

# Hiroyoshi Miyakawa

## List of Publications by Year in descending order

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Version: 2024-02-01

58  
papers

2,955  
citations

279798

23  
h-index

168389

53  
g-index

59  
all docs

59  
docs citations

59  
times ranked

2650  
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging data analysis using non-negative matrix factorization. <i>Neuroscience Research</i> , 2022, 179, 51-56.	1.9	10
2	Frequency-dependent entrainment of spontaneous Ca transients in the dendritic tufts of CA1 pyramidal cells in rat hippocampal slice preparations by weak AC electric field. <i>Brain Research Bulletin</i> , 2019, 153, 202-213.	3.0	3
3	Automatic Cell Detection from Calcium Imaging Data Using Non-negative Matrix Factorization. <i>Seibutsu Butsuri</i> , 2017, 57, 036-039.	0.1	2
4	Organization of projection neurons and local neurons of the primary auditory center in the fruit fly <i>Drosophila melanogaster</i> . <i>Journal of Comparative Neurology</i> , 2016, 524, 1099-1164.	1.6	61
5	Organization of projection neurons and local neurons of the primary auditory center in the fruit fly <i>Drosophila melanogaster</i> . <i>Journal of Comparative Neurology</i> , 2016, 524, Spc1.	1.6	0
6	Individual differences in sensory responses influence decision making by <i>Drosophila melanogaster</i> larvae on exposure to contradictory cues. <i>Journal of Neurogenetics</i> , 2016, 30, 288-296.	1.4	4
7	Noise-robust recognition of wide-field motion direction and the underlying neural mechanisms in <i>Drosophila melanogaster</i> . <i>Scientific Reports</i> , 2015, 5, 10253.	3.3	5
8	Weak Sinusoidal Electric Fields Entrain Spontaneous Ca Transients in the Dendritic Tufts of CA1 Pyramidal Cells in Rat Hippocampal Slice Preparations. <i>PLoS ONE</i> , 2015, 10, e0122263.	2.5	11
9	A novel behavioral strategy, continuous biased running, during chemotaxis in <i>Drosophila</i> larvae. <i>Neuroscience Letters</i> , 2014, 570, 10-15.	2.1	15
10	Intracellular calcium elevation during plateau potentials mediated by extrasynaptic NMDA receptor activation in rat hippocampal CA1 pyramidal neurons is primarily due to calcium entry through voltage-gated calcium channels. <i>European Journal of Neuroscience</i> , 2014, 39, 1613-1623.	2.6	5
11	Detecting cells using non-negative matrix factorization on calcium imaging data. <i>Neural Networks</i> , 2014, 55, 11-19.	5.9	120
12	Cooperative Integration and Representation Underlying Bilateral Network of Fly Motion-Sensitive Neurons. <i>PLoS ONE</i> , 2014, 9, e85790.	2.5	1
13	Selectivity and Plasticity in a Sound-Evoked Male-Male Interaction in <i>Drosophila</i> . <i>PLoS ONE</i> , 2013, 8, e74289.	2.5	28
14	Experience-dependent Plasticity of the Optomotor Response in <i>Drosophila melanogaster</i> . <i>Developmental Neuroscience</i> , 2012, 34, 533-542.	2.0	8
15	Low-frequency dielectric dispersion of brain tissue due to electrically long neurites. <i>Physical Review E</i> , 2012, 86, 061911.	2.1	10
16	Higher-Order Spike Triggered Analysis of Neural Oscillators. <i>PLoS ONE</i> , 2012, 7, e50232.	2.5	5
17	Measurement of infinitesimal phase response curves from noisy real neurons. <i>Physical Review E</i> , 2011, 84, 041902.	2.1	17
18	Activation of the VIP/VPAC2 system induces reactive astrogliosis associated with increased expression of glutamate transporters. <i>Brain Research</i> , 2011, 1383, 43-53.	2.2	18

