

Gyorgy Buzsaki

List of Publications by Year in descending order

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263
papers

83,183
citations

664

126
h-index

884

249
g-index

298
all docs

298
docs citations

298
times ranked

42956
citing authors

#	ARTICLE	IF	CITATIONS
1	A Miniaturized 256-Channel Neural Recording Interface With Area-Efficient Hybrid Integration of Flexible Probes and CMOS Integrated Circuits. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 334-346.	2.5	17
2	Neurophysiology of Remembering. <i>Annual Review of Psychology</i> , 2022, 73, 187-215.	9.9	25
3	A 3.1-5.2GHz, Energy-Efficient Single Antenna, Cancellation-Free, Bitwise Time-Division Duplex Transceiver for High Channel Count Optogenetic Neural Interface. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2022, 16, 52-63.	2.7	7
4	Probing subthreshold dynamics of hippocampal neurons by pulsed optogenetics. <i>Science</i> , 2022, 375, 570-574.	6.0	39
5	Extrinsic control and intrinsic computation in the hippocampal CA1 circuit. <i>Neuron</i> , 2022, 110, 658-673.e5.	3.8	42
6	Inhibition allocates spikes during hippocampal ripples. <i>Nature Communications</i> , 2022, 13, 1280.	5.8	17
7	Brain temperature affects quantitative features of hippocampal sharp wave ripples. <i>Journal of Neurophysiology</i> , 2022, 127, 1417-1425.	0.9	12
8	HectoSTAR ¼LED Optoelectrodes for Large-Scale, High-Precision In Vivo Opto-Electrophysiology. <i>Advanced Science</i> , 2022, 9, e2105414.	5.6	20
9	Brain-wide interactions during hippocampal sharp wave ripples. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2200931119.	3.3	34
10	Action-driven remapping of hippocampal neuronal populations in jumping rats. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	5
11	Emerging principles of spacetime in brains: Meeting report on spatial neurodynamics. <i>Neuron</i> , 2022, 110, 1894-1898.	3.8	7
12	Neuronal activity under transcranial radio-frequency stimulation in metal-free rodent brains in-vivo. , 2022, 1, .		11
13	Subcircuits of Deep and Superficial CA1 Place Cells Support Efficient Spatial Coding across Heterogeneous Environments. <i>Neuron</i> , 2021, 109, 363-376.e6.	3.8	49
14	Mechanisms and plasticity of chemogenically induced interneuronal suppression of principal cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	19
15	3D-printed Recoverable Microdrive and Base Plate System for Rodent Electrophysiology. <i>Bio-protocol</i> , 2021, 11, e4137.	0.2	12
16	Sleep down state-active ID2/Nkx2.1 interneurons in the neocortex. <i>Nature Neuroscience</i> , 2021, 24, 401-411.	7.1	46
17	Preexisting hippocampal network dynamics constrain optogenetically induced place fields. <i>Neuron</i> , 2021, 109, 1040-1054.e7.	3.8	80
18	Spatiotemporal dynamics between interictal epileptiform discharges and ripples during associative memory processing. <i>Brain</i> , 2021, 144, 1590-1602.	3.7	32

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19	Cholinergic suppression of hippocampal sharp-wave ripples impairs working memory. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	46
20	Gamma rhythm communication between entorhinal cortex and dentate gyrus neuronal assemblies. Science, 2021, 372, .	6.0	121
21	Metal microdrive and head cap system for silicon probe recovery in freely moving rodent. ELife, 2021, 10, .	2.8	28
22	A transient postnatal quiescent period precedes emergence of mature cortical dynamics. ELife, 2021, 10, .	2.8	11
23	A metabolic function of the hippocampal sharp wave-ripple. Nature, 2021, 597, 82-86.	13.7	44
24	CellExplorer: A framework for visualizing and characterizing single neurons. Neuron, 2021, 109, 3594-3608.e2.	3.8	56
25	Recruitment and inhibitory action of hippocampal axo-axonic cells during behavior. Neuron, 2021, 109, 3838-3850.e8.	3.8	44
26	Routing of Hippocampal Ripples to Subcortical Structures via the Lateral Septum. Neuron, 2020, 105, 138-149.e5.	3.8	41
27	Cooling of Medial Septum Reveals Theta Phase Lag Coordination of Hippocampal Cell Assemblies. Neuron, 2020, 107, 731-744.e3.	3.8	58
28	Artifact-free and high-temporal-resolution in vivo opto-electrophysiology with microLED optoelectrodes. Nature Communications, 2020, 11, 2063.	5.8	89
29	Variable specificity of memory trace reactivation during hippocampal sharp wave ripples. Current Opinion in Behavioral Sciences, 2020, 32, 126-135.	2.0	24
30	Propagation of hippocampal ripples to the neocortex by way of a subiculum-retrosplenial pathway. Nature Communications, 2020, 11, 1947.	5.8	73
31	The Brainâ€™Cognitive Behavior Problem: A Retrospective. ENeuro, 2020, 7, ENEURO.0069-20.2020.	0.9	99
32	Utility of the Idling Brain: Abstraction of New Knowledge. Cell, 2019, 178, 513-515.	13.5	4
33	NREM sleep in the rodent neocortex and hippocampus reflects excitable dynamics. Nature Communications, 2019, 10, 2478.	5.8	75
34	Long-duration hippocampal sharp wave ripples improve memory. Science, 2019, 364, 1082-1086.	6.0	308
35	Positionâ€™theta-phase model of hippocampal place cell activity applied to quantification of running speed modulation of firing rate. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 27035-27042.	3.3	16
36	Layer-Specific Physiological Features and Interlaminar Interactions in the Primary Visual Cortex of the Mouse. Neuron, 2019, 101, 500-513.e5.	3.8	191

