

Andrew Philippides

List of Publications by Year in descending order

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Version: 2024-02-01

104
papers

2,530
citations

236612

25
h-index

223531

46
g-index

113
all docs

113
docs citations

113
times ranked

2231
citing authors

#	ARTICLE	IF	CITATIONS
1	EchoVPR: Echo State Networks for Visual Place Recognition. IEEE Robotics and Automation Letters, 2022, 7, 4520-4527.	3.3	7
2	Nitric Oxide Neuromodulation. , 2022, , 2460-2472.		0
3	A Dynamically Balanced Kinematically Redundant Planar Parallel Robot. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	4
4	Recent advances in evolutionary and bio-inspired adaptive robotics: Exploiting embodied dynamics. Applied Intelligence, 2021, 51, 6467-6496.	3.3	15
5	Learning with reinforcement prediction errors in a model of the Drosophila mushroom body. Nature Communications, 2021, 12, 2569.	5.8	24
6	Mapping Vicon Motion Tracking to 6-Axis IMU Data for Wearable Activity Recognition. Smart Innovation, Systems and Technologies, 2021, , 3-20.	0.5	1
7	Improving Smartphone-Based Transport Mode Recognition Using Generative Adversarial Networks. Smart Innovation, Systems and Technologies, 2021, , 63-79.	0.5	1
8	Exploring the robustness of insect-inspired visual navigation for flying robots. , 2020, , .		0
9	Evolved Transistor Array Robot Controllers. Evolutionary Computation, 2020, 28, 677-708.	2.3	1
10	On the False Positives and False Negatives of the Jacobian Matrix in Kinematically Redundant Parallel Mechanisms. IEEE Transactions on Robotics, 2020, 36, 951-958.	7.3	9
11	A robust geometric method of singularity avoidance for kinematically redundant planar parallel robot manipulators. Mechanism and Machine Theory, 2020, 151, 103863.	2.7	23
12	Insect Inspired View Based Navigation Exploiting Temporal Information. Lecture Notes in Computer Science, 2020, , 204-216.	1.0	5
13	Snapshot Navigation in the Wavelet Domain. Lecture Notes in Computer Science, 2020, , 245-256.	1.0	3
14	A Geometric Method of Singularity Avoidance for Kinematically Redundant Planar Parallel Robots. Springer Proceedings in Advanced Robotics, 2019, , 187-194.	0.9	2
15	Insect-Inspired Visual Navigation On-Board an Autonomous Robot: Real-World Routes Encoded in a Single Layer Network. , 2019, , .		5
16	Evolving Recurrent Neural Network Controllers by Incremental Fitness Shaping. , 2019, , .		2
17	Simulating Soft-Bodied Swimmers with Particle-Based Physics. Soft Robotics, 2019, 6, 263-275.	4.6	3
18	A Novel Kinematically Redundant Planar Parallel Robot Manipulator With Full Rotatability. Journal of Mechanisms and Robotics, 2019, 11, .	1.5	15

