

David Kleinfeld

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

160
papers

13,151
citations

63
h-index

113
g-index

179
ext. papers

15,798
ext. citations

9
avg. IF

6.52
L-index

#	Paper	IF	Citations
160	Contribution of animal models toward understanding resting state functional connectivity. <i>NeuroImage</i> , 2021 , 245, 118630	7.9	6
159	The Global Configuration of Visual Stimuli Alters Co-Fluctuations of Cross-Hemispheric Human Brain Activity. <i>Journal of Neuroscience</i> , 2021 , 41, 9756-9766	6.6	0
158	Endothelial struts enable the generation of large lumenized blood vessels de novo. <i>Nature Cell Biology</i> , 2021 , 23, 322-329	23.4	2
157	Mathematical synthesis of the cortical circulation for the whole mouse brain-part II: Microcirculatory closure. <i>Microcirculation</i> , 2021 , 28, e12687	2.9	2
156	Constructing an adult orofacial premotor atlas in Allen mouse CCF. <i>ELife</i> , 2021 , 10,	8.9	2
155	Brain microvasculature has a common topology with local differences in geometry that match metabolic load. <i>Neuron</i> , 2021 , 109, 1168-1187.e13	13.9	20
154	Specific populations of basal ganglia output neurons target distinct brain stem areas while collateralizing throughout the diencephalon. <i>Neuron</i> , 2021 , 109, 1721-1738.e4	13.9	14
153	Abortive intussusceptive angiogenesis causes multi-cavernous vascular malformations. <i>ELife</i> , 2021 , 10,	8.9	2
152	A Suite of Neurophotonic Tools to Underpin the Contribution of Internal Brain States in fMRI. <i>Current Opinion in Biomedical Engineering</i> , 2021 , 18, 100273-100273	4.4	0
151	Voxelized simulation of cerebral oxygen perfusion elucidates hypoxia in aged mouse cortex. <i>PLoS Computational Biology</i> , 2021 , 17, e1008584	5	4
150	Reinforcement learning links spontaneous cortical dopamine impulses to reward. <i>Current Biology</i> , 2021 , 31, 4111-4119.e4	6.3	2
149	Assessment of single-vessel cerebral blood velocity by phase contrast fMRI. <i>PLoS Biology</i> , 2021 , 19, e3000923	9.7	2
148	Reversibly Modulating the Blood-Brain Barrier by Laser Stimulation of Molecular-Targeted Nanoparticles. <i>Nano Letters</i> , 2021 , 21, 9805-9815	11.5	7
147	Cerebrospinal fluid influx drives acute ischemic tissue swelling. <i>Science</i> , 2020 , 367,	33.3	150
146	Ultra-slow Oscillations in fMRI and Resting-State Connectivity: Neuronal and Vascular Contributions and Technical Confounds. <i>Neuron</i> , 2020 , 107, 782-804	13.9	32
145	Can One Concurrently Record Electrical Spikes from Every Neuron in a Mammalian Brain?. <i>Neuron</i> , 2019 , 103, 1005-1015	13.9	22
144	Direct wavefront sensing enables functional imaging of infragranular axons and spines. <i>Nature Methods</i> , 2019 , 16, 615-618	21.6	38

