

# Karel Svoboda

## List of Articles by Year in descending order

Source: [//exaly.com/author-pdf/5588087/publications.pdf](https://exaly.com/author-pdf/5588087/publications.pdf)

Version: 2025-02-01

175

peer-reviewed  
articles

46,066

peer-reviewed  
citations

2593

95

peer-reviewed  
h-index

7522

157

g-index

213

documents

58672

doc citations

2100

108

h-index

58004

citing authors

#	ARTICLE	IF	CITATIONS
1	Expansion-assisted selective plane illumination microscopy for nanoscale imaging of centimeter-scale tissues. <i>ELife</i> , 2024, 12, .	0.7	18
2	Brain-wide neural activity underlying memory-guided movement. <i>Cell</i> , 2024, 187, 676-691.e16.	33.7	79
3	Brain mechanism of foraging: Reward-dependent synaptic plasticity versus neural integration of values. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2024, 121, .	7.5	12
4	Sub-threshold neuronal activity and the dynamical regime of cerebral cortex. <i>Nature Communications</i> , 2024, 15, .	13.7	13
5	A response to claims of emergent intelligence and sentience in a dish. <i>Neuron</i> , 2023, 111, 604-605.	11.0	19
6	Fast and sensitive GCaMP calcium indicators for imaging neural populations. <i>Nature</i> , 2023, 615, 884-891.	38.0	730
7	Predictive and robust gene selection for spatial transcriptomics. <i>Nature Communications</i> , 2023, 14, .	13.7	38
8	Distributing task-related neural activity across a cortical network through task-independent connections. <i>Nature Communications</i> , 2023, 14, .	13.7	16
9	Compression strategies for large-scale electrophysiology data. <i>Journal of Neural Engineering</i> , 2023, 20, 056009.	3.4	10
10	A midbrain-thalamus-cortex circuit reorganizes cortical dynamics to initiate movement. <i>Cell</i> , 2022, 185, 1065-1081.e23.	33.7	172
11	Neural Algorithms and Circuits for Motor Planning. <i>Annual Review of Neuroscience</i> , 2022, 45, 249-271.	11.4	74
12	A hybrid open-top light-sheet microscope for versatile multi-scale imaging of cleared tissues. <i>Nature Methods</i> , 2022, 19, 613-619.	24.6	153
13	Next-generation brain observatories. <i>Neuron</i> , 2022, 110, 3661-3666.	11.0	21
14	Attractor dynamics gate cortical information flow during decision-making. <i>Nature Neuroscience</i> , 2021, 24, 843-850.	17.1	132
15	High-fidelity estimates of spikes and subthreshold waveforms from 1-photon voltage imaging inÂvivo. <i>Cell Reports</i> , 2021, 35, 108954.	6.3	39
16	Neuropixels 2.0: A miniaturized high-density probe for stable, long-term brain recordings. <i>Science</i> , 2021, 372, .	36.3	1,011
17	Targeted photostimulation uncovers circuit motifs supporting short-term memory. <i>Nature Neuroscience</i> , 2021, 24, 259-265.	17.1	104
18	Accurate Localization of Linear Probe Electrode Arrays across Multiple Brains. <i>ENeuro</i> , 2021, 8, ENEURO.0241-21.2021.	2.1	40