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19	Walking together: behavioural signatures of psychological crowds. Royal Society Open Science, 2018, 5, 180172.	1.1	36
20	Sleep and the heart: Interoceptive differences linked to poor experiential sleep quality in anxiety and depression. Biological Psychology, 2017, 127, 163-172.	1.1	56
21	Parsimony versus Reductionism: How Can Crowd Psychology be Introduced into Computer Simulation?. Review of General Psychology, 2017, 21, 95-102.	2.1	21
22	Vision for navigation: What can we learn from ants?. Arthropod Structure and Development, 2017, 46, 718-722.	0.8	30
23	Neural coding in the visual system of Drosophila melanogaster: How do small neural populations support visually guided behaviours?. PLoS Computational Biology, 2017, 13, e1005735.	1.5	15
24	Using Deep Autoencoders to Investigate Image Matching in Visual Navigation. Lecture Notes in Computer Science, 2017, , 465-474.	1.0	3
25	VEGFR2 pY949 signalling regulates adherens junction integrity and metastatic spread. Nature Communications, 2016, 7, 11017.	5.8	111
26	Modelling social identification and helping in evacuation simulation. Safety Science, 2016, 89, 288-300.	2.6	61
27	How do field of view and resolution affect the information content of panoramic scenes for visual navigation? A computational investigation. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2016, 202, 87-95.	0.7	30
28	Insect Navigation: How Do Wasps Get Home?. Current Biology, 2016, 26, R166-R168.	1.8	7
29	Active Shape Discrimination with Compliant Bodies as Reservoir Computers. Artificial Life, 2016, 22, 241-268.	1.0	4
30	Insect-Inspired Visual Navigation for Flying Robots. Lecture Notes in Computer Science, 2016, , 263-274.	1.0	3
31	Unsupervised Learning in an Ensemble of Spiking Neural Networks Mediated by ITDP. PLoS Computational Biology, 2016, 12, e1005137.	1.5	17
32	Insect-Inspired Visual Systems and Visually Guided Behavior. , 2016, , 1646-1653.		0
33	Insect-Inspired Navigation Algorithm for an Aerial Agent Using Satellite Imagery. PLoS ONE, 2015, 10, e0122077.	1.1	12
34	From Mindless Masses to Small Groups: Conceptualizing Collective Behavior in Crowd Modeling. Review of General Psychology, 2015, 19, 215-229.	2.1	96
35	Formin-Mediated Actin Polymerization at Endothelial Junctions Is Required for Vessel Lumen Formation and Stabilization. Developmental Cell, 2015, 32, 123-132.	3.1	87
36	Using Neural Networks to Understand the Information That Guides Behavior: A Case Study in Visual Navigation. Methods in Molecular Biology, 2015, 1260, 227-244.	0.4	6

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37	The acquisition and expression of memories of distance and direction in navigating wood ants. <i>Journal of Experimental Biology</i> , 2015, 218, 3580-8.	0.8	11
38	Navigation-specific neural coding in the visual system of <i>Drosophila</i> . <i>BioSystems</i> , 2015, 136, 120-127.	0.9	17
39	Validation of an iPad visual analogue rating system for assessing appetite and satiety. <i>Appetite</i> , 2015, 84, 259-263.	1.8	12
40	Insect-Inspired Visual Systems and Visually Guided Behavior. , 2015, , 1-9.		0
41	Nitric Oxide Neuromodulation. , 2015, , 2087-2100.		0
42	Humans do not Always Act Selfishly: Social Identity and Helping in Emergency Evacuation Simulation. <i>Transportation Research Procedia</i> , 2014, 2, 585-593.	0.8	37
43	Dynamic, small-world social network generation through local agent interactions. <i>Complexity</i> , 2014, 19, 44-53.	0.9	18
44	Many Hands Make Light Work: Further Studies in Group Evolution. <i>Artificial Life</i> , 2014, 20, 163-181.	1.0	3
45	What is the relationship between visual environment and the form of ant learning-walks? An in silico investigation of insect navigation. <i>Adaptive Behavior</i> , 2014, 22, 163-179.	1.1	30
46	The role of differential VE-cadherin dynamics in cell rearrangement during angiogenesis. <i>Nature Cell Biology</i> , 2014, 16, 309-321.	4.6	328
47	Still no convincing evidence for cognitive map use by honeybees. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E4396-7.	3.3	61
48	Visual scanning behaviours and their role in the navigation of the Australian desert ant <i>Melophorus bagoti</i> . <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2014, 200, 615-626.	0.7	75
49	Head movements and the optic flow generated during the learning flights of bumblebees. <i>Journal of Experimental Biology</i> , 2014, 217, 2633-2642.	0.8	45
50	Do Endothelial Cells Dream of Eclectic Shape?. <i>Developmental Cell</i> , 2014, 29, 146-158.	3.1	26
51	Nitric Oxide Neuromodulation. , 2014, , 1-15.		0
52	Tool sequence optimisation using preferential multi-objective search. , 2013, , .		0
53	Bumblebee calligraphy: the design and control of flight motifs in the learning and return flights of <i>Bombus terrestris</i> . <i>Journal of Experimental Biology</i> , 2013, 216, 1093-1104.	0.8	64
54	Coordinating compass-based and nest-based flight directions during bumblebee learning and return flights. <i>Journal of Experimental Biology</i> , 2013, 216, 1105-1113.	0.8	29