143	Brain Capillary Networks Across Species: A few Simple Organizational Requirements Are Sufficient to Reproduce Both Structure and Function. <i>Frontiers in Physiology</i> , 2019 , 10, 233	4.6	29
142	An active texture-based digital atlas enables automated mapping of structures and markers across brains. <i>Nature Methods</i> , 2019 , 16, 341-350	21.6	14
141	Orofacial Movements Involve Parallel Corticobulbar Projections from Motor Cortex to Trigeminal Premotor Nuclei. <i>Neuron</i> , 2019 , 104, 765-780.e3	13.9	8
140	Targeted Occlusion to Surface and Deep Vessels in Neocortex Via Linear and Nonlinear Optical Absorption. <i>Springer Series in Translational Stroke Research</i> , 2019 , 145-162	0.1	
139	CNIFERS: CELL-BASED BIOSENSORS WITH NANOMOLAR SENSITIVITY TO IN VIVO CHANGES IN NEUROMODULATION 2019 , 19-32		
138	Awake Mouse Imaging: From Two-Photon Microscopy to Blood Oxygen Level-Dependent Functional Magnetic Resonance Imaging. <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> , 2019 , 4, 533-542	3.4	27
137	Functional brain stem circuits for control of nose motion. <i>Journal of Neurophysiology</i> , 2019 , 121, 205-217.2	3.2	8
136	Ultra-Slow Single-Vessel BOLD and CBV-Based fMRI Spatiotemporal Dynamics and Their Correlation with Neuronal Intracellular Calcium Signals. <i>Neuron</i> , 2018 , 97, 925-939.e5	13.9	66
135	Circuits in the rodent brainstem that control whisking in concert with other orofacial motor actions. <i>Neuroscience</i> , 2018 , 368, 152-170	3.9	29
134	Simulations of blood as a suspension predicts a depth dependent hematocrit in the circulation throughout the cerebral cortex. <i>PLoS Computational Biology</i> , 2018 , 14, e1006549	5	18
133	Comparing two classes of biological distribution systems using network analysis. <i>PLoS Computational Biology</i> , 2018 , 14, e1006428	5	11
132	Coordination of Orofacial Motor Actions into Exploratory Behavior by Rat. <i>Current Biology</i> , 2017 , 27, 688-696	6.3	51
131	Entrainment of Arteriole Vasomotor Fluctuations by Neural Activity Is a Basis of Blood-Oxygenation-Level-Dependent "Resting-State" Connectivity. <i>Neuron</i> , 2017 , 96, 936-948.e3	13.9	156
130	The impact of vessel size, orientation and intravascular contribution on the neurovascular fingerprint of BOLD bSSFP fMRI. <i>NeuroImage</i> , 2017 , 163, 13-23	7.9	29
129	Parallel Inhibitory and Excitatory Trigemino-Facial Feedback Circuitry for Reflexive Vibrissa Movement. <i>Neuron</i> , 2017 , 95, 673-682.e4	13.9	16
128	The capillary bed offers the largest hemodynamic resistance to the cortical blood supply. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017 , 37, 52-68	7.3	124
127	Depth-dependent flow and pressure characteristics in cortical microvascular networks. <i>PLoS Computational Biology</i> , 2017 , 13, e1005392	5	60
126	Precision mapping of the vibrissa representation within murine primary somatosensory cortex. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2016 , 371,	5.8	18

