

Daniel J Simons

List of Publications by Year in descending order

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66
papers

5,079
citations

76294

40
h-index

102432

66
g-index

69
all docs

69
docs citations

69
times ranked

2644
citing authors

#	ARTICLE	IF	CITATIONS
1	Feedforward Mechanisms of Excitatory and Inhibitory Cortical Receptive Fields. Journal of Neuroscience, 2002, 22, 10966-10975.	1.7	305
2	Early experience of tactile stimulation influences organization of somatic sensory cortex. Nature, 1987, 326, 694-697.	13.7	293
3	Spatial organization of thalamocortical and corticothalamic projection systems in the rat Sml barrel cortex. Journal of Comparative Neurology, 1989, 285, 325-338.	0.9	240
4	Circuit Dynamics and Coding Strategies in Rodent Somatosensory Cortex. Journal of Neurophysiology, 2000, 83, 1158-1166.	0.9	211
5	Cytochrome oxidase staining in the rat sml barrel cortex. Journal of Comparative Neurology, 1985, 238, 225-235.	0.9	199
6	Task- and Subject-Related Differences in Sensorimotor Behavior during Active Touch. Somatosensory & Motor Research, 1995, 12, 1-9.	0.4	173
7	Morphology of Golgi-Cox-impregnated barrel neurons in rat Sml cortex. Journal of Comparative Neurology, 1984, 230, 119-132.	0.9	168
8	Functional organization in mouse barrel cortex. Brain Research, 1979, 165, 327-332.	1.1	157
9	Multi-whisker stimulation and its effects on vibrissa units in rat Sml barrel cortex. Brain Research, 1983, 276, 178-182.	1.1	156
10	Motor modulation of afferent somatosensory circuits. Nature Neuroscience, 2008, 11, 1430-1438.	7.1	151
11	Robust Temporal Coding in the Trigeminal System. Science, 2004, 304, 1986-1989.	6.0	149
12	Functional Topography of Corticothalamic Feedback Enhances Thalamic Spatial Response Tuning in the Somatosensory Whisker/Barrel System. Neuron, 2004, 41, 639-651.	3.8	145
13	Thalamic and corticocortical connections of the second somatic sensory area of the mouse. Journal of Comparative Neurology, 1987, 265, 409-427.	0.9	138
14	Response Properties of Whisker-Associated Trigeminothalamic Neurons in Rat Nucleus Principalis. Journal of Neurophysiology, 2003, 89, 40-56.	0.9	129
15	A quantitative population model of whisker barrels: Re-examining the Wilson-Cowan equations. Journal of Computational Neuroscience, 1996, 3, 247-264.	0.6	118
16	Thalamocortical Angular Tuning Domains within Individual Barrels of Rat Somatosensory Cortex. Journal of Neuroscience, 2003, 23, 9565-9574.	1.7	117
17	Cortical Damping: Analysis of Thalamocortical Response Transformations in Rodent Barrel Cortex. Cerebral Cortex, 2003, 13, 33-44.	1.6	116
18	Somatotopic Organization of the Second Somatosensory Area (SII) in the Cerebral Cortex of the Mouse. Somatosensory & Motor Research, 1986, 3, 213-237.	2.2	106

