

Jeremy E Niven

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

4,106
citations

218381

26
h-index

128067

60
g-index

76
all docs

76
docs citations

76
times ranked

4710
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy limitation as a selective pressure on the evolution of sensory systems. <i>Journal of Experimental Biology</i> , 2008, 211, 1792-1804.	0.8	841
2	Are Bigger Brains Better?. <i>Current Biology</i> , 2009, 19, R995-R1008.	1.8	542
3	Why Do Axons Differ in Caliber?. <i>Journal of Neuroscience</i> , 2012, 32, 626-638.	1.7	328
4	Conserved Regulation of Cardiac Calcium Uptake by Peptides Encoded in Small Open Reading Frames. <i>Science</i> , 2013, 341, 1116-1120.	6.0	311
5	Fly Photoreceptors Demonstrate Energy-Information Trade-Offs in Neural Coding. <i>PLoS Biology</i> , 2007, 5, e116.	2.6	218
6	Action Potential Energy Efficiency Varies Among Neuron Types in Vertebrates and Invertebrates. <i>PLoS Computational Biology</i> , 2010, 6, e1000840.	1.5	216
7	Do insect metabolic rates at rest and during flight scale with body mass?. <i>Biology Letters</i> , 2005, 1, 346-349.	1.0	110
8	Neuronal energy consumption: biophysics, efficiency and evolution. <i>Current Opinion in Neurobiology</i> , 2016, 41, 129-135.	2.0	96
9	Miniaturization of Nervous Systems and Neurons. <i>Current Biology</i> , 2012, 22, R323-R329.	1.8	88
10	The contribution of Shaker K ⁺ channels to the information capacity of <i>Drosophila</i> photoreceptors. <i>Nature</i> , 2003, 421, 630-634.	13.7	84
11	Mushroom Bodies Are Required for Learned Visual Navigation, but Not for Innate Visual Behavior, in <i>Ants</i> . <i>Current Biology</i> , 2020, 30, 3438-3443.e2.	1.8	81
12	The Effect of Cell Size and Channel Density on Neuronal Information Encoding and Energy Efficiency. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1465-1473.	2.4	80
13	Balanced Excitatory and Inhibitory Synaptic Currents Promote Efficient Coding and Metabolic Efficiency. <i>PLoS Computational Biology</i> , 2013, 9, e1003263.	1.5	77
14	Robustness of Neural Coding in <i>Drosophila</i> Photoreceptors in the Absence of Slow Delayed Rectifier K ⁺ Channels. <i>Journal of Neuroscience</i> , 2006, 26, 2652-2660.	1.7	61
15	Understanding the mental health of doctoral researchers: a mixed methods systematic review with meta-analysis and meta-synthesis. <i>Systematic Reviews</i> , 2020, 9, 197.	2.5	61
16	The allometry of CNS size and consequences of miniaturization in orb-weaving and cleptoparasitic spiders. <i>Arthropod Structure and Development</i> , 2011, 40, 521-529.	0.8	51
17	The rapid mandible strike of a termite soldier. <i>Current Biology</i> , 2008, 18, R1049-R1050.	1.8	50
18	Strength of forelimb lateralization predicts motor errors in an insect. <i>Biology Letters</i> , 2016, 12, 20160547.	1.0	48

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19	Brains, islands and evolution: breaking all the rules. <i>Trends in Ecology and Evolution</i> , 2007, 22, 57-59.	4.2	47
20	Associative olfactory learning in the desert locust, <i>Schistocerca gregaria</i> . <i>Journal of Experimental Biology</i> , 2011, 214, 2495-2503.	0.8	47
21	Visual Targeting of Forelimbs in Ladder-Walking Locusts. <i>Current Biology</i> , 2010, 20, 86-91.	1.8	43
22	Consequences of Converting Graded to Action Potentials upon Neural Information Coding and Energy Efficiency. <i>PLoS Computational Biology</i> , 2014, 10, e1003439.	1.5	41
23	Larval exposure to field-realistic concentrations of clothianidin has no effect on development rate, over-winter survival or adult metabolic rate in a solitary bee, <i>Osmia bicornis</i> . <i>PeerJ</i> , 2017, 5, e3417.	0.9	37
24	Insights into the evolution of lateralization from the insects. <i>Progress in Brain Research</i> , 2018, 238, 3-31.	0.9	36
25	A unified mechanism for innate and learned visual landmark guidance in the insect central complex. <i>PLoS Computational Biology</i> , 2021, 17, e1009383.	1.5	28
26	Brain Evolution: Getting Better All the Time?. <i>Current Biology</i> , 2005, 15, R624-R626.	1.8	27
27	A long-latency aversive learning mechanism enables locusts to avoid odours associated with the consequences of ingesting toxic food. <i>Journal of Experimental Biology</i> , 2012, 215, 1711-1719.	0.8	27
28	Differential scaling within an insect compound eye. <i>Biology Letters</i> , 2016, 12, 20160042.	1.0	26
29	Individual-level, context-dependent handedness in the desert locust. <i>Current Biology</i> , 2014, 24, R382-R383.	1.8	24
30	Shaker K+ Channels Contribute Early Nonlinear Amplification to the Light Response in <i>Drosophila</i> Photoreceptors. <i>Journal of Neurophysiology</i> , 2003, 90, 2014-2021.	0.9	23
31	Environmental Adaptation, Phenotypic Plasticity, and Associative Learning in Insects: The Desert Locust as a Case Study. <i>Integrative and Comparative Biology</i> , 2016, 56, 914-924.	0.9	21
32	Evolution: Convergent Eye Losses in Fishy Circumstances. <i>Current Biology</i> , 2008, 18, R27-R29.	1.8	20
33	Evolving understanding of nervous system evolution. <i>Current Biology</i> , 2016, 26, R937-R941.	1.8	20
34	Phenotypic Transformation Affects Associative Learning in the Desert Locust. <i>Current Biology</i> , 2013, 23, 2407-2412.	1.8	18
35	Colony-Level Differences in the Scaling Rules Governing Wood Ant Compound Eye Structure. <i>Scientific Reports</i> , 2016, 6, 24204.	1.6	17
36	Interactions Between Light-Induced Currents, Voltage-Gated Currents, and Input Signal Properties in <i>Drosophila</i> Photoreceptors. <i>Journal of Neurophysiology</i> , 2004, 91, 2696-2706.	0.9	16