125	The roadmap for estimation of cell-type-specific neuronal activity from non-invasive measurements. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2016 , 371,	5.8	31
124	Analysis of Neuronal Spike Trains, Deconstructed. <i>Neuron</i> , 2016 , 91, 221-59	13.9	49
123	Construction of Cell-based Neurotransmitter Fluorescent Engineered Reporters (CNiFERs) for Optical Detection of Neurotransmitters In Vivo. <i>Journal of Visualized Experiments</i> , 2016 ,	1.6	7
122	Whisking, Sniffing, and the Hippocampal Rhythm: A Tale of Two Oscillators. <i>PLoS Biology</i> , 2016 , 14, e1002385	9.7	27
121	Circuits in the Ventral Medulla That Phase-Lock Motoneurons for Coordinated Sniffing and Whisking. <i>Neural Plasticity</i> , 2016 , 2016, 7493048	3.3	12
120	Neurovascular and Immuno-Imaging: From Mechanisms to Therapies. Proceedings of the Inaugural Symposium. <i>Frontiers in Neuroscience</i> , 2016 , 10, 46	5.1	2
119	Cell type specificity of neurovascular coupling in cerebral cortex. <i>ELife</i> , 2016 , 5,	8.9	126
118	Inhibition, Not Excitation, Drives Rhythmic Whisking. <i>Neuron</i> , 2016 , 90, 374-87	13.9	42
117	Roger Tsien 1952-2016. <i>Nature Neuroscience</i> , 2016 , 19, 1269-70	25.5	1
116	Juxtacellular Monitoring and Localization of Single Neurons within Sub-cortical Brain Structures of Alert, Head-restrained Rats. <i>Journal of Visualized Experiments</i> , 2015 ,	1.6	5
115	Ultra-large field-of-view two-photon microscopy. <i>Optics Express</i> , 2015 , 23, 13833-47	3.3	73
114	Deflection of a vibrissa leads to a gradient of strain across mechanoreceptors in a mystacial follicle. <i>Journal of Neurophysiology</i> , 2015 , 114, 138-45	3.2	16
113	Muscles involved in naris dilation and nose motion in rat. <i>Anatomical Record</i> , 2015 , 298, 546-53	2.1	14
112	Robust and fragile aspects of cortical blood flow in relation to the underlying angioarchitecture. <i>Microcirculation</i> , 2015 , 22, 204-218	2.9	62
111	Fluorescently labeled peptide increases identification of degenerated facial nerve branches during surgery and improves functional outcome. <i>PLoS ONE</i> , 2015 , 10, e0119600	3.7	21
110	Vibrissa Self-Motion and Touch Are Reliably Encoded along the Same Somatosensory Pathway from Brainstem through Thalamus. <i>PLoS Biology</i> , 2015 , 13, e1002253	9.7	69
109	Feedback in the brainstem: an excitatory disynaptic pathway for control of whisking. <i>Journal of Comparative Neurology</i> , 2015 , 523, 921-42	3.4	14
108	The Musculature That Drives Active Touch by Vibrissae and Nose in Mice. <i>Anatomical Record</i> , 2015 , 298, 1347-58	2.1	19

107	The Central Pattern Generator for Rhythmic Whisking 2015 , 149-165		3
106	More than a rhythm of life: breathing as a binder of orofacial sensation. <i>Nature Neuroscience</i> , 2014 , 17, 647-51	25.5	71
105	Cell-based reporters reveal in vivo dynamics of dopamine and norepinephrine release in murine cortex. <i>Nature Methods</i> , 2014 , 11, 1245-52	21.6	100
104	How the brainstem controls orofacial behaviors comprised of rhythmic actions. <i>Trends in Neurosciences</i> , 2014 , 37, 370-80	13.3	99
103	Spectral methods for functional brain imaging. <i>Cold Spring Harbor Protocols</i> , 2014 , 2014, 248-62	1.2	7
102	Activation and measurement of free whisking in the lightly anesthetized rodent. <i>Nature Protocols</i> , 2014 , 9, 1792-802	18.8	7
101	Imaging Vasodynamics in the Awake Mouse Brain with Two-Photon Microscopy. <i>Neuromethods</i> , 2014 , 55-73	0.4	4
100	Two-Photon Microscopy to Measure Blood Flow and Concurrent Brain Cell Activity. <i>Neuromethods</i> , 2014 , 273-290	0.4	1
99	The Brainstem Oscillator for Whisking and the Case for Breathing as the Master Clock for Orofacial Motor Actions. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2014 , 79, 29-39	3.9	17
98	ReaChR: a red-shifted variant of channelrhodopsin enables deep transcranial optogenetic excitation. <i>Nature Neuroscience</i> , 2013 , 16, 1499-508	25.5	544
97	The challenge of connecting the dots in the B.R.A.I.N. <i>Neuron</i> , 2013 , 80, 270-4	13.9	60
96	The smallest stroke: occlusion of one penetrating vessel leads to infarction and a cognitive deficit. <i>Nature Neuroscience</i> , 2013 , 16, 55-63	25.5	221
95	Hierarchy of orofacial rhythms revealed through whisking and breathing. <i>Nature</i> , 2013 , 497, 205-10	50.4	210
94	The cortical angiome: an interconnected vascular network with noncolumnar patterns of blood flow. <i>Nature Neuroscience</i> , 2013 , 16, 889-97	25.5	340
93	All-optical osteotomy to create windows for transcranial imaging in mice. <i>Optics Express</i> , 2013 , 21, 23160-8	3.9	9
92	Two-photon imaging of blood flow in the rat cortex. <i>Cold Spring Harbor Protocols</i> , 2013 , 2013, 759-67	1.2	12
91	Optically induced occlusion of single blood vessels in rodent neocortex. <i>Cold Spring Harbor Protocols</i> , 2013 , 2013, 1153-60	1.2	11
90	Mediation of muscular control of rhinarial motility in rats by the nasal cartilaginous skeleton. <i>Anatomical Record</i> , 2013 , 296, 1821-32	2.1	10

