Alain Destexhe

List of Publications by Year
in descending order

198 papers	13,633 citations	31902 53 h-index	26548 107 g-index
298 all docs	298 docs citations	298 times ranked	8418 citing authors

#	Article	IF	Citations
1	The high-conductance state of neocortical neurons in vivo. Nature Reviews Neuroscience, 2003, 4, 739-751.	4.9	938
2	Simulation of networks of spiking neurons: A review of tools and strategies. Journal of Computational Neuroscience, 2007, 23, 349-398.	0.6	639
3	Impact of Network Activity on the Integrative Properties of Neocortical Pyramidal Neurons In Vivo. Journal of Neurophysiology, 1999, 81, 1531-1547.	0.9	551
4	Spatiotemporal Analysis of Local Field Potentials and Unit Discharges in Cat Cerebral Cortex during Natural Wake and Sleep States. Journal of Neuroscience, 1999, 19, 4595-4608.	1.7	544
5	Synthesis of models for excitable membranes, synaptic transmission and neuromodulation using a common kinetic formalism. Journal of Computational Neuroscience, 1994, 1, 195-230.	0.6	508
6	Why do we sleep?11Published on the World Wide Web on 7 November 2000.. Brain Research, 2000, 886, 208-223.	1.1	466
7	Impact of Spontaneous Synaptic Activity on the Resting Properties of Cat Neocortical Pyramidal Neurons In Vivo. Journal of Neurophysiology, 1998, 79, 1450-1460.	0.9	398
8	Mechanisms Underlying the Synchronizing Action of Corticothalamic Feedback Through Inhibition of Thalamic Relay Cells. Journal of Neurophysiology, 1998, 79, 999-1016.	0.9	337
9	Are corticothalamic â€˜upâ€™ states fragments of wakefulness?. Trends in Neurosciences, 2007, 30, 334-342.	4.2	320
10	Dendritic Low-Threshold Calcium Currents in Thalamic Relay Cells. Journal of Neuroscience, 1998, 18, 3574-3588.	1.7	306
11	Spatiotemporal Patterns of Spindle Oscillations in Cortex and Thalamus. Journal of Neuroscience, 1997, 17, 1179-1196.	1.7	290
12	Modeling Extracellular Field Potentials and the Frequency-Filtering Properties of Extracellular Space. Biophysical Journal, 2004, 86, 1829-1842.	0.2	264
13	Minimal Hodgkinâ€“Huxley type models for different classes of cortical and thalamic neurons. Biological Cybernetics, 2008, 99, 427-441.	0.6	241
14	Spike-and-Wave Oscillations Based on the Properties of GABA_BReceptors. Journal of Neuroscience, 1998, 18, 9099-9111.	1.7	240
15	Plasticity in single neuron and circuit computations. Nature, 2004, 431, 789-795.	13.7	239
16	Inhibition Determines Membrane Potential Dynamics and Controls Action Potential Generation in Awake and Sleeping Cat Cortex. Journal of Neuroscience, 2007, 27, 5280-5290.	1.7	226
17	Synaptic Background Activity Enhances the Responsiveness of Neocortical Pyramidal Neurons. Journal of Neurophysiology, 2000, 84, 1488-1496.	0.9	220
18	Neuronal Computations with Stochastic Network States. Science, 2006, 314, 85-90.	6.0	219