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37	The Brain from Inside Out. , 2019, , .		178
38	Closed-Loop Acoustic Stimulation Enhances Sleep Oscillations But Not Memory Performance. ENeuro, 2019, 6, ENEURO.0306-19.2019.	0.9	55
39	High-Density Stretchable Electrode Grids for Chronic Neural Recording. Advanced Materials, 2018, 30, e1706520.	11.1	211
40	Direct effects of transcranial electric stimulation on brain circuits in rats and humans. Nature Communications, 2018, 9, 483.	5.8	532
41	A Shared Vision for Machine Learning in Neuroscience. Journal of Neuroscience, 2018, 38, 1601-1607.	1.7	121
42	Temporal coupling of field potentials and action potentials in the neocortex. European Journal of Neuroscience, 2018, 48, 2482-2497.	1.2	102
43	Origin of Gamma Frequency Power during Hippocampal Sharp-Wave Ripples. Cell Reports, 2018, 25, 1693-1700.e4.	2.9	61
44	Real-Time Readout of Large-Scale Unsorted Neural Ensemble Place Codes. Cell Reports, 2018, 25, 2635-2642.e5.	2.9	20
45	Immediate neurophysiological effects of transcranial electrical stimulation. Nature Communications, 2018, 9, 5092.	5.8	338
46	Space and Time: The Hippocampus as a Sequence Generator. Trends in Cognitive Sciences, 2018, 22, 853-869.	4.0	271
47	Transformation of a Spatial Map across the Hippocampal-Lateral Septal Circuit. Neuron, 2018, 98, 1229-1242.e5.	3.8	79
48	A High-Resolution Opto-Electrophysiology System With a Miniature Integrated Headstage. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1065-1075.	2.7	26
49	Cocaine Place Conditioning Strengthens Location-Specific Hippocampal Coupling to the Nucleus Accumbens. Neuron, 2018, 98, 926-934.e5.	3.8	98
50	Dual color optogenetic control of neural populations using low-noise, multishank optoelectrodes. Microsystems and Nanoengineering, 2018, 4, .	3.4	80
51	Physiological Properties and Behavioral Correlates of Hippocampal Granule Cells and Mossy Cells. Neuron, 2017, 93, 691-704.e5.	3.8	255
52	Entorhinal-CA3 Dual-Input Control of Spike Timing in the Hippocampus by Theta-Gamma Coupling. Neuron, 2017, 93, 1213-1226.e5.	3.8	233
53	Sleep regulation of the distribution of cortical firing rates. Current Opinion in Neurobiology, 2017, 44, 34-42.	2.0	63
54	Sharp wave ripples during learning stabilize the hippocampal spatial map. Nature Neuroscience, 2017, 20, 845-853.	7.1	146

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55	Viewpoints: how the hippocampus contributes to memory, navigation and cognition. Nature Neuroscience, 2017, 20, 1434-1447.	7.1	430
56	Space and time in the brain. Science, 2017, 358, 482-485.	6.0	134
57	Low frequency transcranial electrical stimulation does not entrain sleep rhythms measured by human intracranial recordings. Nature Communications, 2017, 8, 1199.	5.8	153
58	Pyramidal Cell-Interneuron Circuit Architecture and Dynamics in Hippocampal Networks. Neuron, 2017, 96, 505-520.e7.	3.8	195
59	Learning-enhanced coupling between ripple oscillations in association cortices and hippocampus. Science, 2017, 358, 369-372.	6.0	293
60	Reactivations of emotional memory in the hippocampus-amygdala system during sleep. Nature Neuroscience, 2017, 20, 1634-1642.	7.1	208
61	Transformation of the head-direction signal into a spatial code. Nature Communications, 2017, 8, 1752.	5.8	69
62	A miniature headstage for high resolution closed-loop optogenetics. , 2017, , .		5
63	Recording extracellular neural activity in the behaving monkey using a semichronic and high-density electrode system. Journal of Neurophysiology, 2016, 116, 563-574.	0.9	25
64	Excitation-Transcription Coupling in Parvalbumin-Positive Interneurons Employs a Novel CaM Kinase-Dependent Pathway Distinct from Excitatory Neurons. Neuron, 2016, 90, 292-307.	3.8	81
65	What is memory? The present state of the engram. BMC Biology, 2016, 14, 40.	1.7	277
66	Network Homeostasis and State Dynamics of Neocortical Sleep. Neuron, 2016, 90, 839-852.	3.8	259
67	Interictal epileptiform discharges induce hippocampal-cortical coupling in temporal lobe epilepsy. Nature Medicine, 2016, 22, 641-648.	15.2	221
68	Hippocampal Mechanisms for the Segmentation of Space by Goals and Boundaries. Research and Perspectives in Neurosciences, 2016, , 1-21.	0.4	7
69	Role of Hippocampal CA2 Region in Triggering Sharp-Wave Ripples. Neuron, 2016, 91, 1342-1355.	3.8	172
70	Cover Image, Volume 26, Issue 10. Hippocampus, 2016, 26, C1-C1.	0.9	0
71	Spatial coding and physiological properties of hippocampal neurons in the Cornu Ammonis subregions. Hippocampus, 2016, 26, 1593-1607.	0.9	101
72	Organic electronics for high-resolution electrocorticography of the human brain. Science Advances, 2016, 2, e1601027.	4.7	147

