Peter Sterling

List of Publications by Year
in descending order

111 papers	9,498 citations	23567 58 h-index	39675 94 g-index
113 all docs	113 docs citations	113 times ranked	5570 citing authors

#	Article	IF	Citations
1	Allostasis: A model of predictive regulation. Physiology and Behavior, 2012, 106, 5-15.	2.1	617
2	Why Do Axons Differ in Caliber?. Journal of Neuroscience, 2012, 32, 626-638.	3.6	328
3	Structure and function of ribbon synapses. Trends in Neurosciences, 2005, 28, 20-29.	8.6	304
4	Microcircuits for Night Vision in Mouse Retina. Journal of Neuroscience, 2001, 21, 8616-8623.	3.6	300
5	Evidence That Vesicles on the Synaptic Ribbon of Retinal Bipolar Neurons Can Be Rapidly Released. Neuron, 1996, 16, 1221-1227.	8.1	269
6	Microcircuitry and Mosaic of a Blueâ€"Yellow Ganglion Cell in the Primate Retina. Journal of Neuroscience, 1998, 18, 3373-3385.	3.6	213
7	How the Optic Nerve Allocates Space, Energy Capacity, and Information. Journal of Neuroscience, 2009, 29, 7917-7928.	3.6	201
8	The Light Response of ON Bipolar Neurons Requires GÎ±o. Journal of Neuroscience, 2000, 20, 9053-9058.	3.6	193
9	How Much the Eye Tells the Brain. Current Biology, 2006, 16, 1428-1434.	3.9	193
10	Localization of mGluR6 to dendrites of ON bipolar cells in primate retina. Journal of Comparative Neurology, 2000, 423, 402-412.	1.6	190
11	M and L cones in macaque fovea connect to midget ganglion cells by different numbers of excitatory synapses. Nature, 1994, 371, 70-72.	27.8	183
12	Bipolar Cells Contribute to Nonlinear Spatial Summation in the Brisk-Transient (Y) Ganglion Cell in Mammalian Retina. Journal of Neuroscience, 2001, 21, 7447-7454.	3.6	176
13	Evidence That Different Cation Chloride Cotransporters in Retinal Neurons Allow Opposite Responses to GABA. Journal of Neuroscience, 2000, 20, 7657-7663.	3.6	171
14	Retina is structured to process an excess of darkness in natural scenes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17368-17373.	7.1	171
15	Anatomical organization of the brachial spinal cord of the cat. II. The motoneuron plexus. Brain Research, 1967, 4, 16-32.	2.2	167
16	Functional Circuitry of the Retinal Ganglion Cell's Nonlinear Receptive Field. Journal of Neuroscience, 1999, 19, 9756-9767.	3.6	165
17	Synaptic termination of afferents from the ventrolateral nucleus of the thalamus in the cat motor cortex. A light and electron microscope study. Journal of Comparative Neurology, 1974, 153, 77-105.	1.6	161
18	Biological basis of stress-related mortality. Social Science & Medicine Part E, Medical Psychology, 1981, 15, 3-42.	0.2	148

