

Andrew D Straw

List of Publications by Year in descending order

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Version: 2024-02-01

39
papers

3,431
citations

236925

25
h-index

395702

33
g-index

45
all docs

45
docs citations

45
times ranked

3371
citing authors

#	ARTICLE	IF	CITATIONS
1	Automated image-based tracking and its application in ecology. Trends in Ecology and Evolution, 2014, 29, 417-428.	8.7	407
2	Active flight increases the gain of visual motion processing in <i>Drosophila</i> . Nature Neuroscience, 2010, 13, 393-399.	14.8	391
3	Vision Egg: An Open-Source Library for Realtime Visual Stimulus Generation. Frontiers in Neuroinformatics, 2008, 2, 4.	2.5	221
4	Virtual reality for freely moving animals. Nature Methods, 2017, 14, 995-1002.	19.0	213
5	A Simple Vision-Based Algorithm for Decision Making in Flying <i>Drosophila</i> . Current Biology, 2008, 18, 464-470.	3.9	201
6	Multi-camera real-time three-dimensional tracking of multiple flying animals. Journal of the Royal Society Interface, 2011, 8, 395-409.	3.4	178
7	Visual control of flight speed in <i>Drosophila melanogaster</i> . Journal of Experimental Biology, 2009, 212, 1120-1130.	1.7	140
8	Flying <i>Drosophila</i> stabilize their vision-based velocity controller by sensing wind with their antennae. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1182-91.	7.1	130
9	Circadian and Circalunar Clock Interactions in a Marine Annelid. Cell Reports, 2013, 5, 99-113.	6.4	128
10	FlyMAD: rapid thermogenetic control of neuronal activity in freely walking <i>Drosophila</i> . Nature Methods, 2014, 11, 756-762.	19.0	128
11	A 'bright zone' in male hoverfly (<i>Eristalis tenax</i>) eyes and associated faster motion detection and increased contrast sensitivity. Journal of Experimental Biology, 2006, 209, 4339-4354.	1.7	122
12	TrackFly: Virtual reality for a behavioral system analysis in free-flying fruit flies. Journal of Neuroscience Methods, 2008, 171, 110-117.	2.5	109
13	Integrative Model of <i>Drosophila</i> Flight. AIAA Journal, 2008, 46, 2150-2164.	2.6	100
14	A neurodevelopmental origin of behavioral individuality in the <i>Drosophila</i> visual system. Science, 2020, 367, 1112-1119.	12.6	97
15	Visual Control of Altitude in Flying <i>Drosophila</i> . Current Biology, 2010, 20, 1550-1556.	3.9	83
16	Automatic Segmentation of <i>Drosophila</i> Neural Compartments Using GAL4 Expression Data Reveals Novel Visual Pathways. Current Biology, 2016, 26, 1943-1954.	3.9	76
17	Active and Passive Antennal Movements during Visually Guided Steering in Flying <i>Drosophila</i> . Journal of Neuroscience, 2011, 31, 6900-6914.	3.6	70
18	Motmot, an open-source toolkit for realtime video acquisition and analysis. Source Code for Biology and Medicine, 2009, 4, 5.	1.7	65

#	ARTICLE	IF	CITATIONS
19	Object preference by walking fruit flies, <i>Drosophila melanogaster</i> , is mediated by vision and graviperception. <i>Journal of Experimental Biology</i> , 2010, 213, 2494-2506.	1.7	62
20	An Integrative Model of Insect Flight Control (Invited). , 2006, , .		60
21	Contrast sensitivity of insect motion detectors to natural images. <i>Journal of Vision</i> , 2008, 8, 32.	0.3	57
22	Morphology, muscle capacity, skill, and maneuvering ability in hummingbirds. <i>Science</i> , 2018, 359, 653-657.	12.6	56
23	Discriminating External and Internal Causes for Heading Changes in Freely Flying <i>Drosophila</i> . <i>PLoS Computational Biology</i> , 2013, 9, e1002891.	3.2	52
24	Velocity constancy and models for wide-field visual motion detection in insects. <i>Biological Cybernetics</i> , 2005, 93, 275-287.	1.3	43
25	Asymmetric Processing of Visual Motion for Simultaneous Object and Background Responses. <i>Current Biology</i> , 2014, 24, 2913-2919.	3.9	39
26	Context-dependent stimulus presentation to freely moving animals in 3D. <i>Journal of Neuroscience Methods</i> , 2004, 135, 149-157.	2.5	31
27	Burst muscle performance predicts the speed, acceleration, and turning performance of Anna's hummingbirds. <i>ELife</i> , 2015, 4, e11159.	6.0	29
28	The olfactory gating of visual preferences to human skin and visible spectra in mosquitoes. <i>Nature Communications</i> , 2022, 13, 555.	12.8	29
29	Reverse Engineering Animal Vision with Virtual Reality and Genetics. <i>Computer</i> , 2014, 47, 38-45.	1.1	22
30	Biologically Inspired Feedback Design for <i>Drosophila</i> Flight. <i>Proceedings of the American Control Conference</i> , 2007, , .	0.0	14
31	A bio-plausible design for visual pose stabilization. , 2010, , .		12
32	Mechanical Constraints on Flight at High Elevation Decrease Maneuvering Performance of Hummingbirds. <i>Current Biology</i> , 2016, 26, 3368-3374.	3.9	12
33	Diurnal and nocturnal mosquitoes escape looming threats using distinct flight strategies. <i>Current Biology</i> , 2022, 32, 1232-1246.e5.	3.9	11
34	Implementation of visual motion detection with contrast adaptation. , 2001, , .		9
35	Effect of spatial sampling on pattern noise in insect-based motion detection. , 2005, , .		7
36	A real-time helicopter testbed for insect-inspired visual flight control. , 2009, , .		7

#	ARTICLE	IF	CITATIONS
37	Review of Methods for Animal Videography Using Camera Systems that Automatically Move to Follow the Animal. Integrative and Comparative Biology, 2021, 61, 917-925.	2.0	6
38	Motion blur applied to eliminate artifacts in apparent motion displays. Journal of Vision, 2010, 3, 782-782.	0.3	4
39	Effects of compressive nonlinearity on insect-based motion detection. , 2005, , .		0