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73	Fiberless multicolor neural optoelectrode for in vivo circuit analysis. Scientific Reports, 2016, 6, 30961.	1.6	81
74	Memory Systems and Neural Dynamics. , 2016, , 2629-2650.		0
75	Memory Systems and Neural Dynamics. , 2016, , 1-22.		0
76	The Functional Anatomy of Time: What and When in the Brain. Trends in Cognitive Sciences, 2016, 20, 500-511.	4.0	143
77	Diversity in neural firing dynamics supports both rigid and learned hippocampal sequences. Science, 2016, 351, 1440-1443.	6.0	287
78	Spike sorting for large, dense electrode arrays. Nature Neuroscience, 2016, 19, 634-641.	7.1	671
79	Robert L. Isaacson: Pioneer of limbic system research. Hippocampus, 2015, 25, 1189-1190.	0.9	0
80	Neural Syntax in Mental Disorders. Biological Psychiatry, 2015, 77, 998-1000.	0.7	11
81	Hippocampal sharp waveâ€ripple: A cognitive biomarker for episodic memory and planning. Hippocampus, 2015, 25, 1073-1188.	0.9	1,250
82	Our skewed sense of space. Science, 2015, 347, 612-613.	6.0	12
83	Sleep, Memory & Brain Rhythms. Daedalus, 2015, 144, 67-82.	0.9	72
84	What does gamma coherence tell us about inter-regional neural communication?. Nature Neuroscience, 2015, 18, 484-489.	7.1	276
85	Internally organized mechanisms of the head direction sense. Nature Neuroscience, 2015, 18, 569-575.	7.1	216
86	Local generation of multineuronal spike sequences in the hippocampal CA1 region. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10521-10526.	3.3	86
87	Cell type- and activity-dependent extracellular correlates of intracellular spiking. Journal of Neurophysiology, 2015, 114, 608-623.	0.9	70
88	Editorial overview: Brain rhythms and dynamic coordination. Current Opinion in Neurobiology, 2015, 31, v-ix.	2.0	38
89	Neuroelectronics and Biooptics. JAMA Neurology, 2015, 72, 823.	4.5	84
90	Tools for Probing Local Circuits: High-Density Silicon Probes Combined with Optogenetics. Neuron, 2015, 86, 92-105.	3.8	284

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91	Default Distance Coding Properties in the Hippocampus. <i>Neuron</i> , 2015, 88, 242-243.	3.8	0
92	Optogenetics: 10 years after Chr2 in neuronsâ€”views from the community. <i>Nature Neuroscience</i> , 2015, 18, 1202-1212.	7.1	122
93	Monolithically Integrated 1/4LEDs on Silicon Neural Probes for High-Resolution Optogenetic Studies in Behaving Animals. <i>Neuron</i> , 2015, 88, 1136-1148.	3.8	372
94	Neurodata Without Borders: Creating a Common Data Format for Neurophysiology. <i>Neuron</i> , 2015, 88, 629-634.	3.8	171
95	NeuroGrid: recording action potentials from the surface of the brain. <i>Nature Neuroscience</i> , 2015, 18, 310-315.	7.1	745
96	Tasks for inhibitory interneurons in intact brain circuits. <i>Neuropharmacology</i> , 2015, 88, 10-23.	2.0	176
97	Neurosharing: large-scale data sets (spike, LFP) recorded from the hippocampal-entorhinal system in behaving rats. <i>F1000Research</i> , 2014, 3, 98.	0.8	54
98	Emergence of Cognition from Action. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2014, 79, 41-50.	2.0	67
99	Excitation and Inhibition Compete to Control Spiking during Hippocampal Ripples: Intracellular Study in Behaving Mice. <i>Journal of Neuroscience</i> , 2014, 34, 16509-16517.	1.7	121
100	Theta oscillations decrease spike synchrony in the hippocampus and entorhinal cortex. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20120530.	1.8	52
101	The log-dynamic brain: how skewed distributions affect network operations. <i>Nature Reviews Neuroscience</i> , 2014, 15, 264-278.	4.9	766
102	Spatially Distributed Local Fields in the Hippocampus Encode Rat Position. <i>Science</i> , 2014, 344, 626-630.	6.0	124
103	Comparison of Sleep Spindles and Theta Oscillations in the Hippocampus. <i>Journal of Neuroscience</i> , 2014, 34, 662-674.	1.7	58
104	In vivo optogenetic identification and manipulation of GABAergic interneuron subtypes. <i>Current Opinion in Neurobiology</i> , 2014, 26, 88-95.	2.0	74
105	Millisecond Timescale Synchrony among Hippocampal Neurons. <i>Journal of Neuroscience</i> , 2014, 34, 14984-14994.	1.7	60
106	Pyramidal Cell-Interneuron Interactions Underlie Hippocampal Ripple Oscillations. <i>Neuron</i> , 2014, 83, 467-480.	3.8	367
107	Large-scale, high-density (up to 512 channels) recording of local circuits in behaving animals. <i>Journal of Neurophysiology</i> , 2014, 111, 1132-1149.	0.9	276
108	Optogenetic activation of septal cholinergic neurons suppresses sharp wave ripples and enhances theta oscillations in the hippocampus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 13535-13540.	3.3	297

