Andrew Philippides

List of Publications by Year
in descending order

		236612	223531
104	2,530	25	46
papers	citations	h-index	g-index

113	113	113	2231
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The role of differential VE-cadherin dynamics in cell rearrangement during angiogenesis. Nature Cell Biology, 2014, 16, 309-321.	4.6	328
2	A Model of Ant Route Navigation Driven by Scene Familiarity. PLoS Computational Biology, 2012, 8, e1002336.	1.5	174
3	Four-Dimensional Neuronal Signaling by Nitric Oxide: A Computational Analysis. Journal of Neuroscience, 2000, 20, 1199-1207.	1.7	113
4	VEGFR2 pY949 signalling regulates adherens junction integrity and metastatic spread. Nature Communications, 2016, 7, 11017.	5.8	111
5	From Mindless Masses to Small Groups: Conceptualizing Collective Behavior in Crowd Modeling. Review of General Psychology, 2015, 19, 215-229.	2.1	96
6	Formin-Mediated Actin Polymerization at Endothelial Junctions Is Required for Vessel Lumen Formation and Stabilization. Developmental Cell, 2015, 32, 123-132.	3.1	87
7	How might ants use panoramic views for route navigation?. Journal of Experimental Biology, 2011, 214, 445-451.	0.8	85
8	Animal Cognition: Multi-modal Interactions in Ant Learning. Current Biology, 2010, 20, R639-R640.	1.8	77
9	Visual scanning behaviours and their role in the navigation of the Australian desert ant Melophorus bagoti. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2014, 200, 615-626.	0.7	75
10	Bumblebee calligraphy: the design and control of flight motifs in the learning and return flights ofBombus terrestris. Journal of Experimental Biology, 2013, 216, 1093-1104.	0.8	64
11	Still no convincing evidence for cognitive map use by honeybees. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4396-7.	3.3	61
12	Modelling social identification and helping in evacuation simulation. Safety Science, 2016, 89, 288-300.	2.6	61
13	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
14	Preferred viewing directions of bumblebees (Bombus terrestrisL.) when learning and approaching their nest site. Journal of Experimental Biology, 2009, 212, 3193-3204.	0.8	55
15	Modeling Cooperative Volume Signaling in a Plexus of Nitric Oxide Synthase-Expressing Neurons. Journal of Neuroscience, 2005, 25, 6520-6532.	1.7	54
16	Linked Local Navigation for Visual Route Guidance. Adaptive Behavior, 2007, 15, 257-271.	1.1	50
17	Snapshots in ants? New interpretations of paradigmatic experiments. Journal of Experimental Biology, 2013, 216, 1766-70.	0.8	49
18	Flexible Couplings: Diffusing Neuromodulators and Adaptive Robotics. Artificial Life, 2005, 11, 139-160.	1.0	47

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19	Head movements and the optic flow generated during the learning flights of bumblebees. Journal of Experimental Biology, 2014, 217, 2633-2642.	0.8	45
20	Humans do not Always Act Selfishly: Social Identity and Helping in Emergency Evacuation Simulation. Transportation Research Procedia, 2014, 2, 585-593.	0.8	37
21	Walking together: behavioural signatures of psychological crowds. Royal Society Open Science, 2018, 5, 180172.	1.1	36
22	What is the relationship between visual environment and the form of ant learning-walks? An in silico investigation of insect navigation. Adaptive Behavior, 2014, 22, 163-179.	1.1	30
23	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
24	Vision for navigation: What can we learn from ants?. Arthropod Structure and Development, 2017, 46, 718-722.	0.8	30
25	Dual Coding with STDP in a Spiking Recurrent Neural Network Model of the Hippocampus. PLoS Computational Biology, 2010, 6, e1000839.	1.5	29
26	Coordinating compass-based and nest-based flight directions during bumblebee learning and return flights. Journal of Experimental Biology, 2013, 216, 1105-1113.	0.8	29
27	Enhanced fidelity of diffusive nitric oxide signalling by the spatial segregation of source and target neurones in the memory centre of an insect brain. European Journal of Neuroscience, 2007, 25, 181-190.	1.2	26
28	Do Endothelial Cells Dream of Eclectic Shape?. Developmental Cell, 2014, 29, 146-158.	3.1	26
29	Learning with reinforcement prediction errors in a model of the Drosophila mushroom body. Nature Communications, 2021, 12, 2569.	5.8	24
30	A robust geometric method of singularity avoidance for kinematically redundant planar parallel robot manipulators. Mechanism and Machine Theory, 2020, 151, 103863.	2.7	23
31	Parsimony versus Reductionism: How Can Crowd Psychology be Introduced into Computer Simulation?. Review of General Psychology, 2017, 21, 95-102.	2.1	21
32	Spatial, temporal, and modulatory factors affecting GasNet evolvability in a visually guided robotics task. Complexity, 2010, 16, 35-44.	0.9	18
33	Reconciling the STDP and BCM Models of Synaptic Plasticity in a Spiking Recurrent Neural Network. Neural Computation, 2010, 22, 2059-2085.	1.3	18
34	Dynamic, smallâ€world social network generation through local agent interactions. Complexity, 2014, 19, 44-53.	0.9	18
35	Navigation-specific neural coding in the visual system of Drosophila. BioSystems, 2015, 136, 120-127.	0.9	17
36	Unsupervised Learning in an Ensemble of Spiking Neural Networks Mediated by ITDP. PLoS Computational Biology, 2016, 12, e1005137.	1.5	17