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55	Tool sequence optimization using synchronous and asynchronous parallel multi-objective evolutionary algorithms with heterogeneous evaluations. , 2013, , .		13
56	Multi-objective tool sequence and parameter optimization for rough milling applications. , 2013, , .		1
57	Snapshots in ants? New interpretations of paradigmatic experiments. Journal of Experimental Biology, 2013, 216, 1766-70.	0.8	49
58	Multi-objectivization of the Tool Selection Problem on a Budget of Evaluations. Lecture Notes in Computer Science, 2013, , 600-614.	1.0	6
59	Unconstrain the Population: The Benefits of Horizontal Gene Transfer in Genetic Algorithms. , 2013, , 117-127.		1
60	How Active Vision Facilitates Familiarity-Based Homing. Lecture Notes in Computer Science, 2013, , 427-430.	1.0	0
61	Metaheuristic approaches to tool selection optimisation. , 2012, , .		7
62	A neural network based holistic model of ant route navigation. BMC Neuroscience, 2012, 13, O1.	0.8	1
63	A Model of Ant Route Navigation Driven by Scene Familiarity. PLoS Computational Biology, 2012, 8, e1002336.	1.5	174
64	How Can Embodiment Simplify the Problem of View-Based Navigation?. Lecture Notes in Computer Science, 2012, , 216-227.	1.0	1
65	Coarse-grained statistics for attributing criticality to heterogeneous neural networks. BMC Neuroscience, 2011, 12, .	0.8	0
66	How might ants use panoramic views for route navigation?. Journal of Experimental Biology, 2011, 214, 445-451.	0.8	85
67	Models of Visually Guided Routes in Ants: Embodiment Simplifies Route Acquisition. Lecture Notes in Computer Science, 2011, , 75-84.	1.0	6
68	Animal Cognition: Multi-modal Interactions in Ant Learning. Current Biology, 2010, 20, R639-R640.	1.8	77
69	Spatial, temporal, and modulatory factors affecting GasNet evolvability in a visually guided robotics task. Complexity, 2010, 16, 35-44.	0.9	18
70	Spike-timing dependent plasticity and the cognitive map. Frontiers in Computational Neuroscience, 2010, 4, 142.	1.2	12
71	Reconciling the STDP and BCM Models of Synaptic Plasticity in a Spiking Recurrent Neural Network. Neural Computation, 2010, 22, 2059-2085.	1.3	18
72	Dual Coding with STDP in a Spiking Recurrent Neural Network Model of the Hippocampus. PLoS Computational Biology, 2010, 6, e1000839.	1.5	29