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109	Theta Phase Segregation of Input-Specific Gamma Patterns in Entorhinal-Hippocampal Networks. <i>Neuron</i> , 2014, 84, 470-485.	3.8	374
110	Extracellular field signatures of CA1 spiking cell assemblies during sharp wave-ripple complexes. <i>BMC Neuroscience</i> , 2013, 14, .	0.8	0
111	An implantable neural probe with monolithically integrated dielectric waveguide and recording electrodes for optogenetics applications. <i>Journal of Neural Engineering</i> , 2013, 10, 056012.	1.8	162
112	Inhibition-Induced Theta Resonance in Cortical Circuits. <i>Neuron</i> , 2013, 80, 1263-1276.	3.8	292
113	Scaling Brain Size, Keeping Timing: Evolutionary Preservation of Brain Rhythms. <i>Neuron</i> , 2013, 80, 751-764.	3.8	670
114	A BOLD statement about the hippocampal-neocortical dialogue. <i>Trends in Cognitive Sciences</i> , 2013, 17, 57-59.	4.0	5
115	Preconfigured, Skewed Distribution of Firing Rates in the Hippocampus and Entorhinal Cortex. <i>Cell Reports</i> , 2013, 4, 1010-1021.	2.9	259
116	Memory, navigation and theta rhythm in the hippocampal-entorhinal system. <i>Nature Neuroscience</i> , 2013, 16, 130-138.	7.1	1,416
117	Time, space and memory. <i>Nature</i> , 2013, 497, 568-569.	13.7	33
118	Striatal GABAergic and cortical glutamatergic neurons mediate contrasting effects of cannabinoids on cortical network synchrony. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 719-724.	3.3	63
119	Local Generation and Propagation of Ripples along the Septotemporal Axis of the Hippocampus. <i>Journal of Neuroscience</i> , 2013, 33, 17029-17041.	1.7	155
120	Biophysics of Extracellular Spikes. , 2013, , 15-36.		8
121	Cross-Frequency Phase-Phase Coupling between Theta and Gamma Oscillations in the Hippocampus. <i>Journal of Neuroscience</i> , 2012, 32, 423-435.	1.7	700
122	REM Sleep Reorganizes Hippocampal Excitability. <i>Neuron</i> , 2012, 75, 1001-1007.	3.8	275
123	Large-scale Recording of Neurons by Movable Silicon Probes in Behaving Rodents. <i>Journal of Visualized Experiments</i> , 2012, , e3568.	0.2	78
124	Control of timing, rate and bursts of hippocampal place cells by dendritic and somatic inhibition. <i>Nature Neuroscience</i> , 2012, 15, 769-775.	7.1	566
125	The Spiking Component of Oscillatory Extracellular Potentials in the Rat Hippocampus. <i>Journal of Neuroscience</i> , 2012, 32, 11798-11811.	1.7	189
126	High frequency oscillations in the intact brain. <i>Progress in Neurobiology</i> , 2012, 98, 241-249.	2.8	195

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127	Traveling Theta Waves along the Entire Septotemporal Axis of the Hippocampus. <i>Neuron</i> , 2012, 75, 410-417.	3.8	220
128	GABAergic circuits mediate the reinforcement-related signals of striatal cholinergic interneurons. <i>Nature Neuroscience</i> , 2012, 15, 123-130.	7.1	258
129	How Do Neurons Sense a Spike Burst?. <i>Neuron</i> , 2012, 73, 857-859.	3.8	11
130	A toolbox of Cre-dependent optogenetic transgenic mice for light-induced activation and silencing. <i>Nature Neuroscience</i> , 2012, 15, 793-802.	7.1	1,153
131	The origin of extracellular fields and currents – EEG, ECoG, LFP and spikes. <i>Nature Reviews Neuroscience</i> , 2012, 13, 407-420.	4.9	3,271
132	Diode probes for spatiotemporal optical control of multiple neurons in freely moving animals. <i>Journal of Neurophysiology</i> , 2012, 108, 349-363.	0.9	229
133	Closed-Loop Control of Epilepsy by Transcranial Electrical Stimulation. <i>Science</i> , 2012, 337, 735-737.	6.0	380
134	Mechanisms of Gamma Oscillations. <i>Annual Review of Neuroscience</i> , 2012, 35, 203-225.	5.0	2,160
135	Quantifying circular-linear associations: Hippocampal phase precession. <i>Journal of Neuroscience Methods</i> , 2012, 207, 113-124.	1.3	141
136	120 years of hippocampal Schaffer collaterals. <i>Hippocampus</i> , 2012, 22, 1508-1516.	0.9	12
137	Activity dynamics and behavioral correlates of CA3 and CA1 hippocampal pyramidal neurons. <i>Hippocampus</i> , 2012, 22, 1659-1680.	0.9	185
138	Brain rhythms and neural syntax: implications for efficient coding of cognitive content and neuropsychiatric disease.. <i>Dialogues in Clinical Neuroscience</i> , 2012, 14, 345-367.	1.8	404
139	Relationships between Hippocampal Sharp Waves, Ripples, and Fast Gamma Oscillation: Influence of Dentate and Entorhinal Cortical Activity. <i>Journal of Neuroscience</i> , 2011, 31, 8605-8616.	1.7	237
140	A 4ÅHz Oscillation Adaptively Synchronizes Prefrontal, VTA, and Hippocampal Activities. <i>Neuron</i> , 2011, 72, 153-165.	3.8	421
141	Hippocampal CA1 pyramidal cells form functionally distinct sublayers. <i>Nature Neuroscience</i> , 2011, 14, 1174-1181.	7.1	347
142	Axonal morphometry of hippocampal pyramidal neurons semi-automatically reconstructed after in vivo labeling in different CA3 locations. <i>Brain Structure and Function</i> , 2011, 216, 1-15.	1.2	51
143	Cell Assembly Sequences Arising from Spike Threshold Adaptation Keep Track of Time in the Hippocampus. <i>Journal of Neuroscience</i> , 2011, 31, 2828-2834.	1.7	139
144	Multi-array silicon probes with integrated optical fibers: light-assisted perturbation and recording of local neural circuits in the behaving animal. <i>European Journal of Neuroscience</i> , 2010, 31, 2279-2291.	1.2	222