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19	Extracellular DC electric fields induce nonuniform membrane polarization in rat hippocampal CA1 pyramidal neurons. <i>Brain Research</i> , 2011, 1383, 22-35.	2.2	28
20	Estimation of Intracellular Calcium Ion Concentration by Nonlinear State Space Modeling and Expectation-Maximization Algorithm for Parameter Estimation. <i>Journal of the Physical Society of Japan</i> , 2010, 79, 124801.	1.6	8
21	An Analytic Solution of the Cable Equation Predicts Frequency Preference of a Passive Shunt-End Cylindrical Cable in Response to Extracellular Oscillating Electric Fields. <i>Biophysical Journal</i> , 2010, 98, 524-533.	0.5	15
22	An analytical solution of the cable equation predicts the frequency preference of a passive non-uniform cylindrical cable in response to extracellular oscillating electrical fields. <i>BMC Neuroscience</i> , 2009, 10, .	1.9	0
23	Steep decrease in the specific membrane resistance in the apical dendrites of hippocampal CA1 pyramidal neurons. <i>Neuroscience Research</i> , 2009, 64, 83-95.	1.9	16
24	Is the Langevin phase equation an efficient model for oscillating neurons?. <i>Journal of Physics: Conference Series</i> , 2009, 197, 012016.	0.4	3
25	A plateau potential mediated by the activation of extrasynaptic NMDA receptors in rat hippocampal CA1 pyramidal neurons. <i>European Journal of Neuroscience</i> , 2008, 28, 521-534.	2.6	24
26	PACAP/PAC1 autocrine system promotes proliferation and astrogenesis in neural progenitor cells. <i>Glia</i> , 2007, 55, 317-327.	4.9	55
27	Paired-pulse ratio of synaptically induced transporter currents at hippocampal CA1 synapses is not related to release probability. <i>Brain Research</i> , 2007, 1154, 71-79.	2.2	28
28	Effects of Bifemelane on the Calcium Level and ATP Release of the Human Origin Astrocyte Clonal Cell. <i>Journal of Pharmacological Sciences</i> , 2006, 102, 121-128.	2.5	3
29	Estimated distribution of specific membrane resistance in hippocampal CA1 pyramidal neuron. <i>Brain Research</i> , 2006, 1125, 199-208.	2.2	18
30	Ca <sup>2+</sup> -Dependent Induction of Intracellular Ca <sup>2+</sup> Oscillation in Hippocampal Astrocytes During Metabotropic Glutamate Receptor Activation. <i>Journal of Pharmacological Sciences</i> , 2005, 97, 212-218.	2.5	14
31	Optical monitoring of progressive synchronization in dentate granule cells during population burst activities. <i>European Journal of Neuroscience</i> , 2005, 21, 3349-3360.	2.6	12
32	Glutamate release increases during mossy-CA3 LTP but not during Schaffer-CA1 LTP. <i>European Journal of Neuroscience</i> , 2004, 19, 1591-1600.	2.6	38
33	Effects of uniform extracellular DC electric fields on excitability in rat hippocampal slices <i>in vitro</i> . <i>Journal of Physiology</i> , 2004, 557, 175-190.	2.9	629
34	Adenosine A1-receptor-mediated tonic inhibition of glutamate release at rat hippocampal CA3-CA1 synapses is primarily due to inhibition of N-type Ca <sup>2+</sup> channels. <i>European Journal of Pharmacology</i> , 2004, 499, 265-274.	3.5	24
35	Novel method for quantification of brain cell swelling in rat hippocampal slices. <i>Journal of Neuroscience Research</i> , 2004, 76, 723-733.	2.9	10
36	NMDA receptor-mediated depolarizing after-potentials in the basal dendrites of CA1 pyramidal neurons. <i>Neuroscience Research</i> , 2004, 48, 325-333.	1.9	16