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73	STDP AND AUTO-ASSOCIATIVE NETWORK FUNCTION. , 2009, , .		0
74	Preferred viewing directions of bumblebees (<i>Bombus terrestris</i> L.) when learning and approaching their nest site. <i>Journal of Experimental Biology</i> , 2009, 212, 3193-3204.	0.8	55
75	Preferred viewing directions of bumblebees (<i>Bombus terrestris</i> L.) when learning and approaching their nest site. <i>Journal of Experimental Biology</i> , 2009, 212, 3769-3769.	0.8	2
76	Dual coding in an auto-associative network model of the hippocampus. <i>BMC Neuroscience</i> , 2009, 10, .	0.8	0
77	What can be learnt from analysing insect orientation flights using probabilistic SLAM?. <i>Biological Cybernetics</i> , 2009, 101, 169-182.	0.6	16
78	A model of visual detection of angular speed for bees. <i>Journal of Theoretical Biology</i> , 2009, 257, 61-72.	0.8	12
79	Linked Local Visual Navigation and Robustness to Motor Noise and Route Displacement. <i>Lecture Notes in Computer Science</i> , 2008, , 179-188.	1.0	5
80	Theta Phase Coding and Acetylcholine Modulation in a Spiking Neural Network. <i>Lecture Notes in Computer Science</i> , 2008, , 159-168.	1.0	0
81	Bee SLAM. , 2007, , .		0
82	Linked Local Navigation for Visual Route Guidance. <i>Adaptive Behavior</i> , 2007, 15, 257-271.	1.1	50
83	Enhanced fidelity of diffusive nitric oxide signalling by the spatial segregation of source and target neurones in the memory centre of an insect brain. <i>European Journal of Neuroscience</i> , 2007, 25, 181-190.	1.2	26
84	Improving Agent Localisation Through Stereotypical Motion. , 2007, , 335-344.		2
85	Statistical software review. <i>British Journal of Mathematical and Statistical Psychology</i> , 2006, 59, 221-222.	1.0	0
86	Navigation in Large-Scale Environments Using an Augmented Model of Visual Homing. <i>Lecture Notes in Computer Science</i> , 2006, , 251-262.	1.0	5
87	GasNets and CTRNNs – A Comparison in Terms of Evolvability. <i>Lecture Notes in Computer Science</i> , 2006, , 461-472.	1.0	7
88	Spatially Constrained Networks and the Evolution of Modular Control Systems. <i>Lecture Notes in Computer Science</i> , 2006, , 546-557.	1.0	6
89	Investigating STDP and LTP in a Spiking Neural Network. <i>Lecture Notes in Computer Science</i> , 2006, , 323-334.	1.0	0
90	Flexible Couplings: Diffusing Neuromodulators and Adaptive Robotics. <i>Artificial Life</i> , 2005, 11, 139-160.	1.0	47

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91	Modeling Cooperative Volume Signaling in a Plexus of Nitric Oxide Synthase-Expressing Neurons. Journal of Neuroscience, 2005, 25, 6520-6532.	1.7	54
92	Structure-Based Models of NODiffusion in the Nervous System. Chapman & Hall/CRC Mathematical and Computational Biology Series, 2003, , .	0.1	2
93	Neuronal Plasticity and Temporal Adaptivity: GasNet Robot Control Networks. Adaptive Behavior, 2002, 10, 161-183.	1.1	6
94	Volume Signalling in Real and Robot Nervous Systems. Theory in Biosciences, 2001, 120, 253-269.	0.6	0
95	The Shifting Network: Volume Signalling in Real and Robot Nervous Systems. Lecture Notes in Computer Science, 2001, , 23-36.	1.0	3
96	Nitric Oxide Signalling in Real and Artificial Neural Networks. BT Technology Journal, 2000, 18, 140-149.	0.6	10
97	Four-Dimensional Neuronal Signaling by Nitric Oxide: A Computational Analysis. Journal of Neuroscience, 2000, 20, 1199-1207.	1.7	113
98	Neural Signalling: Itâ€™s a Gas!. Perspectives in Neural Computing, 1998, , 979-984.	0.1	9
99	Neutrality and ruggedness in robot landscapes. , 0, , .		7
100	Active Shape Discrimination with Physical Reservoir Computers. , 0, , .		4
101	A Model of Visual Route Navigation in Ants Without Waypoints. Frontiers in Behavioral Neuroscience, 0, 6, .	1.0	0
102	Models of visual navigation in ants. Frontiers in Physiology, 0, 4, .	1.3	0
103	An Environmental Model of Self-Compatibility Transitions in the Solanaceae Plant Family. , 0, , .		0
104	A Situated and Embodied Model of Ant Route Navigation. , 0, , .		0