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145	Temporal delays among place cells determine the frequency of population theta oscillations in the hippocampus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 7957-7962.	3.3	114
146	Intrinsic Circuit Organization and Theta- γ Oscillation Dynamics in the Entorhinal Cortex of the Rat. <i>Journal of Neuroscience</i> , 2010, 30, 11128-11142.	1.7	433
147	Distinct Representations and Theta Dynamics in Dorsal and Ventral Hippocampus. <i>Journal of Neuroscience</i> , 2010, 30, 1777-1787.	1.7	264
148	Transcranial Electric Stimulation Entrain Cortical Neuronal Populations in Rats. <i>Journal of Neuroscience</i> , 2010, 30, 11476-11485.	1.7	345
149	Neural Syntax: Cell Assemblies, Synapsembles, and Readers. <i>Neuron</i> , 2010, 68, 362-385.	3.8	1,023
150	The Effect of Spatially Inhomogeneous Extracellular Electric Fields on Neurons. <i>Journal of Neuroscience</i> , 2010, 30, 1925-1936.	1.7	169
151	Hippocampus: Network Physiology. , 2010, , 165-174.		3
152	Alteration of Theta Timescale Dynamics of Hippocampal Place Cells by a Cannabinoid Is Associated with Memory Impairment. <i>Journal of Neuroscience</i> , 2009, 29, 12597-12605.	1.7	133
153	Behavior-Dependent Coordination of Multiple Theta Dipoles in the Hippocampus. <i>Journal of Neuroscience</i> , 2009, 29, 1381-1394.	1.7	169
154	Selective suppression of hippocampal ripples impairs spatial memory. <i>Nature Neuroscience</i> , 2009, 12, 1222-1223.	7.1	1,180
155	Theta Oscillations Provide Temporal Windows for Local Circuit Computation in the Entorhinal-Hippocampal Loop. <i>Neuron</i> , 2009, 64, 267-280.	3.8	611
156	Single-Trial Phase Precession in the Hippocampus. <i>Journal of Neuroscience</i> , 2009, 29, 13232-13241.	1.7	118
157	Internally Generated Cell Assembly Sequences in the Rat Hippocampus. <i>Science</i> , 2008, 321, 1322-1327.	6.0	1,040
158	Petilla terminology: nomenclature of features of GABAergic interneurons of the cerebral cortex. <i>Nature Reviews Neuroscience</i> , 2008, 9, 557-568.	4.9	1,314
159	Behavior-dependent short-term assembly dynamics in the medial prefrontal cortex. <i>Nature Neuroscience</i> , 2008, 11, 823-833.	7.1	589
160	Advanced Neurotechnologies for Chronic Neural Interfaces: New Horizons and Clinical Opportunities. <i>Journal of Neuroscience</i> , 2008, 28, 11830-11838.	1.7	256
161	Entrainment of Neocortical Neurons and Gamma Oscillations by the Hippocampal Theta Rhythm. <i>Neuron</i> , 2008, 60, 683-697.	3.8	1,134
162	A Neural Coding Scheme Formed by the Combined Function of Gamma and Theta Oscillations. <i>Schizophrenia Bulletin</i> , 2008, 34, 974-980.	2.3	376