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37	Effects of Mannitol on Ischemia-Induced Degeneration in Rat Hippocampus. <i>Journal of Pharmacological Sciences</i> , 2004, 95, 341-348.	2.5	7
38	Expression of Group I Metabotropic Glutamate Receptors in Rat Hippocampal Cells in Culture and Their Characterization by Intracellular Calcium Ion Dynamics. <i>Journal of Pharmacological Sciences</i> , 2003, 92, 245-251.	2.5	9
39	Optical Bioimaging: From Living Tissue to a Single Molecule: Optical Detection of Synaptically Induced Glutamate Transporter Activity in Hippocampal Slices. <i>Journal of Pharmacological Sciences</i> , 2003, 93, 234-241.	2.5	1
40	Dendritic attenuation of synaptic potentials in the CA1 region of rat hippocampal slices detected with an optical method. <i>European Journal of Neuroscience</i> , 2001, 13, 1711-1721.	2.6	26
41	GABAergic control of synaptic summation in hippocampal CA1 pyramidal neurons. <i>Hippocampus</i> , 2001, 11, 683-689.	1.9	13
42	Low-threshold potassium channels and a low-threshold calcium channel regulate Ca <sup>2+</sup> spike firing in the dendrites of cerebellar Purkinje neurons: a modeling study. <i>Brain Research</i> , 2001, 891, 106-115.	2.2	105
43	Adverse effects of an active fragment of parathyroid hormone on rat hippocampal organotypic cultures. <i>British Journal of Pharmacology</i> , 2000, 129, 21-28.	5.4	26
44	Optical Detection of Synaptically Induced Glutamate Transport in Hippocampal Slices. <i>Journal of Neuroscience</i> , 1999, 19, 2580-2588.	3.6	97
45	Differential roles of two types of voltage-gated Ca <sup>2+</sup> channels in the dendrites of rat cerebellar Purkinje neurons. <i>Brain Research</i> , 1998, 791, 43-55.	2.2	47
46	Activation of dihydropyridine sensitive Ca <sup>2+</sup> channels in rat hippocampal neurons in culture by parathyroid hormone. <i>Neuroscience Letters</i> , 1998, 256, 139-142.	2.1	12
47	Properties of Calcium Spikes Revealed During GABAA Receptor Antagonism in Hippocampal CA1 Neurons From Guinea Pigs. <i>Journal of Neurophysiology</i> , 1997, 78, 2269-2279.	1.8	17
48	Recent development of image analysis of intracellular Ca <sup>2+</sup> concentration.. <i>Seibutsu Butsuri</i> , 1996, 36, 30-34.	0.1	0
49	Voltage-gated Ca <sup>2+</sup> channel blockers, $\bar{I}\%-\text{AgaIVA}$ and Ni <sup>2+</sup> , suppress the induction of $\hat{I}$ -burst induced long-term potentiation in guinea-pig hippocampal CA1 neurons. <i>Neuroscience Letters</i> , 1995, 183, 112-115.	2.1	49
50	Activation of dopamine D1 receptors enhances long-term depression of synaptic transmission induced by low frequency stimulation in rat hippocampal CA1 neurons. <i>Neuroscience Letters</i> , 1995, 188, 195-198.	2.1	30
51	Adenosine A2 receptor antagonist facilitates the reversal of long-term potentiation (depotential) of evoked postsynaptic potentials but inhibits that of population spikes in hippocampal CA1 neurons. <i>Neuroscience Letters</i> , 1992, 148, 148-150.	2.1	16
52	Synaptically activated increases in Ca <sup>2+</sup> concentration in hippocampal CA1 pyramidal cells are primarily due to voltage-gated Ca <sup>2+</sup> channels. <i>Neuron</i> , 1992, 9, 1163-1173.	8.1	254
53	The spread of Na <sup>+</sup> spikes determines the pattern of dendritic Ca <sup>2+</sup> entry into hippocampal neurons. <i>Nature</i> , 1992, 357, 244-246.	27.8	397
54	Adenosine (A2) antagonist inhibits induction of long-term potentiation of evoked synaptic potentials but not of the population spike in hippocampal CA1 neurons. <i>Biochemical and Biophysical Research Communications</i> , 1991, 181, 1010-1014.	2.1	27

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55	Reversal of long-term potentiation (depotential) induced by tetanus stimulation of the input to CA1 neurons of guinea pig hippocampal slices. Brain Research, 1991, 555, 112-122.	2.2	333
56	High time resolution fluorescence imaging with a CCD camera. Journal of Neuroscience Methods, 1991, 36, 253-261.	2.5	115
57	Requirement of extracellular Ca <sup>2+</sup> after tetanus for induction of long-term potentiation in guinea pig hippocampal slices. Neuroscience Letters, 1987, 77, 176-180.	2.1	31
58	Cytoplasmic calcium elevation in hippocampal granule cell induced by perforant path stimulation and l-glutamate application. Brain Research, 1987, 407, 168-172.	2.2	78