89	Differential Multiphoton Laser Scanning Microscopy. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012 , 18, 14-28	3.8	8
88	Vectorization of optically sectioned brain microvasculature: learning aids completion of vascular graphs by connecting gaps and deleting open-ended segments. <i>Medical Image Analysis</i> , 2012 , 16, 1241-58	15.4	24
87	Two-photon microscopy as a tool to study blood flow and neurovascular coupling in the rodent brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012 , 32, 1277-309	7.3	288
86	Dorso-rostral snout muscles in the rat subserve coordinated movement for whisking and sniffing. <i>Anatomical Record</i> , 2012 , 295, 1181-91	2.1	32
85	Prospect for feedback guided surgery with ultra-short pulsed laser light. <i>Current Opinion in Neurobiology</i> , 2012 , 22, 24-33	7.6	38
84	Sniffing and whisking in rodents. <i>Current Opinion in Neurobiology</i> , 2012 , 22, 243-50	7.6	123
83	A polished and reinforced thinned-skull window for long-term imaging of the mouse brain. <i>Journal of Visualized Experiments</i> , 2012 ,	1.6	80
82	Primary motor cortex reports efferent control of vibrissa motion on multiple timescales. <i>Neuron</i> , 2011 , 72, 344-56	13.9	125
81	Neuronal basis for object location in the vibrissa scanning sensorimotor system. <i>Neuron</i> , 2011 , 72, 455-68	3.9	109
80	A guide to delineate the logic of neurovascular signaling in the brain. <i>Frontiers in Neuroenergetics</i> , 2011 , 3, 1		59
79	Characterizing ligand-gated ion channel receptors with genetically encoded Ca ²⁺ sensors. <i>PLoS ONE</i> , 2011 , 6, e16519	3.7	31
78	Fluctuating and sensory-induced vasodynamics in rodent cortex extend arteriole capacity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 8473-8	11.5	201
77	Quality metrics to accompany spike sorting of extracellular signals. <i>Journal of Neuroscience</i> , 2011 , 31, 8699-705	6.6	246
76	Large-scale automated histology in the pursuit of connectomes. <i>Journal of Neuroscience</i> , 2011 , 31, 16125-38	5.38	121
75	Photon counting, censor corrections, and lifetime imaging for improved detection in two-photon microscopy. <i>Journal of Neurophysiology</i> , 2011 , 105, 3106-13	3.2	29
74	Chronic optical access through a polished and reinforced thinned skull. <i>Nature Methods</i> , 2010 , 7, 981-4	21.6	300
73	An in vivo biosensor for neurotransmitter release and in situ receptor activity. <i>Nature Neuroscience</i> , 2010 , 13, 127-132	25.5	93
72	Topological basis for the robust distribution of blood to rodent neocortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 12670-5	11.5	123

