

Tom Baden

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8525749/publications.pdf>

Version: 2024-02-01

57
papers

3,785
citations

279798

23
h-index

168389

53
g-index

88
all docs

88
docs citations

88
times ranked

3418
citing authors

#	ARTICLE	IF	CITATIONS
1	The functional diversity of retinal ganglion cells in the mouse. <i>Nature</i> , 2016, 529, 345-350.	27.8	788
2	Retinal bipolar cells: elementary building blocks of vision. <i>Nature Reviews Neuroscience</i> , 2014, 15, 507-519.	10.2	374
3	Open Labware: 3-D Printing Your Own Lab Equipment. <i>PLoS Biology</i> , 2015, 13, e1002086.	5.6	239
4	Inhibition decorrelates visual feature representations in the inner retina. <i>Nature</i> , 2017, 542, 439-444.	27.8	225
5	Understanding the retinal basis of vision across species. <i>Nature Reviews Neuroscience</i> , 2020, 21, 5-20.	10.2	191
6	A Tale of Two Retinal Domains: Near-Optimal Sampling of Achromatic Contrasts in Natural Scenes through Asymmetric Photoreceptor Distribution. <i>Neuron</i> , 2013, 80, 1206-1217.	8.1	162
7	Zebrafish Differentially Process Color across Visual Space to Match Natural Scenes. <i>Current Biology</i> , 2018, 28, 2018-2032.e5.	3.9	161
8	Benchmarking Spike Rate Inference in Population Calcium Imaging. <i>Neuron</i> , 2016, 90, 471-482.	8.1	154
9	Spikes in Mammalian Bipolar Cells Support Temporal Layering of the Inner Retina. <i>Current Biology</i> , 2013, 23, 48-52.	3.9	137
10	The $\hat{\alpha}$ -100 lab: A 3D-printable open-source platform for fluorescence microscopy, optogenetics, and accurate temperature control during behaviour of zebrafish, <i>Drosophila</i> , and <i>Caenorhabditis elegans</i> . <i>PLoS Biology</i> , 2017, 15, e2002702.	5.6	135
11	Fovea-like Photoreceptor Specializations Underlie Single UV Cone Driven Prey-Capture Behavior in Zebrafish. <i>Neuron</i> , 2020, 107, 320-337.e6.	8.1	91
12	The Retinal Basis of Vertebrate Color Vision. <i>Annual Review of Vision Science</i> , 2019, 5, 177-200.	4.4	86
13	Leveraging open hardware to alleviate the burden of COVID-19 on global health systems. <i>PLoS Biology</i> , 2020, 18, e3000730.	5.6	74
14	Spikes in Retinal Bipolar Cells Phase-Lock to Visual Stimuli with Millisecond Precision. <i>Current Biology</i> , 2011, 21, 1859-1869.	3.9	66
15	In vivo evidence that retinal bipolar cells generate spikes modulated by light. <i>Nature Neuroscience</i> , 2011, 14, 951-952.	14.8	56
16	Spikes and ribbon synapses in early vision. <i>Trends in Neurosciences</i> , 2013, 36, 480-488.	8.6	56
17	An arbitrary-spectrum spatial visual stimulator for vision research. <i>ELife</i> , 2019, 8, .	6.0	51
18	A Synaptic Mechanism for Temporal Filtering of Visual Signals. <i>PLoS Biology</i> , 2014, 12, e1001972.	5.6	44

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19	General features of inhibition in the inner retina. <i>Journal of Physiology</i> , 2017, 595, 5507-5515.	2.9	37
20	Zebrafish Retinal Ganglion Cells Asymmetrically Encode Spectral and Temporal Information across Visual Space. <i>Current Biology</i> , 2020, 30, 2927-2942.e7.	3.9	37
21	Bridging the Gap: establishing the necessary infrastructure and knowledge for teaching and research in neuroscience in Africa. <i>Metabolic Brain Disease</i> , 2014, 29, 217-220.	2.9	33
22	Type-specific dendritic integration in mouse retinal ganglion cells. <i>Nature Communications</i> , 2020, 11, 2101.	12.8	30
23	The retinal basis of vision in chicken. <i>Seminars in Cell and Developmental Biology</i> , 2020, 106, 106-115.	5.0	28
24	Primary Afferent Depolarization and Frequency Processing in Auditory Afferents. <i>Journal of Neuroscience</i> , 2010, 30, 14862-14869.	3.6	27
25	Openspritzer: an open hardware pressure ejection system for reliably delivering picolitre volumes. <i>Scientific Reports</i> , 2017, 7, 2188.	3.3	27
26	Ancestral circuits for vertebrate color vision emerge at the first retinal synapse. <i>Science Advances</i> , 2021, 7, eabj6815.	10.3	26
27	Studying a Light Sensor with Light: Multiphoton Imaging in the Retina. <i>Neuromethods</i> , 2019, , 225-250.	0.3	25
28	GABAA Receptors Containing the $\gamma 2$ Subunit Are Critical for Direction-Selective Inhibition in the Retina. <i>PLoS ONE</i> , 2012, 7, e35109.	2.5	22
29	Neurite-specific Ca ²⁺ dynamics underlying sound processing in an auditory interneurone. <i>Developmental Neurobiology</i> , 2007, 67, 68-80.	3.0	21
30	Local Signals in Mouse Horizontal Cell Dendrites. <i>Current Biology</i> , 2017, 27, 3603-3615.e5.	3.9	20
31	Circuit mechanisms for colour vision in zebrafish. <i>Current Biology</i> , 2021, 31, R807-R820.	3.9	20
32	Spherical arena reveals optokinetic response tuning to stimulus location, size, and frequency across entire visual field of larval zebrafish. <i>ELife</i> , 2021, 10, .	6.0	17
33	Front leg movements and tibial motoneurons underlying auditory steering in the cricket (<i>Gryllus</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 15	1.7	15
34	Colourfulness as a possible measure of object proximity in the larval zebrafish brain. <i>Current Biology</i> , 2021, 31, R235-R236.	3.9	15
35	African neuroscience on the global stage: Nigeria as a model. <i>European Journal of Neuroscience</i> , 2019, 49, 1544-1551.	2.6	14
36	Two decades of neuroscience publication trends in Africa. <i>Nature Communications</i> , 2021, 12, 3429.	12.8	14