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19	Electrical Coupling between Mammalian Cones. Current Biology, 2002, 12, 1900-1907.	3.9	139
20	Anatomical organization of the brachial spinal cord of the cat. III. The propriospinal connections. Brain Research, 1968, 7, 419-443.	2.2	138
21	Visualizing Synaptic Ribbons in the Living Cell. Journal of Neuroscience, 2004, 24, 9752-9759.	3.6	135
22	Macaque Retina Contains an S-Cone OFF Midget Pathway. Journal of Neuroscience, 2003, 23, 9881-9887.	3.6	134
23	Design of a Neuronal Array. Journal of Neuroscience, 2008, 28, 3178-3189.	3.6	132
24	Anatomical organization of the brachial spinal cord of the cat. I. The distribution of dorsal root fibers. Brain Research, 1967, 4, 1-15.	2.2	126
25	A systematic approach to reconstructing microcircuitry by electron microscopy of serial sections. Brain Research Reviews, 1980, 2, 265-293.	9.0	126
26	Allostasis: A Brain-Centered, Predictive Mode of Physiological Regulation. Trends in Neurosciences, 2019, 42, 740-752.	8.6	121
27	Light Response of Retinal ON Bipolar Cells Requires a Specific Splice Variant of GÎ±_o. Journal of Neuroscience, 2002, 22, 4878-4884.	3.6	116
28	Receptive fields and functional architecture in the retina. Journal of Physiology, 2009, 587, 2753-2767.	2.9	116
29	Streamlined Synaptic Vesicle Cycle in Cone Photoreceptor Terminals. Neuron, 2004, 41, 755-766.	8.1	114
30	Microcircuitry of cat visual cortex: Classification of neurons in layer IV of area 17, and identification of the patterns of lateral geniculate input. Journal of Comparative Neurology, 1979, 188, 599-627.	1.6	112
31	Rod bipolar array in the cat retina: Pattern of input from rods and GABA-accumulating amacrine cells. Journal of Comparative Neurology, 1987, 266, 445-455.	1.6	107
32	An electron microscope study of motoneurones and interneurones in the cat abducens nucleus identified by retrograde intraaxonal transport of horseradish peroxidase. Journal of Comparative Neurology, 1977, 176, 65-85.	1.6	105
33	Evidence that Circuits for Spatial and Color Vision Segregate at the First Retinal Synapse. Neuron, 1999, 24, 313-321.	8.1	103
34	Endocytosis and Vesicle Recycling at a Ribbon Synapse. Journal of Neuroscience, 2003, 23, 4092-4099.	3.6	101
35	Gap junctions between the pedicles of macaque foveal cones. Vision Research, 1992, 32, 1809-1815.	1.4	100
36	Absence of spectrally specific lateral inputs to midget ganglion cells in primate retina. Nature, 1996, 381, 613-615.	27.8	98

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37	Neurons in cat lateral geniculate nucleus that concentrate exogenous [3H]-?-aminobutyric acid (GABA). Journal of Comparative Neurology, 1980, 192, 737-749.	1.6	93
38	Evidence That Vesicles Undergo Compound Fusion on the Synaptic Ribbon. Journal of Neuroscience, 2008, 28, 5403-5411.	3.6	93
39	Two types of GABA-accumulating neurons in the superficial gray layer of the cat superior colliculus. Journal of Comparative Neurology, 1982, 206, 180-192.	1.6	92
40	Neurochemistry of the mammalian cone `synaptic complex'. Vision Research, 1998, 38, 1359-1369.	1.4	92
41	Retinal neurons and vessels are not fractal but spaceâ€filling. Journal of Comparative Neurology, 1995, 361, 479-490.	1.6	89
42	Quantitative mapping with the electron microscope: retinal terminals in the superior colliculus. Brain Research, 1973, 54, 347-354.	2.2	87
43	Accumulation of (3H)glycine by cone bipolar neurons in the cat retina. Journal of Comparative Neurology, 1986, 250, 1-7.	1.6	87
44	Subcellular localization of GABAA receptor on bipolar cells in macaque and human retina. Vision Research, 1994, 34, 1235-1246.	1.4	86
45	Cell density ratios in a foveal patch in macaque retina. Visual Neuroscience, 2003, 20, 189-209.	1.0	85
46	Roles of ATP in Depletion and Replenishment of the Releasable Pool of Synaptic Vesicles. Journal of Neurophysiology, 2002, 88, 98-106.	1.8	84
47	Horizontal cells in cat and monkey retina express different isoforms of glutamic acid decarboxylase. Visual Neuroscience, 1994, 11, 135-142.	1.0	83
48	Efficiency of Information Transmission by Retinal Ganglion Cells. Current Biology, 2004, 14, 1523-1530.	3.9	79
49	Natural Images from the Birthplace of the Human Eye. PLoS ONE, 2011, 6, e20409.	2.5	79
50	Microcircuitry and functional architecture of the cat retina. Trends in Neurosciences, 1986, 9, 186-192.	8.6	76
51	Identification of a G-protein in depolarizing rod bipolar cells. Visual Neuroscience, 1993, 10, 473-478.	1.0	72
52	Immunoreactivity to GABAA receptor in the outer plexiform layer of the cat retina. Journal of Comparative Neurology, 1992, 320, 394-397.	1.6	71
53	Cellular Basis for the Response to Second-Order Motion Cues in Y Retinal Ganglion Cells. Neuron, 2001, 32, 711-721.	8.1	69
54	Encoding Light Intensity by the Cone Photoreceptor Synapse. Neuron, 2005, 48, 555-562.	8.1	69