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19	Dynamic Balance of Excitation and Inhibition in Human and Monkey Neocortex. Scientific Reports, 2016, 6, 23176.	1.6	212
20	Self-sustained asynchronous irregular states and Upâ€“Down states in thalamic, cortical and thalamocortical networks of nonlinear integrate-and-fire neurons. Journal of Computational Neuroscience, 2009, 27, 493-506.	0.6	193
21	Inhibition recruitment in prefrontal cortex during sleep spindles and gating of hippocampal inputs. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17207-17212.	3.3	191
22	Macroscopic Models of Local Field Potentials and the Apparent 1/f Noise in Brain Activity. Biophysical Journal, 2009, 96, 2589-2603.	0.2	184
23	The stimulus-evoked population response in visual cortex of awake monkey is a propagating wave. Nature Communications, 2014, 5, 3675.	5.8	171
24	Spatiotemporal dynamics of neocortical excitation and inhibition during human sleep. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1731-1736.	3.3	166
25	Intracellular and Computational Characterization of the Intracortical Inhibitory Control of Synchronized Thalamic Inputs In Vivo. Journal of Neurophysiology, 1997, 78, 335-350.	0.9	161
26	Can Power-Law Scaling and Neuronal Avalanches Arise from Stochastic Dynamics?. PLoS ONE, 2010, 5, e8982.	1.1	160
27	Synaptic background activity controls spike transfer from thalamus to cortex. Nature Neuroscience, 2005, 8, 1760-1767.	7.1	155
28	Cortical Feedback Controls the Frequency and Synchrony of Oscillations in the Visual Thalamus. Journal of Neuroscience, 2000, 20, 7478-7488.	1.7	151
29	A Master Equation Formalism for Macroscopic Modeling of Asynchronous Irregular Activity States. Neural Computation, 2009, 21, 46-100.	1.3	149
30	Power-law statistics and universal scaling in the absence of criticality. Physical Review E, 2017, 95, 012413.	0.8	149
31	The Wilsonâ€“Cowan model, 36Âyears later. Biological Cybernetics, 2009, 101, 1-2.	0.6	144
32	The Scientific Case for Brain Simulations. Neuron, 2019, 102, 735-744.	3.8	123
33	Comparative power spectral analysis of simultaneous elecroencephalographic and magnetoencephalographic recordings in humans suggests non-resistive extracellular media. Journal of Computational Neuroscience, 2010, 29, 405-421.	0.6	114
34	Prediction of Spatiotemporal Patterns of Neural Activity from Pairwise Correlations. Physical Review Letters, 2009, 102, 138101.	2.9	107
35	Tuning neocortical pyramidal neurons between integrators and coincidence detectors. Journal of Computational Neuroscience, 2003, 14, 239-251.	0.6	106
36	A Fast-Conducting, Stochastic Integrative Mode for Neocortical NeuronsInVivo. Journal of Neuroscience, 2003, 23, 2466-2476.	1.7	103

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37	A Method to Estimate Synaptic Conductances From Membrane Potential Fluctuations. Journal of Neurophysiology, 2004, 91, 2884-2896.	0.9	102
38	Characterization of Synaptic Conductances and Integrative Properties During Electrically Induced EEG-Activated States in Neocortical Neurons In Vivo. Journal of Neurophysiology, 2005, 94, 2805-2821.	0.9	93
39	Conductance-Based Integrate-and-Fire Models. Neural Computation, 1997, 9, 503-514.	1.3	87
40	Modelling corticothalamic feedback and the gating of the thalamus by the cerebral cortex. Journal of Physiology (Paris), 2000, 94, 391-410.	2.1	87
41	Can GABAAconductances explain the fast oscillation frequency of absence seizures in rodents?. European Journal of Neuroscience, 1999, 11, 2175-2181.	1.2	85
42	Dynamic Interactions Determine Partial Thalamic Quiescence in a Computer Network Model of Spike-and-Wave Seizures. Journal of Neurophysiology, 1997, 77, 1679-1696.	0.9	82
43	Local field potentials primarily reflect inhibitory neuron activity in human and monkey cortex. Scientific Reports, 2017, 7, 40211.	1.6	82
44	Correlated input reveals coexisting coding schemes in a sensory cortex. Nature Neuroscience, 2012, 15, 1691-1699.	7.1	79
45	Neuronal Noise. , 2012, , .		78
46	Avalanche Analysis from Multielectrode Ensemble Recordings in Cat, Monkey, and Human Cerebral Cortex during Wakefulness and Sleep. Frontiers in Physiology, 2012, 3, 302.	1.3	74
47	A comprehensive workflow for general-purpose neural modeling with highly configurable neuromorphic hardware systems. Biological Cybernetics, 2011, 104, 263-296.	0.6	72
48	Propagating waves in thalamus, cortex and the thalamocortical system: Experiments and models. Journal of Physiology (Paris), 2012, 106, 222-238.	2.1	71
49	Network-State Modulation of Power-Law Frequency-Scaling in Visual Cortical Neurons. PLoS Computational Biology, 2009, 5, e1000519.	1.5	70
50	Correlation Detection and Resonance in Neural Systems with Distributed Noise Sources. Physical Review Letters, 2001, 86, 3662-3665.	2.9	69
51	High-Resolution Intracellular Recordings Using a Real-Time Computational Model of the Electrode. Neuron, 2008, 59, 379-391.	3.8	69
52	Oscillations, complex spatiotemporal behavior, and information transport in networks of excitatory and inhibitory neurons. Physical Review E, 1994, 50, 1594-1606.	0.8	67
53	High-frequency oscillations in human and monkey neocortex during the wakeâ€“sleep cycle. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9363-9368.	3.3	67
54	The Human Brain Projectâ€”Synergy between neuroscience, computing, informatics, and brain-inspired technologies. PLoS Biology, 2019, 17, e3000344.	2.6	64