#	ARTICLE	IF	CITATIONS
19	EASI-FISH for thick tissue defines lateral hypothalamus spatio-molecular organization. <i>Cell</i> , 2021, 184, 6361-6377.e24.	33.7	195
20	Current Treatment of Anterior Communicating Artery Aneurysms: Single Center Study. <i>Brain Sciences</i> , 2020, 10, 501.	2.5	7
21	A comparison of neuronal population dynamics measured with calcium imaging and electrophysiology. <i>PLoS Computational Biology</i> , 2020, 16, e1008198.	3.1	166
22	Recurrent interactions in local cortical circuits. <i>Nature</i> , 2020, 579, 256-259.	38.0	135
23	A general approach to engineer positive-going eFRET voltage indicators. <i>Nature Communications</i> , 2020, 11, .	13.7	55
24	Rapid mesoscale volumetric imaging of neural activity with synaptic resolution. <i>Nature Methods</i> , 2020, 17, 291-294.	24.6	133
25	High throughput instrument to screen fluorescent proteins under two-photon excitation. <i>Biomedical Optics Express</i> , 2020, 11, 7192.	2.8	4
26	Response to "Fallacies of Mice Experiments". <i>Neuroinformatics</i> , 2019, 17, 475-478.	2.6	5
27	Kilohertz frame-rate two-photon tomography. <i>Nature Methods</i> , 2019, 16, 778-786.	24.6	171
28	Recruitment of GABAergic Interneurons in the Barrel Cortex during Active Tactile Behavior. <i>Neuron</i> , 2019, 104, 412-427.e4.	11.0	221
29	Reconstruction of 1,000 Projection Neurons Reveals New Cell Types and Organization of Long-Range Connectivity in the Mouse Brain. <i>Cell</i> , 2019, 179, 268-281.e13.	33.7	544
30	High-performance calcium sensors for imaging activity in neuronal populations and microcompartments. <i>Nature Methods</i> , 2019, 16, 649-657.	24.6	1,274
31	Prediction of Choice from Competing Mechanosensory and Choice-Memory Cues during Active Tactile Decision Making. <i>Journal of Neuroscience</i> , 2019, 39, 3921-3933.	3.7	38
32	Discrete attractor dynamics underlies persistent activity in the frontal cortex. <i>Nature</i> , 2019, 566, 212-217.	38.0	343
33	An orderly single-trial organization of population dynamics in premotor cortex predicts behavioral variability. <i>Nature Communications</i> , 2019, 10, .	13.7	38
34	Genetic Dissection of Neural Circuits: A Decade of Progress. <i>Neuron</i> , 2018, 98, 256-281.	11.0	468
35	Low-Dimensional and Monotonic Preparatory Activity in Mouse Anterior Lateral Motor Cortex. <i>Journal of Neuroscience</i> , 2018, 38, 4163-4185.	3.7	111
36	Circuits in the Rodent Brainstem that Control Whisking in Concert with Other Orofacial Motor Actions. <i>Neuroscience</i> , 2018, 368, 152-170.	2.3	72

#	ARTICLE	IF	CITATIONS
37	Neural mechanisms of movement planning: motor cortex and beyond. <i>Current Opinion in Neurobiology</i> , 2018, 49, 33-41.	4.7	363
38	Thy1 transgenic mice expressing the red fluorescent calcium indicator jRGECO1a for neuronal population imaging in vivo. <i>PLoS ONE</i> , 2018, 13, e0205444.	2.3	114
39	A cortico-cerebellar loop for motor planning. <i>Nature</i> , 2018, 563, 113-116.	38.0	444
40	Distinct descending motor cortex pathways and their roles in movement. <i>Nature</i> , 2018, 563, 79-84.	38.0	443
41	Shared and distinct transcriptomic cell types across neocortical areas. <i>Nature</i> , 2018, 563, 72-78.	38.0	1,851
42	Anterolateral Motor Cortex Connects with a Medial Subdivision of Ventromedial Thalamus through Cell Type-Specific Circuits, Forming an Excitatory Thalamo-Cortico-Thalamic Loop via Layer 1 Apical Tuft Dendrites of Layer 5B Pyramidal Tract Type Neurons. <i>Journal of Neuroscience</i> , 2018, 38, 8787-8797.	3.7	98
43	Dynamic cues for whisker-based object localization: An analytical solution to vibration during active whisker touch. <i>PLoS Computational Biology</i> , 2018, 14, e1006032.	3.1	10
44	Middle cerebral artery aneurysms with intracerebral hematoma—the impact of side and volume on final outcome. <i>Acta Neurochirurgica</i> , 2017, 159, 543-547.	1.5	15
45	Maintenance of persistent activity in a frontal thalamocortical loop. <i>Nature</i> , 2017, 545, 181-186.	38.0	548
46	A Map of Anticipatory Activity in Mouse Motor Cortex. <i>Neuron</i> , 2017, 94, 866-879.e4.	11.0	252
47	Neural signatures of dynamic stimulus selection in <i>Drosophila</i> . <i>Nature Neuroscience</i> , 2017, 20, 1104-1113.	17.1	138
48	Fully integrated silicon probes for high-density recording of neural activity. <i>Nature</i> , 2017, 551, 232-236.	38.0	2,249
49	An International Laboratory for Systems and Computational Neuroscience. <i>Neuron</i> , 2017, 96, 1213-1218.	11.0	87
50	Mechanisms underlying a thalamocortical transformation during active tactile sensation. <i>PLoS Computational Biology</i> , 2017, 13, e1005576.	3.1	45
51	Robust neuronal dynamics in premotor cortex during motor planning. <i>Nature</i> , 2016, 532, 459-464.	38.0	511
52	Layer 4 fast-spiking interneurons filter thalamocortical signals during active somatosensation. <i>Nature Neuroscience</i> , 2016, 19, 1647-1657.	17.1	132
53	Whisking. <i>Current Biology</i> , 2015, 25, R137-R140.	3.6	75
54	A motor cortex circuit for motor planning and movement. <i>Nature</i> , 2015, 519, 51-56.	38.0	618