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19	Cortical Columnar Processing in the Rat Whisker-to-Barrel System. <i>Journal of Neurophysiology</i> , 1999, 82, 1808-1817.	0.9	100
20	Membrane potential changes in rat Sml cortical neurons evoked by controlled stimulation of mystacial vibrissae. <i>Brain Research</i> , 1988, 448, 186-191.	1.1	93
21	Electromyographic Activity of Mystacial Pad Musculature during Whisking Behavior in the Rat. <i>Somatosensory & Motor Research</i> , 1991, 8, 159-164.	0.4	88
22	Motor Cortex Broadly Engages Excitatory and Inhibitory Neurons in Somatosensory Barrel Cortex. <i>Cerebral Cortex</i> , 2014, 24, 2237-2248.	1.6	85
23	Functional Organization of Mouse and Rat Sml Barrel Cortex following Vibrissal Damage on Different Postnatal Days. <i>Somatosensory & Motor Research</i> , 1984, 1, 207-245.	2.2	84
24	Sensory Loss by Selected Whisker Removal Produces Immediate Disinhibition in the Somatosensory Cortex of Behaving Rats. <i>Journal of Neuroscience</i> , 1999, 19, 9117-9125.	1.7	83
25	Neural Correlation Is Stimulus Modulated by Feedforward Inhibitory Circuitry. <i>Journal of Neuroscience</i> , 2012, 32, 506-518.	1.7	80
26	Functional Independence of Layer IV Barrels in Rodent Somatosensory Cortex. <i>Journal of Neurophysiology</i> , 1999, 82, 1311-1316.	0.9	76
27	Precise Temporal Responses in Whisker Trigeminal Neurons. <i>Journal of Neurophysiology</i> , 2004, 92, 665-668.	0.9	76
28	The Relationship of Vibrissal Motor Cortex Unit Activity to Whisking in the Awake Rat. <i>Somatosensory & Motor Research</i> , 1996, 13, 115-127.	0.4	75
29	Rapid Changes in Thalamic Firing Synchrony during Repetitive Whisker Stimulation. <i>Journal of Neuroscience</i> , 2008, 28, 11153-11164.	1.7	67
30	Texture discrimination and unit recordings in the rat whisker/barrel system. <i>Physiology and Behavior</i> , 2002, 77, 671-675.	1.0	63
31	Response Transformation and Receptive-Field Synthesis in the Lemniscal Trigeminothalamic Circuit. <i>Journal of Neurophysiology</i> , 2003, 90, 1556-1570.	0.9	63
32	Whisker Trimming Begun at Birth or on Postnatal Day 12 Affects Excitatory and Inhibitory Receptive Fields of Layer IV Barrel Neurons. <i>Journal of Neurophysiology</i> , 2005, 94, 3987-3995.	0.9	62
33	Local Field Potentials and the Encoding of Whisker Deflections by Population Firing Synchrony in Thalamic Barreloids. <i>Journal of Neurophysiology</i> , 2003, 89, 2137-2145.	0.9	60
34	Neuronal Integration in the Somatosensory Whisker/Barrel Cortex. <i>Cerebral Cortex</i> , 1995, , 263-297.	0.6	55
35	Angular Tuning and Velocity Sensitivity in Different Neuron Classes Within Layer 4 of Rat Barrel Cortex. <i>Journal of Neurophysiology</i> , 2004, 91, 223-229.	0.9	52
36	State-Dependent Processing of Sensory Stimuli by Thalamic Reticular Neurons. <i>Journal of Neuroscience</i> , 2003, 23, 5264-5271.	1.7	49