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163	Theta and Gamma Coordination of Hippocampal Networks during Waking and Rapid Eye Movement Sleep. <i>Journal of Neuroscience</i> , 2008, 28, 6731-6741.	1.7	314
164	Theta-Mediated Dynamics of Spatial Information in Hippocampus. <i>Journal of Neuroscience</i> , 2008, 28, 5959-5964.	1.7	54
165	Hippocampal Network Dynamics Constrain the Time Lag between Pyramidal Cells across Modified Environments. <i>Journal of Neuroscience</i> , 2008, 28, 13448-13456.	1.7	121
166	Neuronal Diversity in GABAergic Long-Range Projections from the Hippocampus. <i>Journal of Neuroscience</i> , 2007, 27, 8790-8804.	1.7	304
167	Hippocampal place cell assemblies are speed-controlled oscillators. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 8149-8154.	3.3	229
168	Gamma oscillations dynamically couple hippocampal CA3 and CA1 regions during memory task performance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 14495-14500.	3.3	378
169	Sequential structure of neocortical spontaneous activity in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 347-352.	3.3	477
170	Inhibition and Brain Work. <i>Neuron</i> , 2007, 56, 771-783.	3.8	365
171	Hilar mossy cells: functional identification and activity in vivo. <i>Progress in Brain Research</i> , 2007, 163, 199-810.	0.9	60
172	The structure of consciousness. <i>Nature</i> , 2007, 446, 267-267.	13.7	59
173	Forward and reverse hippocampal place-cell sequences during ripples. <i>Nature Neuroscience</i> , 2007, 10, 1241-1242.	7.1	934
174	How can drug discovery for psychiatric disorders be improved?. <i>Nature Reviews Drug Discovery</i> , 2007, 6, 189-201.	21.5	217
175	Three-dimensional reconstruction of the axon arbor of a CA3 pyramidal cell recorded and filled in vivo. <i>Brain Structure and Function</i> , 2007, 212, 75-83.	1.2	115
176	On the Origin of the Extracellular Action Potential Waveform: A Modeling Study. <i>Journal of Neurophysiology</i> , 2006, 95, 3113-3128.	0.9	513
177	Temporal Encoding of Place Sequences by Hippocampal Cell Assemblies. <i>Neuron</i> , 2006, 50, 145-157.	3.8	840
178	Integration and Segregation of Activity in Entorhinal-Hippocampal Subregions by Neocortical Slow Oscillations. <i>Neuron</i> , 2006, 52, 871-882.	3.8	437
179	Populations of hippocampal inhibitory neurons express different levels of cytochrome c. <i>European Journal of Neuroscience</i> , 2006, 23, 2581-2594.	1.2	124
180	Hippocampal CA3 pyramidal cells selectively innervate aspiny interneurons. <i>European Journal of Neuroscience</i> , 2006, 24, 1286-1298.	1.2	48

#	ARTICLE	IF	CITATIONS
181	Cannabinoids reveal importance of spike timing coordination in hippocampal function. <i>Nature Neuroscience</i> , 2006, 9, 1526-1533.	7.1	280
182	Klusters, NeuroScope, NDManager: A free software suite for neurophysiological data processing and visualization. <i>Journal of Neuroscience Methods</i> , 2006, 155, 207-216.	1.3	456
183	Interaction between neocortical and hippocampal networks via slow oscillations. <i>Thalamus & Related Systems</i> , 2005, 3, 245.	0.5	211
184	Synaptic plasticity and self-organization in the hippocampus. <i>Nature Neuroscience</i> , 2005, 8, 1418-1420.	7.1	33
185	Spike phase precession persists after transient intrahippocampal perturbation. <i>Nature Neuroscience</i> , 2005, 8, 67-71.	7.1	88
186	Band-Tunable and Multiplexed Integrated Circuits for Simultaneous Recording and Stimulation With Microelectrode Arrays. <i>IEEE Transactions on Biomedical Engineering</i> , 2005, 52, 1303-1311.	2.5	152
187	Theta rhythm of navigation: Link between path integration and landmark navigation, episodic and semantic memory. <i>Hippocampus</i> , 2005, 15, 827-840.	0.9	748
188	NEUROSCIENCE: Similar Is Different in Hippocampal Networks. <i>Science</i> , 2005, 309, 568-569.	6.0	7
189	Characterization of Neocortical Principal Cells and Interneurons by Network Interactions and Extracellular Features. <i>Journal of Neurophysiology</i> , 2004, 92, 600-608.	0.9	734
190	Large-scale recording of neuronal ensembles. <i>Nature Neuroscience</i> , 2004, 7, 446-451.	7.1	1,578
191	Early motor activity drives spindle bursts in the developing somatosensory cortex. <i>Nature</i> , 2004, 432, 758-761.	13.7	560
192	Neuronal Oscillations in Cortical Networks. <i>Science</i> , 2004, 304, 1926-1929.	6.0	5,316
193	Interneuron Diversity series: Circuit complexity and axon wiring economy of cortical interneurons. <i>Trends in Neurosciences</i> , 2004, 27, 186-193.	4.2	427
194	Calcium Dynamics of Cortical Astrocytic Networks In Vivo. <i>PLoS Biology</i> , 2004, 2, e96.	2.6	346
195	Brain-state- and cell-type-specific firing of hippocampal interneurons in vivo. <i>Nature</i> , 2003, 421, 844-848.	13.7	1,187
196	Organization of cell assemblies in the hippocampus. <i>Nature</i> , 2003, 424, 552-556.	13.7	788
197	Single cell contributions to network activity in the hippocampus. <i>International Congress Series</i> , 2003, 1250, 161-181.	0.2	6
198	Mechanisms of Gamma Oscillations in the Hippocampus of the Behaving Rat. <i>Neuron</i> , 2003, 37, 311-322.	3.8	872