#	ARTICLE	IF	CITATIONS
55	A Cellular Resolution Map of Barrel Cortex Activity during Tactile Behavior. <i>Neuron</i> , 2015, 86, 783-799.	11.0	370
56	Comprehensive imaging of cortical networks. <i>Current Opinion in Neurobiology</i> , 2015, 32, 115-123.	4.7	127
57	Dual-Channel Circuit Mapping Reveals Sensorimotor Convergence in the Primary Motor Cortex. <i>Journal of Neuroscience</i> , 2015, 35, 4418-4426.	3.7	133
58	Procedures for Behavioral Experiments in Head-Fixed Mice. <i>PLoS ONE</i> , 2014, 9, e88678.	2.3	471
59	Flow of Cortical Activity Underlying a Tactile Decision in Mice. <i>Neuron</i> , 2014, 81, 179-194.	11.0	784
60	Natural Whisker-Guided Behavior by Head-Fixed Mice in Tactile Virtual Reality. <i>Journal of Neuroscience</i> , 2014, 34, 9537-9550.	3.7	163
61	Thy1-GCaMP6 Transgenic Mice for Neuronal Population Imaging In Vivo. <i>PLoS ONE</i> , 2014, 9, e108697.	2.3	651
62	Ultrasensitive fluorescent proteins for imaging neuronal activity. <i>Nature</i> , 2013, 499, 295-300.	38.0	6,830
63	The Mechanical Variables Underlying Object Localization along the Axis of the Whisker. <i>Journal of Neuroscience</i> , 2013, 33, 6726-6741.	3.7	140
64	Organization of Cortical and Thalamic Input to Pyramidal Neurons in Mouse Motor Cortex. <i>Journal of Neuroscience</i> , 2013, 33, 748-760.	3.7	374
65	Neural coding during active somatosensation revealed using illusory touch. <i>Nature Neuroscience</i> , 2013, 16, 958-965.	17.1	257
66	A Neuron-Based Screening Platform for Optimizing Genetically-Encoded Calcium Indicators. <i>PLoS ONE</i> , 2013, 8, e77728.	2.3	83
67	A Cre-Dependent GCaMP3 Reporter Mouse for Neuronal Imaging In Vivo. <i>Journal of Neuroscience</i> , 2012, 32, 3131-3141.	3.7	363
68	Regular Spiking and Intrinsic Bursting Pyramidal Cells Show Orthogonal Forms of Experience-Dependent Plasticity in Layer V of Barrel Cortex. <i>Neuron</i> , 2012, 73, 391-404.	11.0	85
69	Activity in motorâ€™sensory projections reveals distributed coding in somatosensation. <i>Nature</i> , 2012, 489, 299-303.	38.0	353
70	Optimization of a GCaMP Calcium Indicator for Neural Activity Imaging. <i>Journal of Neuroscience</i> , 2012, 32, 13819-13840.	3.7	1,220
71	Nonlinear dendritic integration of sensory and motor input during an active sensing task. <i>Nature</i> , 2012, 492, 247-251.	38.0	570
72	Automated Tracking of Whiskers in Videos of Head Fixed Rodents. <i>PLoS Computational Biology</i> , 2012, 8, e1002591.	3.1	167

