Thomas Euler

List of Publications by Year
in descending order

78 papers	7,559 citations	87723 38 h-index	85405 71 g-index
108 all docs	108 docs citations	108 times ranked	5134 citing authors

#	Article	IF	Citations
1	The functional diversity of retinal ganglion cells in the mouse. Nature, 2016, 529, 345-350.	13.7	788
2	Directionally selective calcium signals in dendrites of starburst amacrine cells. Nature, 2002, 418, 845-852.	13.7	533
3	Retinal bipolar cells: elementary building blocks of vision. Nature Reviews Neuroscience, 2014, 15, 507-519.	4.9	374
4	Immunocytochemical identification of cone bipolar cells in the rat retina. Journal of Comparative Neurology, 1995, 361, 461-478.	0.9	327
5	The Primordial, Blue-Cone Color System of the Mouse Retina. Journal of Neuroscience, 2005, 25, 5438-5445.	1.7	256
6	Open Labware: 3-D Printing Your Own Lab Equipment. PLoS Biology, 2015, 13, e1002086.	2.6	239
7	Light-Evoked Responses of Bipolar Cells in a Mammalian Retina. Journal of Neurophysiology, 2000, 83, 1817-1829.	0.9	228
8	Inhibition decorrelates visual feature representations in the inner retina. Nature, 2017, 542, 439-444.	13.7	225
9	Seeing Things in Motion: Models, Circuits, and Mechanisms. Neuron, 2011, 71, 974-994.	3.8	223
10	Functional Fluorescent Ca2+ Indicator Proteins in Transgenic Mice under TET Control. PLoS Biology, 2004, 2, e163.	2.6	216
11	Functional Stability of Retinal Ganglion Cells after Degeneration-Induced Changes in Synaptic Input. Journal of Neuroscience, 2008, 28, 6526-6536.	1.7	202
12	Glutamate Responses of Bipolar Cells in a Slice Preparation of the Rat Retina. Journal of Neuroscience, 1996, 16, 2934-2944.	1.7	191
13	Identification of a Common Non-Apoptotic Cell Death Mechanism in Hereditary Retinal Degeneration. PLoS ONE, 2014, 9, e112142.	1.1	191
14	Understanding the retinal basis of vision across species. Nature Reviews Neuroscience, 2020, 21, 5-20.	4.9	191
15	A Tale of Two Retinal Domains: Near-Optimal Sampling of Achromatic Contrasts in Natural Scenes through Asymmetric Photoreceptor Distribution. Neuron, 2013, 80, 1206-1217.	3.8	162
16	Direction-Selective Dendritic Action Potentials in Rabbit Retina. Neuron, 2005, 47, 739-750.	3.8	158
17	Two-Photon Imaging Reveals Somatodendritic Chloride Gradient in Retinal ON-Type Bipolar Cells Expressing the Biosensor Clomeleon. Neuron, 2006, 49, 81-94.	3.8	154
18	Benchmarking Spike Rate Inference in Population Calcium Imaging. Neuron, 2016, 90, 471-482.	3.8	154