71	Automatic identification of fluorescently labeled brain cells for rapid functional imaging. <i>Journal of Neurophysiology</i> , 2010 , 104, 1803-11	3.2	44
70	Optimizing the fluorescent yield in two-photon laser scanning microscopy with dispersion compensation. <i>Optics Express</i> , 2010 , 18, 13661-72	3.3	24
69	Temporally focused femtosecond laser pulses for low numerical aperture micromachining through optically transparent materials. <i>Optics Express</i> , 2010 , 18, 18086-94	3.3	95
68	Spatio-temporally focused femtosecond laser pulses for nonreciprocal writing in optically transparent materials. <i>Optics Express</i> , 2010 , 18, 24673-8	3.3	106
67	Rapid determination of particle velocity from space-time images using the Radon transform. <i>Journal of Computational Neuroscience</i> , 2010 , 29, 5-11	1.4	96
66	Correlations of neuronal and microvascular densities in murine cortex revealed by direct counting and colocalization of nuclei and vessels. <i>Journal of Neuroscience</i> , 2009 , 29, 14553-70	6.6	373
65	Enter the matrix. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 19209-10	11.5	1
64	Severe blood-brain barrier disruption and surrounding tissue injury. <i>Stroke</i> , 2009 , 40, e666-74	6.7	92
63	A proposal for a coordinated effort for the determination of brainwide neuroanatomical connectivity in model organisms at a mesoscopic scale. <i>PLoS Computational Biology</i> , 2009 , 5, e1000334	5	206
62	Active dilation of penetrating arterioles restores red blood cell flux to penumbral neocortex after focal stroke. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009 , 29, 738-51	7.3	101
61	Phase-to-rate transformations encode touch in cortical neurons of a scanning sensorimotor system. <i>Nature Neuroscience</i> , 2009 , 12, 492-501	25.5	135
60	Plasma-mediated ablation: an optical tool for submicrometer surgery on neuronal and vascular systems. <i>Current Opinion in Biotechnology</i> , 2009 , 20, 90-9	11.4	60
59	Acute vascular disruption and aquaporin 4 loss after stroke. <i>Stroke</i> , 2009 , 40, 2182-90	6.7	57
58	In Vivo Two-Photon Laser Scanning Microscopy with Concurrent Plasma-Mediated Ablation Principles and Hardware Realization. <i>Frontiers in Neuroscience</i> , 2009 , 59-115		18
57	The glial cell response is an essential component of hypoxia-induced erythropoiesis in mice. <i>Journal of Clinical Investigation</i> , 2009 , 119, 3373-83	15.9	72
56	Two-Photon Laser Scanning Microscopy as a Tool to Study Cortical Vasodynamics Under Normal and Ischemic Conditions 2009 , 245-261		
55	Where and what in the whisker sensorimotor system. <i>Nature Reviews Neuroscience</i> , 2008 , 9, 601-12	13.5	411
54	Finding coherence in spontaneous oscillations. <i>Nature Neuroscience</i> , 2008 , 11, 991-3	25.5	48