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55	Biologically Realistic Mean-Field Models of Conductance-Based Networks of Spiking Neurons with Adaptation. Neural Computation, 2019, 31, 653-680.	1.3	64
56	Evidence for frequency-dependent extracellular impedance from the transfer function between extracellular and intracellular potentials. Journal of Computational Neuroscience, 2010, 29, 389-403.	0.6	63
57	Analytical Integrate-and-Fire Neuron Models with Conductance-Based Dynamics for Event-Driven Simulation Strategies. Neural Computation, 2006, 18, 2146-2210.	1.3	61
58	Hyperpolarization-activated graded persistent activity in the prefrontal cortex. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7298-7303.	3.3	59
59	Nonlinear thermodynamic models of voltage-dependent currents. Journal of Computational Neuroscience, 2000, 9, 259-270.	0.6	58
60	Generalized theory for current-source-density analysis in brain tissue. Physical Review E, 2011, 84, 041909.	0.8	57
61	BIOPHYSICAL AND PHENOMENOLOGICAL MODELS OF MULTIPLE SPIKE INTERACTIONS IN SPIKE-TIMING DEPENDENT PLASTICITY. International Journal of Neural Systems, 2006, 16, 79-97.	3.2	56
62	Extracellular spikes and CSD. , 0, , 92-135.		55
63	Modeling mesoscopic cortical dynamics using a mean-field model of conductance-based networks of adaptive exponential integrate-and-fire neurons. Journal of Computational Neuroscience, 2018, 44, 45-61.	0.6	55
64	The initiation of bursts in thalamic neurons and the cortical control of thalamic sensitivity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 1649-1657.	1.8	54
65	Do neocortical pyramidal neurons display stochastic resonance?. , 2001, 11, 19-42.		52
66	Topologically invariant macroscopic statistics in balanced networks of conductance-based integrate-and-fire neurons. Journal of Computational Neuroscience, 2011, 31, 229-245.	0.6	51
67	Gain Modulation of Synaptic Inputs by Network State in Auditory CortexIn Vivo. Journal of Neuroscience, 2015, 35, 2689-2702.	1.7	49
68	Chapter 17 Thalamic and thalamocortical mechanisms underlying 3 Hz spike-and-wave discharges. Progress in Brain Research, 1999, 121, 289-307.	0.9	48
69	Intracellular Impedance Measurements Reveal Non-ohmic Properties of the Extracellular Medium around Neurons. Biophysical Journal, 2016, 110, 234-246.	0.2	48
70	LTS cells in cerebral cortex and their role in generating spike-and-wave oscillations. Neurocomputing, 2001, 38-40, 555-563.	3.5	47
71	Intracellular and computational evidence for a dominant role of internal network activity in cortical computations. Current Opinion in Neurobiology, 2011, 21, 717-725.	2.0	46
72	Enhanced Responsiveness and Low-Level Awareness in Stochastic Network States. Neuron, 2017, 94, 1002-1009.	3.8	44

