Paul Graham

List of Publications by Year
in descending order

81 papers	3,322 citations	117625 34 h-index	168389 53 g-index
92 all docs	92 docs citations	92 times ranked	1367 citing authors

#	Article	IF	Citations
1	View-Based Homing. , 2022, , 7194-7196.		0
2	Recent advances in evolutionary and bio-inspired adaptive robotics: Exploiting embodied dynamics. Applied Intelligence, 2021, 51, 6467-6496.	5.3	15
3	A unified mechanism for innate and learned visual landmark guidance in the insect central complex. PLoS Computational Biology, 2021, 17, e1009383.	3.2	28
4	Exploring the robustness of insect-inspired visual navigation for flying robots. , 2020, , .		0
5	Mushroom Bodies Are Required for Learned Visual Navigation, but Not for Innate Visual Behavior, in Ants. Current Biology, 2020, 30, 3438-3443.e2.	3.9	81
6	Connecting brain to behaviour: a role for general purpose steering circuits in insect orientation?. Journal of Experimental Biology, 2020, 223, .	1.7	39
7	Multimodal influences on learning walks in desert ants (Cataglyphis fortis). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2020, 206, 701-709.	1.6	5
8	Multimodal interactions in insect navigation. Animal Cognition, 2020, 23, 1129-1141.	1.8	68
9	Dynamic multimodal interactions in navigating wood ants: What do path details tell us about cue integration?. Journal of Experimental Biology, 2020, 223, .	1.7	18
10	Insect Inspired View Based Navigation Exploiting Temporal Information. Lecture Notes in Computer Science, 2020, , 204-216.	1.3	5
11	Snapshot Navigation in the Wavelet Domain. Lecture Notes in Computer Science, 2020, , 245-256.	1.3	3
12	Rapid Aversive and Memory Trace Learning during Route Navigation in Desert Ants. Current Biology, 2020, 30, 1927-1933.e2.	3.9	44
13	A motion compensation treadmill for untethered wood ants (Formica rufa): evidence for transfer of orientation memories from free-walking training. Journal of Experimental Biology, 2020, 223, .	1.7	8
14	Spatial Cognition: Allowing Natural Behaviours toÂFlourish in the Lab. Current Biology, 2019, 29, R639-R641.	3.9	0
15	Insect-Inspired Visual Navigation On-Board an Autonomous Robot: Real-World Routes Encoded in a Single Layer Network. , 2019, , .		5
16	Running paths to nowhere: repetition of routes shows how navigating ants modulate online the weights accorded to cues. Animal Cognition, 2019, 22, 213-222.	1.8	31
17	Insect Navigation. , 2019, , 581-587.		0
18	The interaction of path integration and terrestrial visual cues in navigating desert ants: what can we learn from path characteristics?. Journal of Experimental Biology, 2018, 221, .	1.7	27

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19	View-Based Homing. , 2018, , 1-3.		0
20	Insect Navigation: What Backward Walking Reveals about the Control of Movement. Current Biology, 2017, 27, R141-R144.	3.9	11
21	Vision for navigation: What can we learn from ants?. Arthropod Structure and Development, 2017, 46, 718-722.	1.4	30
22	Social Life in Arid Environments: The Case Study of Cataglyphis Ants. Annual Review of Entomology, 2017, 62, 305-321.	11.8	57
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.	3.2	15
24	Using Deep Autoencoders to Investigate Image Matching in Visual Navigation. Lecture Notes in Computer Science, 2017, , 465-474.	1.3	3
25	Insect Orientation: The Travails of Going Straight. Current Biology, 2016, 26, R461-R463.	3.9	4
26	Land-use and sustainability under intersecting global change and domestic policy scenarios: Trajectories for Australia to 2050. Global Environmental Change, 2016, 38, 130-152.	7.8	85
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.	1.6	30
28	The Sensory Ecology of Ant Navigation: From Natural Environments to Neural Mechanisms. Annual Review of Entomology, 2016, 61, 63-76.	11.8	97
29	Insect-Inspired Visual Navigation for Flying Robots. Lecture Notes in Computer Science, 2016, , 263-274.	1.3	3
30	Insect-Inspired Visual Systems and Visually Guided Behavior. , 2016, , 1646-1653.		0
31	Insect-Inspired Navigation Algorithm for an Aerial Agent Using Satellite Imagery. PLoS ONE, 2015, 10, e0122077.	2.5	12
32	Insect Navigation: Do Honeybees Learn to Follow Highways?. Current Biology, 2015, 25, R240-R242.	3.9	21
33	Using Neural Networks to Understand the Information That Guides Behavior: A Case Study in Visual Navigation. Methods in Molecular Biology, 2015, 1260, 227-244.	0.9	6
34	Desert ants use olfactory scenes for navigation. Animal Behaviour, 2015, 106, 99-105.	1.9	51
35	Modelling Australian land use competition and ecosystem services with food price feedbacks at high spatial resolution. Environmental Modelling and Software, 2015, 69, 141-154.	4.5	58
36	Insect navigation: do ants live in the now?. Journal of Experimental Biology, 2015, 218, 819-823.	1.7	15