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37	What can be learnt from analysing insect orientation flights using probabilistic SLAM?. Biological Cybernetics, 2009, 101, 169-182.	0.6	16
38	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
39	A Novel Kinematically Redundant Planar Parallel Robot Manipulator With Full Rotatability. Journal of Mechanisms and Robotics, 2019, 11, .	1.5	15
40	Recent advances in evolutionary and bio-inspired adaptive robotics: Exploiting embodied dynamics. Applied Intelligence, 2021, 51, 6467-6496.	3.3	15
41	Tool sequence optimization using synchronous and asynchronous parallel multi-objective evolutionary algorithms with heterogeneous evaluations. , 2013, , .		13
42	A model of visual detection of angular speed for bees. Journal of Theoretical Biology, 2009, 257, 61-72.	0.8	12
43	Spike-timing dependent plasticity and the cognitive map. Frontiers in Computational Neuroscience, 2010, 4, 142.	1.2	12
44	Insect-Inspired Navigation Algorithm for an Aerial Agent Using Satellite Imagery. PLoS ONE, 2015, 10, e0122077.	1.1	12
45	Validation of an iPad visual analogue rating system for assessing appetite and satiety. Appetite, 2015, 84, 259-263.	1.8	12
46	The acquisition and expression of memories of distance and direction in navigating wood ants. Journal of Experimental Biology, 2015, 218, 3580-8.	0.8	11
47	Nitric Oxide Signalling in Real and Artificial Neural Networks. BT Technology Journal, 2000, 18, 140-149.	0.6	10
48	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
49	Neural Signalling: Itâ€™s a Gas!. Perspectives in Neural Computing, 1998, , 979-984.	0.1	9
50	Neutrality and ruggedness in robot landscapes. , 0, , .		7
51	Metaheuristic approaches to tool selection optimisation. , 2012, , .		7
52	Insect Navigation: How Do Wasps Get Home?. Current Biology, 2016, 26, R166-R168.	1.8	7
53	GasNets and CTRNNs â€“ A Comparison in Terms of Evolvability. Lecture Notes in Computer Science, 2006, , 461-472.	1.0	7
54	EchoVPR: Echo State Networks for Visual Place Recognition. IEEE Robotics and Automation Letters, 2022, 7, 4520-4527.	3.3	7

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55	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
56	Spatially Constrained Networks and the Evolution of Modular Control Systems. Lecture Notes in Computer Science, 2006, , 546-557.	1.0	6
57	Models of Visually Guided Routes in Ants: Embodiment Simplifies Route Acquisition. Lecture Notes in Computer Science, 2011, , 75-84.	1.0	6
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	Neuronal Plasticity and Temporal Adaptivity: GasNet Robot Control Networks. Adaptive Behavior, 2002, 10, 161-183.	1.1	6
60	Insect-Inspired Visual Navigation On-Board an Autonomous Robot: Real-World Routes Encoded in a Single Layer Network. , 2019, , .		5
61	Navigation in Large-Scale Environments Using an Augmented Model of Visual Homing. Lecture Notes in Computer Science, 2006, , 251-262.	1.0	5
62	Insect Inspired View Based Navigation Exploiting Temporal Information. Lecture Notes in Computer Science, 2020, , 204-216.	1.0	5
63	Linked Local Visual Navigation and Robustness to Motor Noise and Route Displacement. Lecture Notes in Computer Science, 2008, , 179-188.	1.0	5
64	Active Shape Discrimination with Compliant Bodies as Reservoir Computers. Artificial Life, 2016, 22, 241-268.	1.0	4
65	A Dynamically Balanced Kinematically Redundant Planar Parallel Robot. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	4
66	Active Shape Discrimination with Physical Reservoir Computers. , 0, , .		4
67	Many Hands Make Light Work: Further Studies in Group Evolution. Artificial Life, 2014, 20, 163-181.	1.0	3
68	Simulating Soft-Bodied Swimmers with Particle-Based Physics. Soft Robotics, 2019, 6, 263-275.	4.6	3
69	Snapshot Navigation in the Wavelet Domain. Lecture Notes in Computer Science, 2020, , 245-256.	1.0	3
70	Insect-Inspired Visual Navigation for Flying Robots. Lecture Notes in Computer Science, 2016, , 263-274.	1.0	3
71	Using Deep Autoencoders to Investigate Image Matching in Visual Navigation. Lecture Notes in Computer Science, 2017, , 465-474.	1.0	3
72	The Shifting Network: Volume Signalling in Real and Robot Nervous Systems. Lecture Notes in Computer Science, 2001, , 23-36.	1.0	3