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73	Characterization and Compensation of Network-Level Anomalies in Mixed-Signal Neuromorphic Modeling Platforms. PLoS ONE, 2014, 9, e108590.	1.1	42
74	Characterizing synaptic conductance fluctuations in cortical neurons and their influence on spike generation. Journal of Neuroscience Methods, 2008, 169, 302-322.	1.3	41
75	Generalized cable theory for neurons in complex and heterogeneous media. Physical Review E, 2013, 88, 022709.	0.8	39
76	A mean-field approach to the dynamics of networks of complex neurons, from nonlinear Integrate-and-Fire to Hodgkinâ€“Huxley models. Journal of Neurophysiology, 2020, 123, 1042-1051.	0.9	38
77	Heterogeneous firing rate response of mouse layer V pyramidal neurons in the fluctuationâ€driven regime. Journal of Physiology, 2016, 594, 3791-3808.	1.3	37
78	Local recording of biological magnetic fields using Giant Magneto Resistance-based micro-probes. Scientific Reports, 2016, 6, 39330.	1.6	37
79	Suppressive Traveling Waves Shape Representations of Illusory Motion in Primary Visual Cortex of Awake Primate. Journal of Neuroscience, 2019, 39, 4282-4298.	1.7	36
80	Activated cortical states: Experiments, analyses and models. Journal of Physiology (Paris), 2007, 101, 99-109.	2.1	35
81	Extracting Information from the Power Spectrum of Synaptic Noise. Journal of Computational Neuroscience, 2004, 17, 327-345.	0.6	33
82	Non-homogeneous extracellular resistivity affects the current-source density profiles of upâ€“down state oscillations. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 3802-3819.	1.6	32
83	Cholinergic Switch between Two Types of Slow Waves in Cerebral Cortex. Cerebral Cortex, 2020, 30, 3451-3466.	1.6	32
84	How much can we trust neural simulation strategies?. Neurocomputing, 2007, 70, 1966-1969.	3.5	31
85	A Modified Cable Formalism for Modeling Neuronal Membranes at High Frequencies. Biophysical Journal, 2008, 94, 1133-1143.	0.2	31
86	State Dependence of Network Output: Modeling and Experiments. Journal of Neuroscience, 2008, 28, 11806-11813.	1.7	31
87	Do neurons generate monopolar current sources?. Journal of Neurophysiology, 2012, 108, 953-955.	0.9	31
88	Simplified models of neocortical pyramidal cells preserving somatodendritic voltage attenuation. Neurocomputing, 2001, 38-40, 167-173.	3.5	30
89	Maximum-entropy models reveal the excitatory and inhibitory correlation structures in cortical neuronal activity. Physical Review E, 2018, 98, 012402.	0.8	29
90	Calculating Event-Triggered Average Synaptic Conductances From the Membrane Potential. Journal of Neurophysiology, 2007, 97, 2544-2552.	0.9	28

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91	Bridging Single Neuron Dynamics to Global Brain States. Frontiers in Systems Neuroscience, 2019, 13, 75.	1.2	28
92	Local field potential. Scholarpedia Journal, 2013, 8, 10713.	0.3	28
93	Tunable neuromimetic integrated system for emulating cortical neuron models. Frontiers in Neuroscience, 2011, 5, 134.	1.4	26
94	Stable Learning in Stochastic Network States. Journal of Neuroscience, 2012, 32, 194-214.	1.7	25
95	Kinetic models of spike-timing dependent plasticity and their functional consequences in detecting correlations. Biological Cybernetics, 2007, 97, 81-97.	0.6	24
96	Improving voltage-sensitive dye imaging: with a little help from computational approaches. Neurophotonics, 2017, 4, 031215.	1.7	24
97	Is There Sufficient Evidence for Criticality in Cortical Systems?. ENeuro, 2021, 8, ENEURO.0551-20.2021.	0.9	24
98	BRAIN DYNAMICS AT MULTIPLE SCALES: CAN ONE RECONCILE THE APPARENT LOW-DIMENSIONAL CHAOS OF MACROSCOPIC VARIABLES WITH THE SEEMINGLY STOCHASTIC BEHAVIOR OF SINGLE NEURONS?. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 1687-1702.	0.7	23
99	Local field potentials. , 0, , 136-191.		23
100	Experimental and Computational Study on Motor Control and Recovery After Stroke: Toward a Constructive Loop Between Experimental and Virtual Embodied Neuroscience. Frontiers in Systems Neuroscience, 2020, 14, 31.	1.2	23
101	Conductance-Based Adaptive Exponential Integrate-and-Fire Model. Neural Computation, 2021, 33, 41-66.	1.3	23
102	A kernel-based method to calculate local field potentials from networks of spiking neurons. Journal of Neuroscience Methods, 2020, 344, 108871.	1.3	22
103	Linking Brain Structure, Activity, and Cognitive Function through Computation. ENeuro, 2022, 9, ENEURO.0316-21.2022.	0.9	22
104	On the Use of Analytical Expressions for the Voltage Distribution to Analyze Intracellular Recordings. Neural Computation, 2006, 18, 2917-2922.	1.3	21
105	Oversampling method to extract excitatory and inhibitory conductances from single-trial membrane potential recordings. Journal of Neuroscience Methods, 2012, 210, 3-14.	1.3	21
106	A framework to reconcile frequency scaling measurements, from intracellular recordings, local-field potentials, up to EEG and MEGÂsignals. Journal of Integrative Neuroscience, 2017, 16, 3-18.	0.8	21
107	Modeling seizures: From single neurons to networks. Seizure: the Journal of the British Epilepsy Association, 2021, 90, 4-8.	0.9	20
108	Modelling unitary fields and the singleâ€neuron contribution to local field potentials in the hippocampus. Journal of Physiology, 2020, 598, 3957-3972.	1.3	19

