
48	Autonomous Reconfiguration in a Self-assembling Multi-robot System. Lecture Notes in Computer Science, 2008, , 259-266.	1.3	7
49	Speeding Up Online Evolution of Robotic Controllers with Macro-neurons. Lecture Notes in Computer Science, 2014, , 765-776.	1.3	7
50	Enhanced directional self-assembly based on active recruitment and guidance. , 2011, , .		6
51	Overcoming Limited Onboard Sensing in Swarm Robotics Through Local Communication. Lecture Notes in Computer Science, 2015, , 201-223.	1.3	6
52	OpenSwarm: An event-driven embedded operating system for miniature robots. , 2016, , .		6
53	Evolving flocking in embodied agents based on local and global application of Reynoldsâ€™ rules. PLoS ONE, 2019, 14, e0224376.	2.5	6
54	Challenges in cooperative coevolution of physically heterogeneous robot teams. Natural Computing, 2019, 18, 29-46.	3.0	6

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55	A Case Study on the Scalability of Online Evolution of Robotic Controllers. Lecture Notes in Computer Science, 2015, , 189-200.	1.3	6
56	<i>Self-Reconfigurable Robotsâ€"An Introduction.</i> Kasper Stoy, David Brandt, and David J. Christensen. (2010, MIT Press.) $35.00, Â£24.95, 224 pages.. Artificial Life, 2012, 18, 237-240.	1.3	5
57	Task-Agnostic Evolution of Diverse Repertoires of Swarm Behaviours. Lecture Notes in Computer Science, 2018, , 225-238.	1.3	5
58	Modelling Synchronisation in Multirobot Systems with Cellular Automata: Analysis of Update Methods and Topology Perturbations. Emergence, Complexity and Computation, 2015, , 267-293.	0.3	5
59	Cooperation in a Heterogeneous Robot Swarm through Spatially Targeted Communication. Lecture Notes in Computer Science, 2010, , 400-407.	1.3	4
60	Towards Artificial Evolution of Complex Behaviors Observed in Insect Colonies. Lecture Notes in Computer Science, 2011, , 153-167.	1.3	4
61	Dynamics of Neuronal Models in Online Neuroevolution of Robotic Controllers. Lecture Notes in Computer Science, 2013, , 90-101.	1.3	4
62	Self-sssembly and morphology control in a swarm-bot. , 2007, , .		3
63	Performance study of Conillon. , 2011, , .		3
64	Unleashing the Potential of Evolutionary Swarm Robotics in the Real World. , 2016, , .		3
65	Coordinating Heterogeneous Swarms through Minimal Communication among Homogeneous Sub-swarms. Lecture Notes in Computer Science, 2010, , 558-559.	1.3	3
66	Cooperative Coevolution of Morphologically Heterogeneous Robots. , 0, , .		3
67	Adaptation of Robot Behaviour through Online Evolution and Neuromodulated Learning. Lecture Notes in Computer Science, 2012, , 300-309.	1.3	3
68	Exogenous Fault Detection in a Collective Robotic Task. , 2007, , 555-564.		3
69	Online Hyper-evolution of Controllers in Multirobot Systems. , 2016, , .		2
70	Comparing Approaches for Evolving High-Level Robot Control Based on Behaviour Repertoires. , 2018, , .		2
71	ClonalÂExpansion Âwithout Self-replicatingÂEntities. Lecture Notes in Computer Science, 2012, , 191-204.	1.3	2
72	Environment classification in multiagent systems inspired by the adaptive immune system. , 0, , .		2

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73	Evolutionary online learning in multirobot systems. AI Matters, 2017, 3, 23-24.	0.4	1
74	A Mechanism to Self-Assemble Patterns with Autonomous Robots. , 2007, , 716-725.		1
75	PMCNS. International Journal of Natural Computing Research, 2014, 4, 1-19.	0.5	1
76	What You Choose to See Is What You Get: An Experiment with Learnt Sensory Modulation in a Robotic Foraging Task. Lecture Notes in Computer Science, 2014, , 789-801.	1.3	1
77	Abnormality Detection in Robots Exhibiting Composite Swarm Behaviours. , 0, , .		1
78	Building and designing a distributed computing platform. , 2010, , .		0
79	ANTS 2012 special issue. Swarm Intelligence, 2013, 7, 79-81.	2.2	0
80	NXTTour. , 2013, , .		0
81	Hyb-CCEA. , 2015, , .		0
82	Evolving Controllers for Robots with Multimodal Locomotion. Lecture Notes in Computer Science, 2016, , 340-351.	1.3	0
83	Evolutionary online learning in multirobot systems. AI Matters, 2017, 3, 23-24.	0.4	0
84	Hyper-Learning Algorithms for Online Evolution of Robot Controllers. ACM Transactions on Autonomous and Adaptive Systems, 2017, 12, 1-26.	0.8	0
85	ANTS 2018 special issue: Editorial. Swarm Intelligence, 2019, 13, 169-172.	2.2	0
86	The Architecture and Performance of WMPI II. Lecture Notes in Computer Science, 2004, , 112-121.	1.3	0
87	Genome Variations. Advances in Intelligent Systems and Computing, 2016, , 309-319.	0.6	0
88	Using Communication for the Evolution of Scalable Role Allocation in Collective Robotics. Lecture Notes in Computer Science, 2018, , 326-337.	1.3	0