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37	Species-specific motion detectors. <i>Nature</i> , 2016, 535, 45-46.	27.8	13
38	A low-cost hyperspectral scanner for natural imaging and the study of animal colour vision above and under water. <i>Scientific Reports</i> , 2019, 9, 10799.	3.3	13
39	Neurite-specific Ca ²⁺ dynamics underlying sound processing in an auditory interneurone. <i>Journal of Neurobiology</i> , 2007, 67, 68-80.	3.6	13
40	Vertebrate vision: Lessons from non-model species. <i>Seminars in Cell and Developmental Biology</i> , 2020, 106, 1-4.	5.0	12
41	LED Zappelin™: An open source LED controller for arbitrary spectrum visual stimulation and optogenetics during 2-photon imaging. <i>HardwareX</i> , 2020, 8, e00127.	2.2	11
42	Distinct synaptic transfer functions in same-type photoreceptors. <i>ELife</i> , 2021, 10, .	6.0	10
43	Dynamics of free intracellular Ca ²⁺ during synaptic and spike activity of cricket tibial motoneurons. <i>European Journal of Neuroscience</i> , 2009, 29, 1357-1368.	2.6	9
44	Imaging Ca ²⁺ Dynamics in Cone Photoreceptor Axon Terminals of the Mouse Retina. <i>Journal of Visualized Experiments</i> , 2015, , e52588.	0.3	9
45	Early Vision: Where (Some of) the Magic Happens. <i>Current Biology</i> , 2013, 23, R1096-R1098.	3.9	8
46	TREND in Africa: Toward a Truly Global (Neuro)science Community. <i>Neuron</i> , 2020, 107, 412-416.	8.1	8
47	Visual Neuroscience: A Retinal Ganglion Cell to Report Image Focus?. <i>Current Biology</i> , 2017, 27, R139-R141.	3.9	7
48	Spectral inference reveals principal cone-integration rules of the zebrafish inner retina. <i>Current Biology</i> , 2021, 31, 5214-5226.e4.	3.9	6
49	Spikeling: A low-cost hardware implementation of a spiking neuron for neuroscience teaching and outreach. <i>PLoS Biology</i> , 2018, 16, e2006760.	5.6	4
50	Motion Vision: A New Mechanism in the Mammalian Retina. <i>Current Biology</i> , 2019, 29, R933-R935.	3.9	4
51	What the Zebrafish's Eye Tells the Zebrafish's Brain: Retinal Ganglion Cells for Prey Capture and Colour Vision. <i>SSRN Electronic Journal</i> , 0, , .	0.4	4
52	Non-telecentric two-photon microscopy for 3D random access mesoscale imaging. <i>Nature Communications</i> , 2022, 13, 544.	12.8	4
53	Is our retina really upside down?. <i>Current Biology</i> , 2022, 32, R300-R303.	3.9	4
54	Retinal Physiology: Non-Bipolar-Cell Excitatory Drive in the Inner Retina. <i>Current Biology</i> , 2016, 26, R706-R708.	3.9	2

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55	Zebrafish Differentially Process Colour Across Visual Space to Match Natural Scenes. SSRN Electronic Journal, 0, , .	0.4	2
56	Motorische Kontrolle der akustischen Orientierung von Grillen. E-Neuroforum, 2008, 14, 267-273.	0.1	0
57	Neurowissenschaften in Afrika – Kooperationen und Perspektiven. E-Neuroforum, 2013, 19, 73-74.	0.1	0