#	ARTICLE	IF	CITATIONS
73	Multiple dynamic representations in the motor cortex during sensorimotor learning. <i>Nature</i> , 2012, 484, 473-478.	38.0	525
74	A toolbox of Cre-dependent optogenetic transgenic mice for light-induced activation and silencing. <i>Nature Neuroscience</i> , 2012, 15, 793-802.	17.1	1,431
75	Imaging Neocortical Neurons through a Chronic Cranial Window. <i>Cold Spring Harbor Protocols</i> , 2012, 2012, pdb.prot069617.	0.3	49
76	Long-Range Neuronal Circuits Underlying the Interaction between Sensory and Motor Cortex. <i>Neuron</i> , 2011, 72, 111-123.	11.0	539
77	Multiple new site-specific recombinases for use in manipulating animal genomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14198-14203.	7.5	180
78	Laminar Analysis of Excitatory Local Circuits in Vibrissal Motor and Sensory Cortical Areas. <i>PLoS Biology</i> , 2011, 9, e1000572.	5.0	227
79	Neural Activity in Barrel Cortex Underlying Vibrissa-Based Object Localization in Mice. <i>Neuron</i> , 2010, 67, 1048-1061.	11.0	508
80	Learning-related fine-scale specificity imaged in motor cortex circuits of behaving mice. <i>Nature</i> , 2010, 464, 1182-1186.	38.0	470
81	The functional asymmetry of auditory cortex is reflected in the organization of local cortical circuits. <i>Nature Neuroscience</i> , 2010, 13, 1413-1420.	17.1	99
82	Ephus: multipurpose data acquisition software for neuroscience experiments. <i>Frontiers in Neural Circuits</i> , 2010, 4, .	2.5	271
83	Vibrissa-Based Object Localization in Head-Fixed Mice. <i>Journal of Neuroscience</i> , 2010, 30, 1947-1967.	3.7	320
84	The subcellular organization of neocortical excitatory connections. <i>Nature</i> , 2009, 457, 1142-1145.	38.0	1,058
85	Reverse engineering the mouse brain. <i>Nature</i> , 2009, 461, 923-929.	38.0	134
86	Imaging neural activity in worms, flies and mice with improved GCaMP calcium indicators. <i>Nature Methods</i> , 2009, 6, 875-881.	24.6	1,925
87	Myosin-dependent targeting of transmembrane proteins to neuronal dendrites. <i>Nature Neuroscience</i> , 2009, 12, 568-576.	17.1	195
88	Experience-dependent structural synaptic plasticity in the mammalian brain. <i>Nature Reviews Neuroscience</i> , 2009, 10, 647-658.	20.8	1,832
89	Rapid Functional Maturation of Nascent Dendritic Spines. <i>Neuron</i> , 2009, 61, 247-258.	11.0	248
90	Subcellular Dynamics of Type II PKA in Neurons. <i>Neuron</i> , 2009, 62, 363-374.	11.0	121