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37	Navigation-specific neural coding in the visual system of Drosophila. BioSystems, 2015, 136, 120-127.	2.0	17
38	Insect-Inspired Visual Systems and Visually Guided Behavior. , 2015, , 1-9.		0
39	Scene perception and the visual control of travel direction in navigating wood ants. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130035.	4.0	29
40	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.	1.9	30
41	Insect Vision: Emergence of Pattern Recognition from Coarse Encoding. Current Biology, 2014, 24, R78-R80.	3.9	17
42	Desert Ants Locate Food by Combining High Sensitivity to Food Odors with Extensive Crosswind Runs. Current Biology, 2014, 24, 960-964.	3.9	84
43	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.	7.1	61
44	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.	1.6	75
45	Phase-Dependent Visual Control of the Zigzag Paths of Navigating Wood Ants. Current Biology, 2013, 23, 2393-2399.	3.9	28
46	Visual Scene Perception in Navigating Wood Ants. Current Biology, 2013, 23, 684-690.	3.9	42
47	Snapshots in ants? New interpretations of paradigmatic experiments. Journal of Experimental Biology, 2013, 216, 1766-70.	1.7	49
48	How Active Vision Facilitates Familiarity-Based Homing. Lecture Notes in Computer Science, 2013, , 427-430.	1.3	0
49	View-Based Matching Can Be More than Image Matching: The Importance of considering an Animal's Perspective. I-Perception, 2012, 3, 547-549.	1.4	14
50	What can we learn from studies of insect navigation?. Animal Behaviour, 2012, 84, 13-20.	1.9	96
51	A neural network based holistic model of ant route navigation. BMC Neuroscience, 2012, 13, O1.	1.9	1
52	A Model of Ant Route Navigation Driven by Scene Familiarity. PLoS Computational Biology, 2012, 8, e1002336.	3.2	174
53	How Can Embodiment Simplify the Problem of View-Based Navigation?. Lecture Notes in Computer Science, 2012, , 216-227.	1.3	1
54	How might ants use panoramic views for route navigation?. Journal of Experimental Biology, 2011, 214, 445-451.	1.7	85

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55	Models of Visually Guided Routes in Ants: Embodiment Simplifies Route Acquisition. Lecture Notes in Computer Science, 2011, , 75-84.	1.3	6
56	Animal Cognition: Multi-modal Interactions in Ant Learning. Current Biology, 2010, 20, R639-R640.	3.9	77
57	Image-matching during ant navigation occurs through saccade-like body turns controlled by learned visual features. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16348-16353.	7.1	100
58	A Motor Component to the Memories of Habitual Foraging Routes in Wood Ants?. Current Biology, 2009, 19, 115-121.	3.9	42
59	Ants use the panoramic skyline as a visual cue during navigation. Current Biology, 2009, 19, R935-R937.	3.9	204
60	What can be learnt from analysing insect orientation flights using probabilistic SLAM?. Biological Cybernetics, 2009, 101, 169-182.	1.3	16
61	Which portion of the natural panorama is used for view-based navigation in the Australian desert ant?. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2009, 195, 681-689.	1.6	76
62	Linked Local Visual Navigation and Robustness to Motor Noise and Route Displacement. Lecture Notes in Computer Science, 2008, , 179-188.	1.3	5
63	Novel landmark-guided routes in ants. Journal of Experimental Biology, 2007, 210, 2025-2032.	1.7	46
64	Linked Local Navigation for Visual Route Guidance. Adaptive Behavior, 2007, 15, 257-271.	1.9	50
65	The co-activation of snapshot memories in wood ants. Journal of Experimental Biology, 2007, 210, 2128-2136.	1.7	10
66	Applying the Grid to 3D capture technology. Concurrency Computation Practice and Experience, 2007, 19, 235-249.	2.2	0
67	HPC-Europa single point of access as a framework for building science gateways. Concurrency Computation Practice and Experience, 2007, 19, 851-866.	2.2	4
68	Visual Cues for the Retrieval of Landmark Memories by Navigating Wood Ants. Current Biology, 2007, 17, 93-102.	3.9	67
69	Dynamic reconfiguration for management of radiation-induced faults in FPGAs. International Journal of Embedded Systems, 2006, 2, 28.	0.3	16
70	Navigational Memories in Ants and Bees: Memory Retrieval When Selecting and Following Routes. Advances in the Study of Behavior, 2006, 36, 123-172.	1.6	87
71	Bi-directional route learning in wood ants. Journal of Experimental Biology, 2006, 209, 3677-3684.	1.7	43
72	Priming of visual route memories. Nature, 2005, 438, 302-302.	27.8	90

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73	Switching destinations: memory change in wood ants. Journal of Experimental Biology, 2004, 207, 2401-2408.	1.7	21
74	The binding and recall of snapshot memories in wood ants (Formica rufa L.). Journal of Experimental Biology, 2004, 207, 393-398.	1.7	47
75	Animal Navigation: Path Integration, Visual Landmarks and Cognitive Maps. Current Biology, 2004, 14, R475-R477.	3.9	109
76	Route learning by insects. Current Opinion in Neurobiology, 2003, 13, 718-725.	4.2	125
77	Snapshot Memories and Landmark Guidance in Wood Ants. Current Biology, 2003, 13, 1614-1618.	3.9	67
78	The influence of beacon-aiming on the routes of wood ants. Journal of Experimental Biology, 2003, 206, 535-541.	1.7	102
79	View-based navigation in insects: how wood ants (Formica rufaL.) look at and are guided by extended landmarks. Journal of Experimental Biology, 2002, 205, 2499-2509.	1.7	76
80	View-based navigation in insects: how wood ants (Formica rufa L.) look at and are guided by extended landmarks. Journal of Experimental Biology, 2002, 205, 2499-509.	1.7	62
81	A Situated and Embodied Model of Ant Route Navigation. , 0, , .		0