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109	Inhibitory â€œnoiseâ€• Frontiers in Cellular Neuroscience, 2010, 4, 9.	1.8	18
110	Brain networks: small-worlds, after all?. New Journal of Physics, 2014, 16, 105004.	1.2	18
111	Corticothalamic Feedback. , 2008, , 184-214.		17
112	Comparison of different neuron models to conductance-based post-stimulus time histograms obtained in cortical pyramidal cells using dynamic-clamp in vitro. Biological Cybernetics, 2011, 105, 167-180.	0.6	16
113	Electrophysiological monitoring of inhibition in mammalian species, from rodents to humans. Neurobiology of Disease, 2019, 130, 104500.	2.1	16
114	A new computational approach to estimate whole-brain effective connectivity from functional and structural MRI, applied to language development. Scientific Reports, 2019, 9, 8479.	1.6	16
115	Inferring network activity from synaptic noise. Journal of Physiology (Paris), 2004, 98, 452-466.	2.1	15
116	A non-parametric electrode model for intracellular recording. Neurocomputing, 2007, 70, 1597-1601.	3.5	15
117	Analog-digital simulations of full conductance-based networks of spiking neurons with spike timing dependent plasticity. Network: Computation in Neural Systems, 2006, 17, 211-233.	2.2	14
118	Analytical Integrate-and-Fire Neuron Models with Conductance-Based Dynamics and Realistic Postsynaptic Potential Time Course for Event-Driven Simulation Strategies. Neural Computation, 2012, 24, 1426-1461.	1.3	14
119	Modulation of intercolumnar synchronization by endogenous electric fields in cerebral cortex. Science Advances, 2021, 7, .	4.7	14
120	High-conductance state. Scholarpedia Journal, 2007, 2, 1341.	0.3	14
121	Generalized cable formalism to calculate the magnetic field of single neurons and neuronal populations. Physical Review E, 2014, 90, 042723.	0.8	12
122	Optimal responsiveness and information flow in networks of heterogeneous neurons. Scientific Reports, 2021, 11, 17611.	1.6	12
123	A novel method for characterizing synaptic noise in cortical neurons. Neurocomputing, 2004, 58-60, 191-196.	3.5	11
124	High discharge variability in neurons driven by current noise. Neurocomputing, 2005, 65-66, 493-498.	3.5	11
125	Intracellular recording. , 2012, , 44-91.		11
126	Nonstationary filtered shot-noise processes and applications to neuronal membranes. Physical Review E, 2015, 91, 062102.	0.8	11