53	Chapter 10. In vivo measurements of blood flow and glial cell function with two-photon laser-scanning microscopy. <i>Methods in Enzymology</i> , 2008 , 444, 231-54	1.7	33
52	Biomechanics of the vibrissa motor plant in rat: rhythmic whisking consists of triphasic neuromuscular activity. <i>Journal of Neuroscience</i> , 2008 , 28, 3438-55	6.6	126
51	Advancing multifocal nonlinear microscopy: development and application of a novel multibeam Yb:KGd(WO ₄) ₂ oscillator. <i>Optics Express</i> , 2008 , 16, 17574-84	3.3	29
50	Stimulus-induced changes in blood flow and 2-deoxyglucose uptake dissociate in ipsilateral somatosensory cortex. <i>Journal of Neuroscience</i> , 2008 , 28, 14347-57	6.6	148
49	Texture coding in the rat whisker system: slip-stick versus differential resonance. <i>PLoS Biology</i> , 2008 , 6, e215	9.7	163
48	Suppressed neuronal activity and concurrent arteriolar vasoconstriction may explain negative blood oxygenation level-dependent signal. <i>Journal of Neuroscience</i> , 2007 , 27, 4452-9	6.6	307
47	Active spatial perception in the vibrissa scanning sensorimotor system. <i>PLoS Biology</i> , 2007 , 5, e15	9.7	123
46	Penetrating arterioles are a bottleneck in the perfusion of neocortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 365-70	11.5	268
45	Large two-photon absorptivity of hemoglobin in the infrared range of 780-880 nm. <i>Journal of Chemical Physics</i> , 2007 , 126, 025102	3.9	30
44	Wilder Penfield in the age of YouTube: visualizing the sequential activation of sensorimotor areas across neocortex. <i>Neuron</i> , 2007 , 56, 760-2	13.9	3
43	Active sensation: insights from the rodent vibrissa sensorimotor system. <i>Current Opinion in Neurobiology</i> , 2006 , 16, 435-44	7.6	285
42	Two-photon imaging of cortical surface microvessels reveals a robust redistribution in blood flow after vascular occlusion. <i>PLoS Biology</i> , 2006 , 4, e22	9.7	274
41	Spectral Mixing in Nervous Systems: Experimental Evidence and Biologically Plausible Circuits. <i>Progress of Theoretical Physics Supplement</i> , 2006 , 161, 86-98		5
40	Exploratory whisking by rat is not phase locked to the hippocampal theta rhythm. <i>Journal of Neuroscience</i> , 2006 , 26, 6518-22	6.6	33
39	Seeing what the mouse sees with its vibrissae: a matter of behavioral state. <i>Neuron</i> , 2006 , 50, 524-6	13.9	13
38	Coding of stimulus frequency by latency in thalamic networks through the interplay of GABAB-mediated feedback and stimulus shape. <i>Journal of Neurophysiology</i> , 2006 , 95, 1735-50	3.2	19
37	Targeted insult to subsurface cortical blood vessels using ultrashort laser pulses: three models of stroke. <i>Nature Methods</i> , 2006 , 3, 99-108	21.6	235
36	MPScope: a versatile software suite for multiphoton microscopy. <i>Journal of Neuroscience Methods</i> , 2006 , 156, 351-9	3	94

35	Femtosecond laser-drilled capillary integrated into a microfluidic device. <i>Applied Physics Letters</i> , 2005 , 86, 201106	3.4	91
34	Positive feedback in a brainstem tactile sensorimotor loop. <i>Neuron</i> , 2005 , 45, 447-57	13.9	90
33	Activation of nucleus basalis facilitates cortical control of a brain stem motor program. <i>Journal of Neurophysiology</i> , 2005 , 94, 699-711	3.2	35
32	From art to engineering? The rise of in vivo mammalian electrophysiology via genetically targeted labeling and nonlinear imaging. <i>PLoS Biology</i> , 2005 , 3, e355	9.7	19
31	Current flow in vibrissa motor cortex can phase-lock with exploratory rhythmic whisking in rat. <i>Journal of Neurophysiology</i> , 2004 , 92, 1700-7	3.2	74
30	Goal-directed whisking increases phase-locking between vibrissa movement and electrical activity in primary sensory cortex in rat. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 12348-53	11.5	64
29	Developmental regulation of active and passive membrane properties in rat vibrissa motoneurons. <i>Journal of Physiology</i> , 2004 , 556, 203-19	3.9	23
28	Cutting Tissue With Ultrashort Pulsed Laser Light. <i>Optics and Photonics News</i> , 2004 , 15, 24	1.9	4
27	Frisking the whiskers: patterned sensory input in the rat vibrissa system. <i>Neuron</i> , 2004 , 41, 181-4	13.9	52
26	Reversing cerebellar long-term depression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 15989-93	11.5	130
25	Vibrissa movement elicited by rhythmic electrical microstimulation to motor cortex in the aroused rat mimics exploratory whisking. <i>Journal of Neurophysiology</i> , 2003 , 90, 2950-63	3.2	70
24	Imaging reveals synaptic targets of a swim-terminating neuron in the leech CNS. <i>Journal of Neuroscience</i> , 2003 , 23, 11402-10	6.6	43
23	All-optical histology using ultrashort laser pulses. <i>Neuron</i> , 2003 , 39, 27-41	13.9	164
22	Closed-loop neuronal computations: focus on vibrissa somatosensation in rat. <i>Cerebral Cortex</i> , 2003 , 13, 53-62	5.1	89
21	Unilateral vibrissa contact: changes in amplitude but not timing of rhythmic whisking. <i>Somatosensory & Motor Research</i> , 2003 , 20, 163-9	1.2	54
20	Rhythmic whisking by rat: retraction as well as protraction of the vibrissae is under active muscular control. <i>Journal of Neurophysiology</i> , 2003 , 89, 104-17	3.2	295
19	Coherent electrical activity between vibrissa sensory areas of cerebellum and neocortex is enhanced during free whisking. <i>Journal of Neurophysiology</i> , 2002 , 87, 2137-48	3.2	98
18	Cortical imaging through the intact mouse skull using two-photon excitation laser scanning microscopy. <i>Microscopy Research and Technique</i> , 2002 , 56, 304-5	2.8	46