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37	Functional Asymmetries in the Rodent Barrel Cortex. Somatosensory & Motor Research, 1991, 8, 111-116.	0.4	47
38	High Responsiveness and Direction Sensitivity of Neurons in the Rat Thalamic Reticular Nucleus to Vibrissa Deflections. Journal of Neurophysiology, 2000, 83, 2791-2801.	0.9	47
39	The Role of Thalamic Inputs in Surround Receptive Fields of Barrel Neurons. Journal of Neuroscience, 2005, 25, 5926-5934.	1.7	43
40	Thalamic Relay of Afferent Responses to 1- to 12-Hz Whisker Stimulation in the Rat. Journal of Neurophysiology, 1998, 80, 1016-1019.	0.9	42
41	Processing of Periodic Whisker Deflections By Neurons in the Ventroposterior Medial and Thalamic Reticular Nuclei. Journal of Neurophysiology, 2003, 90, 3087-3094.	0.9	40
42	Target-specific M1 inputs to infragranular S1 pyramidal neurons. Journal of Neurophysiology, 2016, 116, 1261-1274.	0.9	36
43	Physiologic effects of nucleus basalis magnocellularis stimulation on rat barrel cortex neurons. Experimental Brain Research, 1994, 102, 21-33.	0.7	35
44	A reliable technique for marking the location of extracellular recording sites using glass micropipettes. Neuroscience Letters, 1987, 81, 100-104.	1.0	34
45	Effects of baclofen and phaclofen on receptive field properties of rat whisker barrel neurons. Brain Research, 1996, 712, 325-328.	1.1	34
46	Inhibition Suppresses Transmission of Tonic Vibrissa-Evoked Activity in the Rat Ventrobasal Thalamus. Journal of Neuroscience, 2000, 20, RC100-RC100.	1.7	33
47	Layer- and Cell-Type-Specific Effects of Neonatal Whisker-Trimming in Adult Rat Barrel Cortex. Journal of Neurophysiology, 2007, 97, 4380-4385.	0.9	32
48	Stimulus-Specific and Stimulus-Nonspecific Firing Synchrony and Its Modulation by Sensory Adaptation in the Whisker-to-Barrel Pathway. Journal of Neurophysiology, 2009, 101, 2328-2338.	0.9	29
49	Thalamocortical Dysfunction and Thalamic Injury after Asphyxial Cardiac Arrest in Developing Rats. Journal of Neuroscience, 2012, 32, 4972-4981.	1.7	27
50	Protracted Development of Responses to Whisker Deflection in Rat Trigeminal Ganglion Neurons. Journal of Neurophysiology, 2003, 90, 1432-1437.	0.9	26
51	Somatosensory Development. , 1981, , 259-292.		24
52	Angularly Nonspecific Response Suppression in Rat Barrel Cortex. Cerebral Cortex, 2006, 17, 599-609.	1.6	23
53	Adaptation of trigeminal ganglion cells to periodic whisker deflections. Somatosensory & Motor Research, 2006, 23, 111-118.	0.4	20
54	Response properties of mouse trigeminal ganglion neurons. Somatosensory & Motor Research, 2008, 25, 209-221.	0.4	20

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55	Subthreshold Receptive Field Properties Distinguish Different Classes of Corticothalamic Neurons in the Somatosensory System. <i>Journal of Neuroscience</i> , 2009, 29, 964-972.	1.7	20
56	Thalamocortical Conduction Times and Stimulus-Evoked Responses in the Rat Whisker-to-Barrel System. <i>Journal of Neurophysiology</i> , 2007, 98, 2842-2847.	0.9	16
57	Development of Thalamocortical Response Transformations in the Rat Whisker-Barrel System. <i>Journal of Neurophysiology</i> , 2008, 99, 356-366.	0.9	13
58	Consistency of Angular Tuning in the Rat Vibrissa System. <i>Journal of Neurophysiology</i> , 2010, 104, 3105-3112.	0.9	13
59	Effect of whisker geometry on contact force produced by vibrissae moving at different velocities. <i>Journal of Neurophysiology</i> , 2017, 118, 1637-1649.	0.9	10
60	Effects of thalamic high-frequency electrical stimulation on whisker-evoked cortical adaptation. <i>Experimental Brain Research</i> , 2010, 200, 239-250.	0.7	8
61	Whisker plucking alters responses of rat trigeminal ganglion neurons. <i>Somatosensory & Motor Research</i> , 2003, 20, 233-238.	0.4	7
62	Subbarrel Patterns in Somatosensory Cortical Barrels Can Emerge from Local Dynamic Instabilities. <i>PLoS Computational Biology</i> , 2009, 5, e1000537.	1.5	5
63	Long-Term Deficits in Cortical Circuit Function after Asphyxial Cardiac Arrest and Resuscitation in Developing Rats. <i>ENeuro</i> , 2017, 4, ENEURO.0319-16.2017.	0.9	5
64	Response properties of whisker-associated primary afferent neurons following infraorbital nerve transection with microsurgical repair in adult rats. <i>Journal of Neurophysiology</i> , 2016, 115, 1458-1467.	0.9	3
65	“The Job Has Become Advocating for the Job” Threats to Funding Dramatically Influence Program Outcomes. <i>American Journal of Health Promotion</i> , 2018, 32, 861-864.	0.9	3
66	Serotonin and Whisking. <i>Neuron</i> , 2003, 39, 197-199.	3.8	1