#	ARTICLE	IF	CITATIONS
199	Place Representation within Hippocampal Networks Is Modified by Long-Term Potentiation. <i>Neuron</i> , 2003, 39, 843-853.	3.8	176
200	Massively Parallel Recording of Unit and Local Field Potentials With Silicon-Based Electrodes. <i>Journal of Neurophysiology</i> , 2003, 90, 1314-1323.	0.9	371
201	Communication between neocortex and hippocampus during sleep in rodents. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 2065-2069.	3.3	803
202	Natural logarithmic relationship between brain oscillators. <i>Thalamus & Related Systems</i> , 2003, 2, 145.	0.5	191
203	Selective Impairment of Hippocampal Gamma Oscillations in Connexin-36 Knock-Out Mouse <i>In Vivo</i> . <i>Journal of Neuroscience</i> , 2003, 23, 1013-1018.	1.7	236
204	Correlated Bursts of Activity in the Neonatal Hippocampus <i>In Vivo</i> . <i>Science</i> , 2002, 296, 2049-2052.	6.0	300
205	Homeostatic Maintenance of Neuronal Excitability by Burst Discharges <i>In Vivo</i> . <i>Cerebral Cortex</i> , 2002, 12, 893-899.	1.6	95
206	Theta Oscillations in the Hippocampus. <i>Neuron</i> , 2002, 33, 325-340.	3.8	2,754
207	Hippocampal Pyramidal Cell Interneuron Spike Transmission Is Frequency Dependent and Responsible for Place Modulation of Interneuron Discharge. <i>Journal of Neuroscience</i> , 2002, 22, RC197-RC197.	1.7	100
208	Spike train dynamics predicts theta-related phase precession in hippocampal pyramidal cells. <i>Nature</i> , 2002, 417, 738-741.	13.7	343
209	Single granule cells reliably discharge targets in the hippocampal CA3 network <i>in vivo</i> . <i>Nature Neuroscience</i> , 2002, 5, 790-795.	7.1	405
210	Temporal Interaction between Single Spikes and Complex Spike Bursts in Hippocampal Pyramidal Cells. <i>Neuron</i> , 2001, 32, 141-149.	3.8	339
211	Behavior-Dependent States of the Hippocampal Network Affect Functional Clustering of Neurons. <i>Journal of Neuroscience</i> , 2001, 21, RC145-RC145.	1.7	37
212	The application of printed circuit board technology for fabrication of multi-channel micro-drives. <i>Journal of Neuroscience Methods</i> , 2001, 105, 105-110.	1.3	26
213	Hippocampal GABAergic interneurons: a physiological perspective. , 2001, 26, 899-905.		50
214	Physiological patterns in the hippocampo-entorhinal cortex system. <i>Hippocampus</i> , 2000, 10, 457-465.	0.9	181
215	Intracellular Features Predicted by Extracellular Recordings in the Hippocampus <i>In Vivo</i> . <i>Journal of Neurophysiology</i> , 2000, 84, 390-400.	0.9	841
216	Accuracy of Tetrode Spike Separation as Determined by Simultaneous Intracellular and Extracellular Measurements. <i>Journal of Neurophysiology</i> , 2000, 84, 401-414.	0.9	1,003

#	ARTICLE	IF	CITATIONS
217	Unusual Target Selectivity of Perisomatic Inhibitory Cells in the Hilar Region of the Rat Hippocampus. <i>Journal of Neuroscience</i> , 2000, 20, 6907-6919.	1.7	76
218	Ensemble Patterns of Hippocampal CA3-CA1 Neurons during Sharp Wave-Associated Population Events. <i>Neuron</i> , 2000, 28, 585-594.	3.8	423
219	Two-Phase Computational Model Training Long-Term Memories in the Entorhinal-Hippocampal Region. <i>Annals of the New York Academy of Sciences</i> , 2000, 911, 83-111.	1.8	93
220	Replay and Time Compression of Recurring Spike Sequences in the Hippocampus. <i>Journal of Neuroscience</i> , 1999, 19, 9497-9507.	1.7	751
221	tFast Network Oscillations in the Hippocampal CA1 Region of the Behaving Rat. <i>Journal of Neuroscience</i> , 1999, 19, RC20-RC20.	1.7	278
222	Interactions between Hippocampus and Medial Septum during Sharp Waves and Theta Oscillation in the Behaving Rat. <i>Journal of Neuroscience</i> , 1999, 19, 6191-6199.	1.7	256
223	Interdependence of Multiple Theta Generators in the Hippocampus: a Partial Coherence Analysis. <i>Journal of Neuroscience</i> , 1999, 19, 6200-6212.	1.7	198
224	Sustained activation of hippocampal pyramidal cells by γ -space clamping™ in a running wheel. <i>European Journal of Neuroscience</i> , 1999, 11, 344-352.	1.2	260
225	Firing rate and theta-phase coding by hippocampal pyramidal neurons during γ -space clamping™. <i>European Journal of Neuroscience</i> , 1999, 11, 4373-4380.	1.2	109
226	Hebbian modification of a hippocampal population pattern in the rat. <i>Journal of Physiology</i> , 1999, 521, 159-167.	1.3	110
227	High-frequency oscillations in human brain. <i>Hippocampus</i> , 1999, 9, 137-142.	0.9	617
228	Oscillatory Coupling of Hippocampal Pyramidal Cells and Interneurons in the Behaving Rat. <i>Journal of Neuroscience</i> , 1999, 19, 274-287.	1.7	851
229	High-frequency oscillations in human brain. , 1999, 9, 137.		10
230	Entorhinal cortical innervation of parvalbumin-containing neurons (basket and chandelier cells) in the rat ammon's horn. , 1998, 6, 239-246.		45
231	Feed-forward and feed-back activation of the dentate gyrus in vivo during dentate spikes and sharp wave bursts. , 1998, 7, 437-450.		128
232	Theta oscillations in somata and dendrites of hippocampal pyramidal cells in vivo: Activity-dependent phase-precession of action potentials. , 1998, 8, 244-261.		454
233	Gamma frequency oscillation in the hippocampus of the rat: intracellular analysis in vivo. <i>European Journal of Neuroscience</i> , 1998, 10, 718-728.	1.2	277
234	Operational Dynamics in the Hippocampal-entorhinal Axis. <i>Neuroscience and Biobehavioral Reviews</i> , 1998, 22, 303-310.	2.9	74