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19	Different Contributions of GABA_Aand GABA_CReceptors to Rod and Cone Bipolar Cells in a Rat Retinal Slice Preparation. Journal of Neurophysiology, 1998, 79, 1384-1395.	0.9	153
20	Eyecup scopeâ€"optical recordings of light stimulus-evoked fluorescence signals in the retina. Pflugers Archiv European Journal of Physiology, 2009, 457, 1393-1414.	1.3	149
21	A Dendrite-Autonomous Mechanism for Direction Selectivity in Retinal Starburst Amacrine Cells. PLoS Biology, 2007, 5, e185.	2.6	139
22	Connectivity map of bipolar cells and photoreceptors in the mouse retina. ELife, 2016, 5, .	2.8	138
23	Spikes in Mammalian Bipolar Cells Support Temporal Layering of the Inner Retina. Current Biology, 2013, 23, 48-52.	1.8	137
24	Spatial order within but not between types of retinal neurons. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 2303-2307.	3.3	122
25	Community-based benchmarking improves spike rate inference from two-photon calcium imaging data. PLoS Computational Biology, 2018, 14, e1006157.	1.5	118
26	Chromatic Bipolar Cell Pathways in the Mouse Retina. Journal of Neuroscience, 2011, 31, 6504-6517.	1.7	115
27	G protein subunit GÎ³13 is coexpressed with GÎ±o, GÎ²3, and GÎ²4 in retinal ON bipolar cells. Journal of Comparative Neurology, 2003, 455, 1-10.	0.9	114
28	Combination of cGMP analogue and drug delivery system provides functional protection in hereditary retinal degeneration. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2997-E3006.	3.3	90
29	Chromatic Coding from Cone-type Unselective Circuits in the Mouse Retina. Neuron, 2013, 77, 559-571.	3.8	88
30	Neural circuits in the mouse retina support color vision in the upper visual field. Nature Communications, 2020, 11, 3481.	5.8	70
31	How do horizontal cells â€˜talkâ€™ to cone photoreceptors? Different levels of complexity at the coneâ€"horizontal cell synapse. Journal of Physiology, 2017, 595, 5495-5506.	1.3	67
32	Bulk electroporation and population calcium imaging in the adult mammalian retina. Journal of Neurophysiology, 2011, 105, 2601-2609.	0.9	61
33	Co-stratification of GABA_A receptors with the directionally selective circuitry of the rat retina. Visual Neuroscience, 1995, 12, 345-358.	0.5	60
34	Dendritic processing. Current Opinion in Neurobiology, 2001, 11, 415-422.	2.0	57
35	Spikes and ribbon synapses in early vision. Trends in Neurosciences, 2013, 36, 480-488.	4.2	56
36	OFF bipolar cells express distinct types of dendritic glutamate receptors in the mouse retina. Neuroscience, 2013, 243, 136-148.	1.1	54

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37	Differential Regulation of Cone Calcium Signals by Different Horizontal Cell Feedback Mechanisms in the Mouse Retina. Journal of Neuroscience, 2014, 34, 11826-11843.	1.7	52
38	Mouse dLGN Receives Functional Input from a Diverse Population of Retinal Ganglion Cells with Limited Convergence. Neuron, 2019, 102, 462-476.e8.	3.8	52
39	Dendritic Calcium Signaling in ON and OFF Mouse Retinal Ganglion Cells. Journal of Neuroscience, 2010, 30, 7127-7138.	1.7	51
40	An arbitrary-spectrum spatial visual stimulator for vision research. ELife, 2019, 8, .	2.8	51
41	Molecular Fingerprinting of Onâ€“Off Direction-Selective Retinal Ganglion Cells Across Species and Relevance to Primate Visual Circuits. Journal of Neuroscience, 2019, 39, 78-95.	1.7	44
42	Synaptic remodeling generates synchronous oscillations in the degenerated outer mouse retina. Frontiers in Neural Circuits, 2014, 8, 108.	1.4	42
43	Function first: classifying cell types and circuits of the retina. Current Opinion in Neurobiology, 2019, 56, 8-15.	2.0	39
44	A novel type of interplexiform amacrine cell in the mouse retina. European Journal of Neuroscience, 2009, 30, 217-228.	1.2	36
45	Light-Driven Calcium Signals in Mouse Cone Photoreceptors. Journal of Neuroscience, 2012, 32, 6981-6994.	1.7	35
46	Natural environment statistics in the upper and lower visual field are reflected in mouse retinal specializations. Current Biology, 2021, 31, 3233-3247.e6.	1.8	35
47	Multiple Independent Oscillatory Networks in the Degenerating Retina. Frontiers in Cellular Neuroscience, 2015, 9, 444.	1.8	33
48	Type-specific dendritic integration in mouse retinal ganglion cells. Nature Communications, 2020, 11, 2101.	5.8	30
49	BK Channels Mediate Pathway-Specific Modulation of Visual Signals in the<i>In Vivo</i>Mouse Retina. Journal of Neuroscience, 2012, 32, 4861-4866.	1.7	28
50	Calcium dynamics change in degenerating cone photoreceptors. Human Molecular Genetics, 2016, 25, 3729-3740.	1.4	28
51	Developmental Regulation and Activity-Dependent Maintenance of GABAergic Presynaptic Inhibition onto Rod Bipolar Cell Axonal Terminals. Neuron, 2013, 78, 124-137.	3.8	25
52	Studying a Light Sensor with Light: Multiphoton Imaging in theÂRetina. Neuromethods, 2019, , 225-250.	0.2	25
53	Systematic spatiotemporal mapping reveals divergent cell death pathways in three mouse models of hereditary retinal degeneration. Journal of Comparative Neurology, 2020, 528, 1113-1139.	0.9	22
54	GABAA Receptors Containing the Î±2 Subunit Are Critical for Direction-Selective Inhibition in the Retina. PLoS ONE, 2012, 7, e35109.	1.1	22