#	ARTICLE	IF	CITATIONS
91	Sparse optical microstimulation in barrel cortex drives learned behaviour in freely moving mice. <i>Nature</i> , 2008, 451, 61-64.	38.0	514
92	[PLO6]: Illuminating cortical synapses and circuits. <i>International Journal of Developmental Neuroscience</i> , 2008, 26, 828-828.	1.5	0
93	Genetic Dissection of Neural Circuits. <i>Neuron</i> , 2008, 57, 634-660.	11.0	741
94	Long-Term, High-Resolution Imaging in the Neocortex In Vivo. <i>Cold Spring Harbor Protocols</i> , 2008, 2008, pdb.prot4902.	0.3	4
95	Circuit and Plasticity Defects in the Developing Somatosensory Cortex of Fmr1 Knock-Out Mice. <i>Journal of Neuroscience</i> , 2008, 28, 5178-5188.	3.7	201
96	A genetically encoded fluorescent sensor of ERK activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 19264-19269.	7.5	352
97	Characterization and Subcellular Targeting of GCaMP-Type Genetically-Encoded Calcium Indicators. <i>PLoS ONE</i> , 2008, 3, e1796.	2.3	147
98	The Functional Microarchitecture of the Mouse Barrel Cortex. <i>PLoS Biology</i> , 2007, 5, e189.	5.0	209
99	Locally dynamic synaptic learning rules in pyramidal neuron dendrites. <i>Nature</i> , 2007, 450, 1195-1200.	38.0	602
100	Cell Type-Specific Structural Plasticity of Axonal Branches and Boutons in the Adult Neocortex. <i>Neuron</i> , 2006, 49, 861-875.	11.0	395
101	Principles of Two-Photon Excitation Microscopy and Its Applications to Neuroscience. <i>Neuron</i> , 2006, 50, 823-839.	11.0	1,026
102	Spine growth precedes synapse formation in the adult neocortex in vivo. <i>Nature Neuroscience</i> , 2006, 9, 1117-1124.	17.1	532
103	Experience-dependent and cell-type-specific spine growth in the neocortex. <i>Nature</i> , 2006, 441, 979-983.	38.0	590
104	Rapid Redistribution of Synaptic PSD-95 in the Neocortex In Vivo. <i>PLoS Biology</i> , 2006, 4, e370.	5.0	323
105	Interdigitated Paralemniscal and Lemniscal Pathways in the Mouse Barrel Cortex. <i>PLoS Biology</i> , 2006, 4, e382.	5.0	259
106	Nonlinear [Ca <sup>2+</sup> ] Signaling in Dendrites and Spines Caused by Activity-Dependent Depression of Ca <sup>2+</sup> Extrusion. <i>Journal of Neuroscience</i> , 2006, 26, 8183-8194.	3.7	108
107	Geometric and functional organization of cortical circuits. <i>Nature Neuroscience</i> , 2005, 8, 782-790.	17.1	251
108	Regulation of fcp15 expression during single whisker experience in the barrel cortex of adult mice. <i>Journal of Neurobiology</i> , 2005, 65, 85-96.	3.5	34

#	ARTICLE	IF	CITATIONS
109	Diverse Modes of Axon Elaboration in the Developing Neocortex. PLoS Biology, 2005, 3, e272.	5.0	215
110	Laminar and Columnar Organization of Ascending Excitatory Projections to Layer 2/3 Pyramidal Neurons in Rat Barrel Cortex. Journal of Neuroscience, 2005, 25, 5670-5679.	3.7	226
111	Transient and Persistent Dendritic Spines in the Neocortex In Vivo. Neuron, 2005, 45, 279-291.	11.0	1,088
112	Rapid and Reversible Chemical Inactivation of Synaptic Transmission in Genetically Targeted Neurons. Neuron, 2005, 48, 727-735.	11.0	91
113	NMDA Receptor Subunit-Dependent [Ca <sup>2+</sup> ] Signaling in Individual Hippocampal Dendritic Spines. Journal of Neuroscience, 2005, 25, 6037-6046.	3.7	259
114	Dendrodendritic Synaptic Signals in Olfactory Bulb Granule Cells: Local Spine Boost and Global Low-Threshold Spike. Journal of Neuroscience, 2005, 25, 3521-3530.	3.7	147
115	Stereotyped Odor-Evoked Activity in the Mushroom Body of Drosophila Revealed by Green Fluorescent Protein-Based Ca <sup>2+</sup> Imaging. Journal of Neuroscience, 2004, 24, 6507-6514.	3.7	192
116	Monitoring Neural Activity and [Ca <sup>2+</sup> ] with Genetically Encoded Ca <sup>2+</sup> Indicators. Journal of Neuroscience, 2004, 24, 9572-9579.	3.7	224
117	Experience-dependent Changes in Basal Dendritic Branching of Layer 2/3 Pyramidal Neurons During a Critical Period for Developmental Plasticity in Rat Barrel Cortex. Cerebral Cortex, 2004, 14, 655-664.	2.8	70
118	Subcellular domain-restricted GABAergic innervation in primary visual cortex in the absence of sensory and thalamic inputs. Nature Neuroscience, 2004, 7, 1184-1186.	17.1	163
119	Cortical rewiring and information storage. Nature, 2004, 431, 782-788.	38.0	725
120	The Number of Glutamate Receptors Opened by Synaptic Stimulation in Single Hippocampal Spines. Journal of Neuroscience, 2004, 24, 2054-2064.	3.7	216
121	Do spines and dendrites distribute dye evenly?. Trends in Neurosciences, 2004, 27, 445-446.	9.8	9
122	Precise Development of Functional and Anatomical Columns in the Neocortex. Neuron, 2004, 42, 789-801.	11.0	142
123	Induction of Spine Growth and Synapse Formation by Regulation of the Spine Actin Cytoskeleton. Neuron, 2004, 44, 321-334.	11.0	182
124	Development of Intrinsic Properties and Excitability of Layer 2/3 Pyramidal Neurons During a Critical Period for Sensory Maps in Rat Barrel Cortex. Journal of Neurophysiology, 2004, 92, 144-156.	2.1	87
125	Plasticity of calcium channels in dendritic spines. Nature Neuroscience, 2003, 6, 948-955.	17.1	241
126	ScanImage: Flexible software for operating laser scanning microscopes. BioMedical Engineering OnLine, 2003, 2, .	2.8	1,322