#	ARTICLE	IF	CITATIONS
235	Reliability and State Dependence of Pyramidal Cell-Interneuron Synapses in the Hippocampus. <i>Neuron</i> , 1998, 21, 179-189.	3.8	552
236	Somadendritic Backpropagation of Action Potentials in Cortical Pyramidal Cells of the Awake Rat. <i>Journal of Neurophysiology</i> , 1998, 79, 1587-1591.	0.9	133
237	GABAergic Cells Are the Major Postsynaptic Targets of Mossy Fibers in the Rat Hippocampus. <i>Journal of Neuroscience</i> , 1998, 18, 3386-3403.	1.7	650
238	Dendritic Spikes Are Enhanced by Cooperative Network Activity in the Intact Hippocampus. <i>Journal of Neuroscience</i> , 1998, 18, 3919-3928.	1.7	225
239	State-Dependent Changes in Network Activity of the Hippocampal Formation. , 1998, , .		0
240	Cellular-Synaptic Generation of Sleep Spindles, Spike-and-Wave Discharges, and Evoked Thalamocortical Responses in the Neocortex of the Rat. <i>Journal of Neuroscience</i> , 1997, 17, 6783-6797.	1.7	324
241	Interneurons in the Hippocampal Dentate Gyrus: an In Vivo intracellular Study. <i>European Journal of Neuroscience</i> , 1997, 9, 573-588.	1.2	162
242	High-Frequency Oscillations in the Output Networks of the Hippocampal-Entorhinal Axis of the Freely Behaving Rat. <i>Journal of Neuroscience</i> , 1996, 16, 3056-3066.	1.7	520
243	Gamma Oscillation by Synaptic Inhibition in a Hippocampal Interneuronal Network Model. <i>Journal of Neuroscience</i> , 1996, 16, 6402-6413.	1.7	1,440
244	Intracellular correlates of hippocampal theta rhythm in identified pyramidal cells, granule cells, and basket cells. <i>Hippocampus</i> , 1995, 5, 78-90.	0.9	362
245	Possible physiological role of the perforant path-CA1 projection. <i>Hippocampus</i> , 1995, 5, 141-146.	0.9	40
246	Epileptic seizures caused by inactivation of a novel gene, jerky, related to centromere binding protein-B in transgenic mice. <i>Nature Genetics</i> , 1995, 11, 71-75.	9.4	86
247	Temporal structure in spatially organized neuronal ensembles: a role for interneuronal networks. <i>Current Opinion in Neurobiology</i> , 1995, 5, 504-510.	2.0	780
248	Cerebellar neuronal activity correlates with spike and wave EEG patterns in the rat. <i>Epilepsy Research</i> , 1993, 16, 1-9.	0.8	65
249	Network Properties of the Thalamic Clock: Role of Oscillatory Behavior in Mood Disorders. , 1992, , 235-250.		2
250	Hippocampal grafts into the intact brain induce epileptic patterns. <i>Brain Research</i> , 1991, 554, 30-37.	1.1	34
251	Emergence and propagation of interictal spikes in the subcortically denervated hippocampus. <i>Hippocampus</i> , 1991, 1, 163-180.	0.9	62
252	Chapter 19 Chapter Spatial organization of physiological activity in the hippocampal region: relevance to memory formation. <i>Progress in Brain Research</i> , 1990, 83, 257-268.	0.9	54

#	ARTICLE	IF	CITATIONS
253	The grafted hippocampus: An epileptic focus. <i>Experimental Neurology</i> , 1989, 105, 10-22.	2.0	67
254	Long-term potentiation induced by physiologically relevant stimulus patterns. <i>Brain Research</i> , 1987, 435, 331-333.	1.1	123
255	Hippocampal sharp waves: Their origin and significance. <i>Brain Research</i> , 1986, 398, 242-252.	1.1	785
256	What does the "LTP Model of Memory" Model?. <i>Advances in Behavioral Biology</i> , 1985, , 157-166.	0.2	5
257	Long-term changes of hippocampal sharp-waves following high frequency afferent activation. <i>Brain Research</i> , 1984, 300, 179-182.	1.1	47
258	Cellular bases of hippocampal EEG in the behaving rat. <i>Brain Research Reviews</i> , 1983, 6, 139-171.	9.1	1,189
259	Spatial mapping, working memory, and the fimbria's fornix system.. <i>Journal of Comparative and Physiological Psychology</i> , 1982, 96, 26-34.	1.8	21
260	Commissural projection to the dentate gyrus of the rat: evidence for feed-forward inhibition. <i>Brain Research</i> , 1981, 230, 346-350.	1.1	167
261	Differential contribution of fimbria and fornix fibers to behavior. <i>Behavioral and Neural Biology</i> , 1980, 28, 79-88.	2.3	15
262	CellExplorer, a Framework for Visualizing and Characterizing Single Neurons. <i>SSRN Electronic Journal</i> , 0, , .	0.4	2
263	Propagation of Hippocampal Ripples to the Neocortex by Way of a Subiculum-Retrosplenial Pathway. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1