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55	Local Signals in Mouse Horizontal Cell Dendrites. Current Biology, 2017, 27, 3603-3615.e5.	1.8	20
56	Bayesian inference for biophysical neuron models enables stimulus optimization for retinal neuroprosthetics. ELife, 2020, 9, .	2.8	19
57	Toxicity Assessment of Intravitreal Triamcinolone and Bevacizumab in a Retinal Explant Mouse Model Using Two-Photon Microscopy. , 2009, 50, 5880.		17
58	Redefining the role of Ca2+-permeable channels in photoreceptor degeneration using diltiazem. Cell Death and Disease, 2022, 13, 47.	2.7	15
59	The temporal structure of the inner retina at a single glance. Scientific Reports, 2020, 10, 4399.	1.6	14
60	Species-specific motion detectors. Nature, 2016, 535, 45-46.	13.7	13
61	Retinal horizontal cells use different synaptic sites for global feedforward and local feedback signaling. Current Biology, 2022, 32, 545-558.e5.	1.8	11
62	Imaging Ca²⁺ Dynamics in Cone Photoreceptor Axon Terminals of the Mouse Retina. Journal of Visualized Experiments, 2015, , e52588.	0.2	9
63	Early Vision: Where (Some of) the Magic Happens. Current Biology, 2013, 23, R1096-R1098.	1.8	8
64	Bayesian hypothesis testing and experimental design for two-photon imaging data. PLoS Computational Biology, 2019, 15, e1007205.	1.5	7
65	Retinal Processing: Global Players Like It Local. Current Biology, 2010, 20, R486-R488.	1.8	6
66	Connectomics of synaptic microcircuits: lessons from the outer retina. Journal of Physiology, 2017, 595, 5517-5524.	1.3	6
67	Neuronal Diversity In The Retina. E-Neuroforum, 2017, 23, 93-101.	0.2	6
68	Direction-Selective Cells. , 2008, , 413-422.		4
69	Spikeling: A low-cost hardware implementation of a spiking neuron for neuroscience teaching and outreach. PLoS Biology, 2018, 16, e2006760.	2.6	4
70	Non-telecentric two-photon microscopy for 3D random access mesoscale imaging. Nature Communications, 2022, 13, 544.	5.8	4
71	Retinal Physiology: Non-Bipolar-Cell Excitatory Drive in the Inner Retina. Current Biology, 2016, 26, R706-R708.	1.8	2
72	Computation of motion direction in the vertebrate retina. E-Neuroforum, 2012, 18, .	0.2	1

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73	Estimating smooth and sparse neural receptive fields with a flexible spline basis. Neurons, Behavior, Data Analysis, and Theory, 2021, 5, .	1.8	1
74	Wie die Netzhaut die Richtung von Bewegungen berechnet. E-Neuroforum, 2012, 18, 234-245.	0.2	0
75	Neuronale Vielfalt in der Netzhaut. E-Neuroforum, 2017, 23, 114-123.	0.2	0
76	Retinal Circuits for Seeing in the Dark. Neuron, 2019, 104, 435-437.	3.8	0
77	Richard H. Masland (1942â€“2019). Neuron, 2020, 105, 411-412.	3.8	0
78	Mouse dLGN Receives Input from a Diverse Population of Retinal Ganglion Cells with Limited Functional Convergence. SSRN Electronic Journal, 0, , .	0.4	0