#	ARTICLE	IF	CITATIONS
127	Circuit Analysis of Experience-Dependent Plasticity in the Developing Rat Barrel Cortex. <i>Neuron</i> , 2003, 38, 277-289.	11.0	313
128	Mechanisms of Lateral Inhibition in the Olfactory Bulb: Efficiency and Modulation of Spike-Evoked Calcium Influx into Granule Cells. <i>Journal of Neuroscience</i> , 2003, 23, 7551-7558.	3.7	162
129	An Image Analysis Algorithm for Dendritic Spines. <i>Neural Computation</i> , 2002, 14, 1283-1310.	1.7	146
130	Structure and Function of Dendritic Spines. <i>Annual Review of Physiology</i> , 2002, 64, 313-353.	17.0	1,109
131	The Life Cycle of Ca <sup>2+</sup> Ions in Dendritic Spines. <i>Neuron</i> , 2002, 33, 439-452.	11.0	696
132	Activity-Dependent Synaptogenesis in the Adult Mammalian Cortex. <i>Neuron</i> , 2002, 35, 1015-1017.	11.0	129
133	Subliminal messages in hippocampal pyramidal cells. <i>Journal of Physiology</i> , 2002, 543, 397-397.	3.4	6
134	Long-term in vivo imaging of experience-dependent synaptic plasticity in adult cortex. <i>Nature</i> , 2002, 420, 788-794.	38.0	1,819
135	Facilitation at single synapses probed with optical quantal analysis. <i>Nature Neuroscience</i> , 2002, 5, 657-664.	17.1	304
136	Genetic Manipulation of the Odor-Evoked Distributed Neural Activity in the <i>Drosophila</i> Mushroom Body. <i>Neuron</i> , 2001, 29, 267-276.	11.0	85
137	Rapid Development and Plasticity of Layer 2/3 Maps in Rat Barrel Cortex In Vivo. <i>Neuron</i> , 2001, 31, 305-315.	11.0	262
138	Abnormal Development of Dendritic Spines in FMR1 Knock-Out Mice. <i>Journal of Neuroscience</i> , 2001, 21, 5139-5146.	3.7	511
139	Ca <sup>2+</sup> signaling in dendritic spines. <i>Current Opinion in Neurobiology</i> , 2001, 11, 349-356.	4.7	276
140	Experience-dependent plasticity of dendritic spines in the developing rat barrel cortex in vivo. <i>Nature</i> , 2000, 404, 876-881.	38.0	755
141	Analysis of calcium channels in single spines using optical fluctuation analysis. <i>Nature</i> , 2000, 408, 589-593.	38.0	268
142	Action potentials reliably invade axonal arbors of rat neocortical neurons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 9724-9728.	7.5	165
143	Imaging High-Resolution Structure of GFP-Expressing Neurons in Neocortex In Vivo. <i>Learning and Memory</i> , 2000, 7, 433-441.	2.0	60
144	Estimating Intracellular Calcium Concentrations and Buffering without Wavelength Ratioing. <i>Biophysical Journal</i> , 2000, 78, 2655-2667.	2.2	398