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127	Integration, coincidence detection and resonance in networks of spiking neurons expressing Gamma oscillations and asynchronous states. PLoS Computational Biology, 2021, 17, e1009416.	1.5	11
128	Modeling extracellular potentials. Journal of Computational Neuroscience, 2010, 29, 367-369.	0.6	9
129	Is the Extracellular Impedance High and Non-resistive in Cerebral Cortex?. Biophysical Journal, 2017, 113, 1639-1642.	0.2	9
130	State-dependent mean-field formalism to model different activity states in conductance-based networks of spiking neurons. Physical Review E, 2019, 100, 062413.	0.8	9
131	Dendritic sodium spikes endow neurons with inverse firing rate response to correlated synaptic activity. Journal of Computational Neuroscience, 2018, 45, 223-234.	0.6	8
132	In Silico, Computer Simulations from Neurons up to the Whole Brain. ENeuro, 2021, 8, ENEURO.0124-21.2021.	0.9	8
133	Refractoriness Accounts for Variable Spike Burst Responses in Somatosensory Cortex. ENeuro, 2017, 4, ENEURO.0173-17.2017.	0.9	8
134	Synaptic background activity affects the dynamics of dendritic integration in model neocortical pyramidal neurons. Neurocomputing, 2001, 38-40, 327-333.	3.5	7
135	Simulating cortical network activity states constrained by intracellular recordings. Neurocomputing, 2004, 58-60, 285-290.	3.5	7
136	Dendrites Do It in Sequences. Science, 2010, 329, 1611-1612.	6.0	7
137	Reply to Gratiy et al.. Journal of Neurophysiology, 2013, 109, 1683-1683.	0.9	7
138	26th Annual Computational Neuroscience Meeting (CNS*2017): Part 2. BMC Neuroscience, 2017, 18, .	0.8	7
139	Spike-and-wave oscillations. Scholarpedia Journal, 2007, 2, 1402.	0.3	7
140	Network Models of Absence Seizures. , 2014, , 11-35.		6
141	Heterogeneous firing responses predict diverse couplings to presynaptic activity in mice layer V pyramidal neurons. PLoS Computational Biology, 2017, 13, e1005452.	1.5	6
142	Contribution of the Axon Initial Segment to Action Potentials Recorded Extracellularly. ENeuro, 2018, 5, ENEURO.0068-18.2018.	0.9	6
143	Adaptive control of Lipschitz time-delay systems by sigma modification with application to neuronal population dynamics. Systems and Control Letters, 2022, 159, 105082.	1.3	6
144	Re-creating active states in vitro with a dynamic-clamp protocol. Neurocomputing, 2005, 65-66, 55-60.	3.5	5

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145	Event-based simulation strategy for conductance-based synaptic interactions and plasticity. Neurocomputing, 2006, 69, 1130-1133.	3.5	5
146	Characterizing neuronal activity by describing the membrane potential as a stochastic process. Journal of Physiology (Paris), 2009, 103, 98-106.	2.1	5
147	Pairwise Ising Model Analysis of Human Cortical Neuron Recordings. Lecture Notes in Computer Science, 2017, , 257-264.	1.0	5
148	Mean-Field Formulation of Maxwell Equations to Model Electrically Inhomogeneous and Isotropic Media. Journal of Electromagnetic Analysis and Applications, 2014, 06, 296-302.	0.1	5
149	Modeling Voltage-Dependent Channels. , 2009, , 107-138.		5
150	Properties and Computational Consequences of Fast Dendritic Spikes during Natural Behavior. Neuroscience, 2022, 489, 251-261.	1.1	5
151	Extracellular and intracellular components ofÂtheÂimpedance of neural tissue. Biophysical Journal, 2022, 121, 869-885.	0.2	5
152	Gain modulation and frequency locking under conductance noise. Neurocomputing, 2003, 52-54, 907-912.	3.5	4
153	Estimation of synaptic conductances and their variances from intracellular recordings of neocortical neurons in vivo. Neurocomputing, 2004, 58-60, 387-392.	3.5	4
154	Re-Creating In Vivo-Like Activity and Investigating the Signal Transfer Capabilities of Neurons: Dynamic-Clamp Applications Using Real-Time Neuron. , 2009, , 287-320.		4
155	Comparative power spectral analysis of simultaneous electroencephalographic and magnetoencephalographic recordings in humans suggests non-resistive extracellular media. Journal of Computational Neuroscience, 2010, , 1.	0.6	3
156	Adaptive Scheme for Pathological Oscillations Disruption in a Delayed Neuronal Population Model. , 2018, , .		3
157	Cellular correlates of wakefulness and slow-wave sleep: evidence for a key role of inhibition. Current Opinion in Physiology, 2020, 15, 68-73.	0.9	3
158	Associating Living Cells and Computational Models: an Introduction to Dynamic Clamp Principles and its Applications. , 2009, , 1-30.		3
159	Multi-channel shot noise and characterization of cortical network activity. Neurocomputing, 2005, 65-66, 641-646.	3.5	2
160	COMPLEXITY IN NEURONAL NETWORKS. Complex Systems and Interdisciplinary Science, 2007, , 291-340.	0.2	2
161	Microscale impedance measurements suggest that ionic diffusion is implicated in generating extracellular potentials. BMC Neuroscience, 2014, 15, .	0.8	2
162	An Anatomically Constrained Model of V1 Simple Cells Predicts the Coexistence of Pushâ€“Pull and Broad Inhibition. Journal of Neuroscience, 2021, 41, 7797-7812.	1.7	2