17	Spectral mixing of rhythmic neuronal signals in sensory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 15176-81	11.5	21
16	Adaptive filtering of vibrissa input in motor cortex of rat. <i>Neuron</i> , 2002 , 34, 1021-34	13.9	90
15	Cortical blood flow through individual capillaries in rat vibrissa S1 cortex: stimulus-induced changes in flow are comparable to the underlying fluctuations in flow. <i>International Congress Series</i> , 2002 , 1235, 115-122		9
14	Traveling electrical waves in cortex: insights from phase dynamics and speculation on a computational role. <i>Neuron</i> , 2001 , 29, 33-44	13.9	343
13	Chattering and differential signal processing in identified motion-sensitive neurons of parallel visual pathways in the chick tectum. <i>Journal of Neuroscience</i> , 2001 , 21, 6440-6	6.6	55
12	Distributed and partially separate pools of neurons are correlated with two different components of the gill-withdrawal reflex in Aplysia. <i>Journal of Neuroscience</i> , 2000 , 20, 8485-92	6.6	21
11	Dendritic Ca(2+)-activated K(+) conductances regulate electrical signal propagation in an invertebrate neuron. <i>Journal of Neuroscience</i> , 1999 , 19, 8319-26	6.6	19
10	Supralinear summation of synaptic inputs by an invertebrate neuron: dendritic gain is mediated by an "inward rectifier" K(+) current. <i>Journal of Neuroscience</i> , 1999 , 19, 5875-88	6.6	51
9	Ultra-miniature headstage with 6-channel drive and vacuum-assisted micro-wire implantation for chronic recording from the neocortex. <i>Journal of Neuroscience Methods</i> , 1999 , 90, 37-46	3	41
8	Anatomical loops and their electrical dynamics in relation to whisking by rat. <i>Somatosensory & Motor Research</i> , 1999 , 16, 69-88	1.2	150
7	Identification of neural circuits by imaging coherent electrical activity with FRET-based dyes. <i>Neuron</i> , 1999 , 23, 449-59	13.9	81
6	Voltage-sensitive dyes for monitoring multineuronal activity in the intact central nervous system. <i>The Histochemical Journal</i> , 1998 , 30, 169-87		54
5	Central versus peripheral determinants of patterned spike activity in rat vibrissa cortex during whisking. <i>Journal of Neurophysiology</i> , 1997 , 78, 1144-9	3.2	185
4	In vivo dendritic calcium dynamics in neocortical pyramidal neurons. <i>Nature</i> , 1997 , 385, 161-5	50.4	670
3	Erratum to "Automatic sorting of multiple unit neuronal signals in the presence of anisotropic and non-Gaussian variability" <i>Journal of Neuroscience Methods</i> , 1997 , 71, 233	3	1
2	Distributed representation of vibrissa movement in the upper layers of somatosensory cortex revealed with voltage-sensitive dyes. <i>Journal of Comparative Neurology</i> , 1996 , 375, 89-108	3.4	201
1	Automatic sorting of multiple unit neuronal signals in the presence of anisotropic and non-Gaussian variability. <i>Journal of Neuroscience Methods</i> , 1996 , 69, 175-88	3	257