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55	Homeostasis vs Allostasis. JAMA Psychiatry, 2014, 71, 1192.	11.0	67
56	Transmitter Concentration at a Three-Dimensional Synapse. Journal of Neurophysiology, 1998, 80, 3163-3172.	1.8	66
57	AMPA Receptor Activates a G-Protein that Suppresses a cGMP-Gated Current. Journal of Neuroscience, 1999, 19, 2954-2959.	3.6	65
58	Four types of amacrine in the cat retina that accumulate GABA. Journal of Comparative Neurology, 1983, 219, 295-304.	1.6	62
59	Four types of neuron in layer IVab of cat cortical area 17 accumulate3H-GABA. Journal of Comparative Neurology, 1983, 217, 449-457.	1.6	59
60	Microcircuitry for Two Types of Achromatic Ganglion Cell in Primate Fovea. Journal of Neuroscience, 2007, 27, 2646-2653.	3.6	58
61	Effect on the Superior Colliculus of Cortical Removal in Visually Deprived Cats. Nature, 1969, 224, 1032-1033.	27.8	55
62	A Retinal-Specific Regulator of G-Protein Signaling Interacts with GÂo and Accelerates an Expressed Metabotropic Glutamate Receptor 6 Cascade. Journal of Neuroscience, 2004, 24, 5684-5693.	3.6	52
63	Chromatic Properties of Horizontal and Ganglion Cell Responses Follow a Dual Gradient in Cone Opsin Expression. Journal of Neuroscience, 2006, 26, 12351-12361.	3.6	51
64	Functional architecture of primate cone and rod axons. Vision Research, 1998, 38, 2539-2549.	1.4	50
65	Parallel Circuits from Cones to the On-Beta Ganglion Cell. European Journal of Neuroscience, 1992, 4, 506-520.	2.6	47
66	Design of a Trichromatic Cone Array. PLoS Computational Biology, 2010, 6, e1000677.	3.2	47
67	Two ribbon synaptic units in rod photoreceptors of macaque, human, and cat. Journal of Comparative Neurology, 2003, 455, 100-112.	1.6	46
68	Inner S-cone bipolar cells provide all of the central elements for S cones in macaque retina. Journal of Comparative Neurology, 2003, 457, 185-201.	1.6	46
69	Physiology and Morphology of Color-Opponent Ganglion Cells in a Retina Expressing a Dual Gradient of S and M Opsins. Journal of Neuroscience, 2009, 29, 2706-2724.	3.6	46
70	Neurons and glia in cat superior colliculus accumulate [3H] gamma-aminobutyric acid (GABA). Journal of Comparative Neurology, 1981, 202, 385-396.	1.6	45
71	How MÃ¼ller glial cells in macaque fovea coat and isolate the synaptic terminals of cone photoreceptors. Journal of Comparative Neurology, 2002, 453, 100-111.	1.6	44
72	Timing of Quantal Release from the Retinal Bipolar Terminal Is Regulated by a Feedback Circuit. Neuron, 2003, 38, 89-101.	8.1	43