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73	Preferred viewing directions of bumblebees (Bombus terrestrisL.) when learning and approaching their nest site. Journal of Experimental Biology, 2009, 212, 3769-3769.	0.8	2
74	A Geometric Method of Singularity Avoidance for Kinematically Redundant Planar Parallel Robots. Springer Proceedings in Advanced Robotics, 2019, , 187-194.	0.9	2
75	Evolving Recurrent Neural Network Controllers by Incremental Fitness Shaping. , 2019, , .		2
76	Structure-Based Models of NODiffusion in the Nervous System. Chapman & Hall/CRC Mathematical and Computational Biology Series, 2003, , .	0.1	2
77	Improving Agent Localisation Through Stereotypical Motion. , 2007, , 335-344.		2
78	A neural network based holistic model of ant route navigation. BMC Neuroscience, 2012, 13, O1.	0.8	1
79	Multi-objective tool sequence and parameter optimization for rough milling applications. , 2013, , .		1
80	Evolved Transistor Array Robot Controllers. Evolutionary Computation, 2020, 28, 677-708.	2.3	1
81	How Can Embodiment Simplify the Problem of View-Based Navigation?. Lecture Notes in Computer Science, 2012, , 216-227.	1.0	1
82	Unconstrain the Population: The Benefits of Horizontal Gene Transfer in Genetic Algorithms. , 2013, , 117-127.		1
83	Mapping Vicon Motion Tracking to 6-Axis IMU Data for Wearable Activity Recognition. Smart Innovation, Systems and Technologies, 2021, , 3-20.	0.5	1
84	Improving Smartphone-Based Transport Mode Recognition Using Generative Adversarial Networks. Smart Innovation, Systems and Technologies, 2021, , 63-79.	0.5	1
85	Volume Signalling in Real and Robot Nervous Systems. Theory in Biosciences, 2001, 120, 253-269.	0.6	0
86	Statistical software review. British Journal of Mathematical and Statistical Psychology, 2006, 59, 221-222.	1.0	0
87	Bee SLAM. , 2007, , .		0
88	STDP AND AUTO-ASSOCIATIVE NETWORK FUNCTION. , 2009, , .		0
89	Dual coding in an auto-associative network model of the hippocampus. BMC Neuroscience, 2009, 10, .	0.8	0
90	Coarse-grained statistics for attributing criticality to heterogeneous neural networks. BMC Neuroscience, 2011, 12, .	0.8	0

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91	Tool sequence optimisation using preferential multi-objective search. , 2013, , .		0
92	Exploring the robustness of insect-inspired visual navigation for flying robots. , 2020, , .		0
93	Investigating STDP and LTP in a Spiking Neural Network. Lecture Notes in Computer Science, 2006, , 323-334.	1.0	0
94	A Model of Visual Route Navigation in Ants Without Waypoints. Frontiers in Behavioral Neuroscience, 0, 6, .	1.0	0
95	Models of visual navigation in ants. Frontiers in Physiology, 0, 4, .	1.3	0
96	How Active Vision Facilitates Familiarity-Based Homing. Lecture Notes in Computer Science, 2013, , 427-430.	1.0	0
97	An Environmental Model of Self-Compatibility Transitions in the Solanaceae Plant Family. , 0, , .		0
98	A Situated and Embodied Model of Ant Route Navigation. , 0, , .		0
99	Nitric Oxide Neuromodulation. , 2014, , 1-15.		0
100	Insect-Inspired Visual Systems and Visually Guided Behavior. , 2015, , 1-9.		0
101	Nitric Oxide Neuromodulation. , 2015, , 2087-2100.		0
102	Insect-Inspired Visual Systems and Visually Guided Behavior. , 2016, , 1646-1653.		0
103	Theta Phase Coding and Acetylcholine Modulation in a Spiking Neural Network. Lecture Notes in Computer Science, 2008, , 159-168.	1.0	0
104	Nitric Oxide Neuromodulation. , 2022, , 2460-2472.		0