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163	Local Field Potential, Relationship to Unit Activity. , 2014, , 1-6.		2
164	A method to convert neural signals into sound sequences. Journal of the Acoustical Society of America, 2022, 151, 3685-3689.	0.5	2
165	Biophysics of Computation: Information Processing in Single Neurons, by Christof Koch. Trends in Cognitive Sciences, 1999, 3, 444.	4.0	1
166	Location independence and fast conduction of synaptic inputs in neocortical neurons in vivo. Neurocomputing, 2003, 52-54, 233-238.	3.5	1
167	Extracting information from the power spectrum of voltage noise. Neurocomputing, 2005, 65-66, 901-906.	3.5	1
168	Methods for computational neuroscience. Journal of Neuroscience Methods, 2008, 169, 269-270.	1.3	1
169	Spatiotemporal aspects of slow-waves and seizures in humans. Brain, 2010, 133, 2514-2515.	3.7	1
170	Voltage-sensitive dye imaging. , 0, , 327-361.		1
171	Noisy Dendrites: Models of Dendritic Integration In Vivo. Springer Series in Computational Neuroscience, 2014, , 173-190.	0.3	1
172	Local Field Potential Interaction with the Extracellular Medium. , 2014, , 1-10.		1
173	A Master Equation Formalism for Macroscopic Modeling of Asynchronous Irregular Activity States. Neural Computation, 2008, .	1.3	1
174	Dynamic Clamp with High-Resistance Electrodes Using Active Electrode Compensation In Vitro and In Vivo. , 2009, , 347-382.		1
175	Convergence in an Adaptive Neural Network: The Influence of Noise Inputs Correlation. Lecture Notes in Computer Science, 2009, , 140-148.	1.0	1
176	Local Field Potential, Relationship to Unit Activity. , 2020, , 1-6.		1
177	Mesoscopic model of balanced neuron networks using a Master equation formalism. BMC Neuroscience, 2007, 8, .	0.8	0
178	Inhibitory conductance dynamics in cortical neurons during activated states. Neurocomputing, 2007, 70, 1602-1604.	3.5	0
179	Analytical integrate-and-fire neuron models with conductance-based dynamics and realistic PSP time course for event-driven simulation strategies. BMC Neuroscience, 2009, 10, .	0.8	0
180	A model of propagating waves in cerebral cortex across network states. BMC Neuroscience, 2011, 12, .	0.8	0

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181	20 Years of â€œNoiseâ€: Contributions of Computational Neuroscience to the Exploration of the Effect of Background Activity on Central Neurons. , 2013, , 167-186.		0
182	Excitatory and inhibitory contributions to local field potentials in human and monkey. BMC Neuroscience, 2013, 14, .	0.8	0
183	How neuronal computations depend on network state: another piece in the puzzle. Journal of Physiology, 2014, 592, 3339-3339.	1.3	0
184	Measurement of propagating waves from local field potentials and unit activity in the cortex of human and monkey. BMC Neuroscience, 2014, 15, .	0.8	0
185	Cable equation formalism for neuronal magnetic fields. BMC Neuroscience, 2014, 15, .	0.8	0
186	Adaptive stimulation strategy for selective brain oscillations disruption in a neuronal population model with delays. IFAC-PapersOnLine, 2019, 51, 250-251.	0.5	0
187	Editorial: new article type â€œperspectiveâ€. Journal of Computational Neuroscience, 2021, 49, 69-69.	0.6	0
188	Cortical propagating waves: amplifying and suppressive?. Journal of Computational Neuroscience, 2021, 49, 371-373.	0.6	0
189	Testing Methods for Synaptic Conductance Analysis Using Controlled Conductance Injection with Dynamic Clamp. , 2009, , 115-140.		0
190	LFP Analysis: Overview. , 2014, , 1-5.		0
191	Local Field Potentials (LFP). , 2014, , 1-11.		0
192	Generalized Cable Models of Neurons and Dendrites. , 2016, , 3037-3047.		0
193	Local Field Potentials: LFP. , 2020, , 1-12.		0
194	Local Field Potentials: Interaction with the Extracellular Medium. , 2020, , 1-9.		0
195	Local Field Potentials: Interaction with the Extracellular Medium. , 2022, , 1895-1903.		0
196	Local Field Potential, Relationship to Unit Activity. , 2022, , 1865-1870.		0
197	Local Field Potentials: LFP. , 2022, , 1903-1914.		0
198	LFP Analysis: Overview. , 2022, , 66-70.		0