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73	Evidence that certain retinal bipolar cells use both glutamate and GABA. Journal of Comparative Neurology, 2004, 478, 207-218.	1.6	42
74	Mobility and Turnover of Vesicles at the Synaptic Ribbon. Journal of Neuroscience, 2008, 28, 3150-3158.	3.6	40
75	Synaptic Ca2+ in Darkness Is Lower in Rods than Cones, Causing Slower Tonic Release of Vesicles. Journal of Neuroscience, 2007, 27, 5033-5042.	3.6	39
76	Contrast Threshold of a Brisk-Transient Ganglion Cell In Vitro. Journal of Neurophysiology, 2003, 89, 2360-2369.	1.8	38
77	Why Deaths of Despair Are Increasing in the US and Not Other Industrial Nationsâ€"Insights From Neuroscience and Anthropology. JAMA Psychiatry, 2022, 79, 368.	11.0	38
78	Tuning retinal circuits. Nature, 1995, 377, 676-677.	27.8	30
79	Loss of Sensitivity in an Analog Neural Circuit. Journal of Neuroscience, 2009, 29, 3045-3058.	3.6	30
80	Matching neural morphology to molecular expression: Single cell injection following immunostaining. Journal of Neurocytology, 2003, 32, 245-251.	1.5	29
81	Preparing autoradiograms of serial sections for electron microscopy. Journal of Neuroscience Methods, 1979, 1, 179-183.	2.5	28
82	Localization of Type I Inositol 1,4,5-Triphosphate Receptor in the Outer Segments of Mammalian Cones. Journal of Neuroscience, 1999, 19, 4221-4228.	3.6	27
83	ECT damage is easy to find if you look for it. Nature, 2000, 403, 242-242.	27.8	27
84	Different types of ganglion cell share a synaptic pattern. Journal of Comparative Neurology, 2008, 507, 1871-1878.	1.6	27
85	Evidence That Each S Cone in Macaque Fovea Drives One Narrow-Field and Several Wide-Field Blue-Yellow Ganglion Cells. Journal of Neuroscience, 2004, 24, 8366-8378.	3.6	26
86	Ultrastructure of synapses from the A-laminae of the lateral geniculate nucleus in layer IV of the cat striate cortex. Journal of Comparative Neurology, 1987, 260, 63-75.	1.6	24
87	How Retinal Ganglion Cells Prevent Synaptic Noise From Reaching the Spike Output. Journal of Neurophysiology, 2004, 92, 2510-2519.	1.8	23
88	Displaced GAD65 amacrine cells of the guinea pig retina are morphologically diverse. Visual Neuroscience, 2006, 23, 931-939.	1.0	19
89	Sluggish and Brisk Ganglion Cells Detect Contrast With Similar Sensitivity. Journal of Neurophysiology, 2005, 93, 2388-2395.	1.8	16
90	Pattern of lateral geniculate synapses on neuron somata in layer IV of the cat striate cortex. Journal of Comparative Neurology, 1987, 260, 76-86.	1.6	15

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91	cGMP modulates spike responses of retinal ganglion cells via a cGMP-gated current. Visual Neuroscience, 2002, 19, 373-380.	1.0	15
92	Predictive regulation and human design. ELife, 2018, 7, .	6.0	14
93	Microcircuitry of the -beta ganglion cell in daylight, twilight, and starlight. Neuroscience Research Supplement: the Official Journal of the Japan Neuroscience Society, 1987, 6, S269-S285.	0.0	13
94	Granule cells in the rat olfactory tubercle accumulate3H-Î³-aminobutyric acid. Journal of Comparative Neurology, 1983, 215, 465-471.	1.6	11
95	How robust is a neural circuit?. Visual Neuroscience, 2007, 24, 563-571.	1.0	11
96	Some Principles of Retinal Design: The Proctor Lecture. , 2013, 54, 2267.		11
97	How neurons compute direction. Nature, 2002, 420, 375-376.	27.8	8
98	Deciphering the retina's wiring diagram. Nature Neuroscience, 1999, 2, 851-853.	14.8	7
99	cGMP modulates spike responses of retinal ganglion cells via a cGMP-gated current. Visual Neuroscience, 2002, 19, 373-80.	1.0	7
100	Design for a Binary Synapse. Neuron, 2004, 41, 313-315.	8.1	5
101	Cone synapses in macaque fovea: I. Two types of non-S cones are distinguished by numbers of contacts with OFF midget bipolar cells. Visual Neuroscience, 2011, 28, 3-16.	1.0	4
102	â€œKnocking outâ€•a Neural Circuit. Neuron, 1998, 21, 643-644.	8.1	3
103	Needle from a Haystack. Neuron, 2002, 34, 670-672.	8.1	3
104	Cone synapses in macaque fovea: II. Dendrites of OFF midget bipolar cells exhibit Inner Densities similar to their Outer synaptic Densities in basal contacts with cone terminals. Visual Neuroscience, 2011, 28, 17-28.	1.0	3
105	Peter Sterling. Current Biology, 2021, 31, R103-R106.	3.9	1
106	Three-dimensional analysis of retinal neurons identified autoradiographically by utilizing selective uptake of [3H]-GABA: An electron microscope study in the cat. Neuroscience Letters, 1979, 11, 37.	2.1	0
107	The retina. An approachable part of the brain. Cell, 1988, 53, 175-176.	28.9	0
108	<i>Retinal Development</i>, edited by E. Sernagor, S. Eglen, W. Harris, and R. Wong. Visual Neuroscience, 2007, 24, 763-763.	1.0	0

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109	We are all mutts. Current Biology, 2020, 30, R1063-R1064.	3.9	0
110	Richard H. Masland (1942â€"2019). Neuron, 2020, 105, 411-412.	8.1	0
111	Why I joined the Freedom Rides. Current Biology, 2021, 31, R766-R770.	3.9	0