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37	Nationwide assessment of the mental health of UK Doctoral Researchers. Humanities and Social Sciences Communications, 2021, 8, .	1.3	16
38	Reuse of identified neurons in multiple neural circuits. Behavioral and Brain Sciences, 2010, 33, 285-285.	0.4	15
39	Visually targeted reaching in horse-head grasshoppers. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3697-3705.	1.2	14
40	How Honeybees Break a Decision-Making Deadlock. Science, 2012, 335, 43-44.	6.0	14
41	Lessons in Lateralisation from the Insects. Trends in Ecology and Evolution, 2018, 33, 486-488.	4.2	13
42	Larval nutrition impacts survival to adulthood, body size and the allometric scaling of metabolic rate in adult honeybees. Journal of Experimental Biology, 2021, 224, .	0.8	13
43	Lateralization of short- and long-term visual memories in an insect. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200677.	1.2	12
44	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
45	Visual associative learning in wood ants. Journal of Experimental Biology, 2018, 221, .	0.8	11
46	Prey speed influences the speed and structure of the raptorial strike of a "sit-and-wait" predator. Biology Letters, 2020, 16, 20200098.	1.0	11
47	Shunt peaking in neural membranes. Journal of the Royal Society Interface, 2016, 13, 20160719.	1.5	10
48	Artificial lighting impairs mate attraction in a nocturnal capital breeder. Journal of Experimental Biology, 2020, 223, .	0.8	10
49	Personal, social and relational predictors of UK postgraduate researcher mental health problems. BJPsych Open, 2021, 7, .	0.3	9
50	Neural Evolution: Costing the Benefits of Eye Loss. Current Biology, 2015, 25, R840-R841.	1.8	8
51	A motion compensation treadmill for untethered wood ants (<i>Formica rufa</i>): evidence for transfer of orientation memories from free-walking training. Journal of Experimental Biology, 2020, 223, .	0.8	8
52	Voltage-dependent K ⁺ channels improve the energy efficiency of signalling in blowfly photoreceptors. Journal of the Royal Society Interface, 2017, 14, 20160938.	1.5	7
53	Visual Motion: Homing in on Small Target Detectors. Current Biology, 2006, 16, R292-R294.	1.8	6
54	Invertebrate Memory: Wide-Eyed Ants Retrieve Visual Snapshots. Current Biology, 2007, 17, R85-R87.	1.8	6

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55	Conservative whole-organ scaling contrasts with highly labile suborgan scaling differences among compound eyes of closely related <i>Formica</i> ants. <i>Ecology and Evolution</i> , 2017, 7, 1663-1673.	0.8	6
56	Understanding suicidality and reasons for living amongst Doctoral Researchers: A thematic analysis of qualitative UDOC survey data. <i>Counselling and Psychotherapy Research</i> , 2021, 21, 757.	1.7	6
57	Sex differences in morphology across an expanding range edge in the flightless ground beetle, <i>Carabus hortensis</i> . <i>Ecology and Evolution</i> , 2021, 11, 9949-9957.	0.8	5
58	Sex-specific covariance between metabolic rate, behaviour and morphology in the ground beetle <i>Carabus hortensis</i> . <i>PeerJ</i> , 2021, 9, e12455.	0.9	5
59	Visuomotor Control: <i>Drosophila</i> Bridges the Gap. <i>Current Biology</i> , 2010, 20, R309-R311.	1.8	4
60	Modulation of voltage-dependent K ⁺ conductances in photoreceptors trades off investment in contrast gain for bandwidth. <i>PLoS Computational Biology</i> , 2018, 14, e1006566.	1.5	4
61	Metabolic rate scaling, ventilation patterns and respiratory water loss in red wood ants: activity drives ventilation changes, metabolic rate drives water loss. <i>Journal of Experimental Biology</i> , 2018, 221, .	0.8	4
62	Malpighamoeba infection compromises fluid secretion and P-glycoprotein detoxification in Malpighian tubules. <i>Scientific Reports</i> , 2020, 10, 15953.	1.6	4
63	Invertebrate Neurobiology: Visual Direction of Arm Movements in an Octopus. <i>Current Biology</i> , 2011, 21, R217-R218.	1.8	3
64	Neural Energetics: Hungry Flies Turn Down the Visual Gain. <i>Current Biology</i> , 2014, 24, R313-R315.	1.8	2
65	Neural Evolution: Marginal Gains through Soma Location. <i>Current Biology</i> , 2015, 25, R330-R332.	1.8	2
66	Matched Short-Term Depression and Recovery Encodes Interspike Interval at a Central Synapse. <i>Scientific Reports</i> , 2018, 8, 13629.	1.6	1
67	A ROLE FOR SENSORY INPUTS IN THE GENERATION OF THE FLIGHT MOTOR PATTERN. <i>Journal of Experimental Biology</i> , 2012, 215, 197-199.	0.8	0
68	Invertebrate Neurobiology: Short-Term Memories for Limb Targeting. <i>Current Biology</i> , 2013, 23, R324-R326.	1.8	0
69	Evolution of the Nervous System in Relation to Behavior. , 2019, , 33-40.		0