#	ARTICLE	IF	CITATIONS
145	Synaptic calcium transients in single spines indicate that NMDA receptors are not saturated. <i>Nature</i> , 1999, 399, 151-155.	38.0	306
146	In vivo dendritic calcium dynamics in deep-layer cortical pyramidal neurons. <i>Nature Neuroscience</i> , 1999, 2, 989-996.	17.1	376
147	Spread of dendritic excitation in layer 2/3 pyramidal neurons in rat barrel cortex in vivo. <i>Nature Neuroscience</i> , 1999, 2, 65-73.	17.1	260
148	Rapid Spine Delivery and Redistribution of AMPA Receptors After Synaptic NMDA Receptor Activation. <i>Science</i> , 1999, 284, 1811-1816.	36.3	1,227
149	Synaptic [Ca <sup>2+</sup> ]. <i>Neuron</i> , 1999, 22, 427-430.	11.0	101
150	Two-Photon Imaging in Living Brain Slices. <i>Methods</i> , 1999, 18, 231-239.	3.5	155
151	Photon Upmanship: Why Multiphoton Imaging Is More than a Gimmick. <i>Neuron</i> , 1997, 18, 351-357.	11.0	663
152	In vivo dendritic calcium dynamics in neocortical pyramidal neurons. <i>Nature</i> , 1997, 385, 161-165.	38.0	837
153	New insights into the workings of the ultimate swimming machine. <i>Biophysical Journal</i> , 1996, 71, 539-540.	2.2	2
154	Two-photon-excitation scanning microscopy of living neurons with a saturable Bragg reflector mode-locked diode-pumped Cr:LiSrAlF <sub>4</sub> laser. <i>Optics Letters</i> , 1996, 21, 1411.	3.0	40
155	Imaging calcium dynamics in dendritic spines. <i>Current Opinion in Neurobiology</i> , 1996, 6, 372-378.	4.7	158
156	Optical trapping of metallic Rayleigh particles. <i>Optics Letters</i> , 1994, 19, 930.	3.0	749
157	Force and velocity measured for single kinesin molecules. <i>Cell</i> , 1994, 77, 773-784.	33.7	893
158	Direct observation of kinesin stepping by optical trapping interferometry. <i>Nature</i> , 1993, 365, 721-727.	38.0	1,907
159	Acceleration transforms and statistical kinetic models. <i>Journal of Statistical Physics</i> , 1988, 52, 311-330.	1.1	34
160	Tapered whiskers are required for active tactile sensation. <i>ELife</i> , 0, 2, .	0.7	74
161	Sensitive red protein calcium indicators for imaging neural activity. <i>ELife</i> , 0, 5, .	0.7	1,087
162	A large field of view two-photon mesoscope with subcellular resolution for in vivo imaging. <i>ELife</i> , 0, 5, .	0.7	657

#	ARTICLE	IF	CITATIONS
163	Low-noise encoding of active touch by layer 4 in the somatosensory cortex. <i>ELife</i> , 0, 4, .	0.7	82
164	A platform for brain-wide imaging and reconstruction of individual neurons. <i>ELife</i> , 0, 5, .	0.7	422
165	Neural coding in barrel cortex during whisker-guided locomotion. <i>ELife</i> , 0, 4, .	0.7	117
166	Functional clustering of dendritic activity during decision-making. <i>ELife</i> , 0, 8, .	0.7	163
167	Spatiotemporal constraints on optogenetic inactivation in cortical circuits. <i>ELife</i> , 0, 8, .	0.7	225
168	Title is missing!. , 0, .		1
169	Reproducibility of in vivo electrophysiological measurements in mice. <i>ELife</i> , 0, 13, .	0.7	2
170	Expansion-assisted selective plane illumination microscopy for nanoscale imaging of centimeter-scale tissues. <i>ELife</i> , 0, 12, .	0.7	4
171	Brain-wide representations of prior information in mouse decision-making. <i>Nature</i> , 0, 645, 192-200.	38.0	44
172	A brain-wide map of neural activity during complex behaviour. <i>Nature</i> , 0, 645, 177-191.	38.0	63
173	Brain-wide analysis reveals movement encoding structured across and within brain areas. <i>Nature Neuroscience</i> , 0, 29, 147-158.	17.1	6
174	Connectivity underlying motor cortex activity during goal-directed behaviour. <i>Nature</i> , 0, 649, 416-422.	38.0	5
175	Glutamate indicators with increased sensitivity and tailored deactivation rates. <i>Nature Methods</i> , 0, 23, 417-425.	24.6	6