

Gyorgy Buzsaki

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.

263
papers

62,041
citations

122
h-index

249
g-index

298
ext. papers

75,368
ext. citations

12.9
avg, IF

8.48
L-index

#	Paper	IF	Citations
263	Probing subthreshold dynamics of hippocampal neurons by pulsed optogenetics.. <i>Science</i> , 2022 , 375, 570-574	33.3	2
262	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 , PP,	5.1	2
261	Inhibition allocates spikes during hippocampal ripples.. <i>Nature Communications</i> , 2022 , 13, 1280	17.4	0
260	HectoSTAR Π ED Optoelectrodes for Large-Scale, High-Precision In Vivo Opto-Electrophysiology.. <i>Advanced Science</i> , 2022 , e2105414	13.6	0
259	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	11.5	1
258	Recruitment and inhibitory action of hippocampal axo-axonic cells during behavior. <i>Neuron</i> , 2021 , 109, 3838-3850.e8	13.9	3
257	Preexisting hippocampal network dynamics constrain optogenetically induced place fields. <i>Neuron</i> , 2021 , 109, 1040-1054.e7	13.9	19
256	Spatiotemporal dynamics between interictal epileptiform discharges and ripples during associative memory processing. <i>Brain</i> , 2021 , 144, 1590-1602	11.2	3
255	Cholinergic suppression of hippocampal sharp-wave ripples impairs working memory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	8
254	Gamma rhythm communication between entorhinal cortex and dentate gyrus neuronal assemblies. <i>Science</i> , 2021 , 372,	33.3	32
253	Metal microdrive and head cap system for silicon probe recovery in freely moving rodent. <i>ELife</i> , 2021 , 10,	8.9	5
252	A transient postnatal quiescent period precedes emergence of mature cortical dynamics. <i>ELife</i> , 2021 , 10,	8.9	5
251	Subcircuits of Deep and Superficial CA1 Place Cells Support Efficient Spatial Coding across Heterogeneous Environments. <i>Neuron</i> , 2021 , 109, 363-376.e6	13.9	15
250	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,	11.5	7
249	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> , 2021 , PP,	5	6
248	3D-printed Recoverable Microdrive and Base Plate System for Rodent Electrophysiology. <i>Bio-protocol</i> , 2021 , 11, e4137	0.9	3
247	Sleep down state-active ID2/Nkx2.1 interneurons in the neocortex. <i>Nature Neuroscience</i> , 2021 , 24, 401-414.5	11.5	10

246	A metabolic function of the hippocampal sharp wave-ripple. <i>Nature</i> , 2021 , 597, 82-86	50.4	8
245	Neurophysiology of Remembering. <i>Annual Review of Psychology</i> , 2021 ,	26.1	1
244	CellExplorer: A framework for visualizing and characterizing single neurons. <i>Neuron</i> , 2021 , 109, 3594-3608.e2	13.9	3
243	Extrinsic control and intrinsic computation in the hippocampal CA1 circuit. <i>Neuron</i> , 2021 ,	13.9	2
242	Cooling of Medial Septum Reveals Theta Phase Lag Coordination of Hippocampal Cell Assemblies. <i>Neuron</i> , 2020 , 107, 731-744.e3	13.9	24
241	Artifact-free and high-temporal-resolution in vivo opto-electrophysiology with microLED optoelectrodes. <i>Nature Communications</i> , 2020 , 11, 2063	17.4	26
240	Variable specificity of memory trace reactivation during hippocampal sharp wave ripples. <i>Current Opinion in Behavioral Sciences</i> , 2020 , 32, 126-135	4	11
239	Propagation of hippocampal ripples to the neocortex by way of a subiculum-retrosplenial pathway. <i>Nature Communications</i> , 2020 , 11, 1947	17.4	24
238	The Brain-Cognitive Behavior Problem: A Retrospective. <i>ENeuro</i> , 2020 , 7,	3.9	26
237	Routing of Hippocampal Ripples to Subcortical Structures via the Lateral Septum. <i>Neuron</i> , 2020 , 105, 138-149.e5	13.9	17
236	NREM sleep in the rodent neocortex and hippocampus reflects excitable dynamics. <i>Nature Communications</i> , 2019 , 10, 2478	17.4	31
235	Long-duration hippocampal sharp wave ripples improve memory. <i>Science</i> , 2019 , 364, 1082-1086	33.3	112
234	Utility of the Idling Brain: Abstraction of New Knowledge. <i>Cell</i> , 2019 , 178, 513-515	56.2	1
233	Closed-Loop Acoustic Stimulation Enhances Sleep Oscillations But Not Memory Performance. <i>ENeuro</i> , 2019 , 6,	3.9	22
232	The Brain from Inside Out 2019 ,		60
231	Position-theta-phase model of hippocampal place cell activity applied to quantification of running speed modulation of firing rate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 ,	11.5	7
230	Layer-Specific Physiological Features and Interlaminar Interactions in the Primary Visual Cortex of the Mouse. <i>Neuron</i> , 2019 , 101, 500-513.e5	13.9	80
229	High-Density Stretchable Electrode Grids for Chronic Neural Recording. <i>Advanced Materials</i> , 2018 , 30, e1706520	24	124

228	Direct effects of transcranial electric stimulation on brain circuits in rats and humans. <i>Nature Communications</i> , 2018 , 9, 483	17.4	323
227	A Shared Vision for Machine Learning in Neuroscience. <i>Journal of Neuroscience</i> , 2018 , 38, 1601-1607	6.6	70
226	Temporal coupling of field potentials and action potentials in the neocortex. <i>European Journal of Neuroscience</i> , 2018 , 48, 2482-2497	3.5	72
225	A High-Resolution Opto-Electrophysiology System With a Miniature Integrated Headstage. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2018 ,	5.1	15
224	Cocaine Place Conditioning Strengthens Location-Specific Hippocampal Coupling to the Nucleus Accumbens. <i>Neuron</i> , 2018 , 98, 926-934.e5	13.9	50
223	Dual color optogenetic control of neural populations using low-noise, multishank optoelectrodes. <i>Microsystems and Nanoengineering</i> , 2018 , 4,	7.7	52
222	Origin of Gamma Frequency Power during Hippocampal Sharp-Wave Ripples. <i>Cell Reports</i> , 2018 , 25, 1693-1700.e4	11.7	34
221	Real-Time Readout of Large-Scale Unsorted Neural Ensemble Place Codes. <i>Cell Reports</i> , 2018 , 25, 2635-2648.e5	11.7	34
220	Immediate neurophysiological effects of transcranial electrical stimulation. <i>Nature Communications</i> , 2018 , 9, 5092	17.4	175
219	Space and Time: The Hippocampus as a Sequence Generator. <i>Trends in Cognitive Sciences</i> , 2018 , 22, 853-869	11.7	125
218	Transformation of a Spatial Map across the Hippocampal-Lateral Septal Circuit. <i>Neuron</i> , 2018 , 98, 1229-1243.e5	13.9	140
217	Physiological Properties and Behavioral Correlates of Hippocampal Granule Cells and Mossy Cells. <i>Neuron</i> , 2017 , 93, 691-704.e5	13.9	139
216	Entorhinal-CA3 Dual-Input Control of Spike Timing in the Hippocampus by Theta-Gamma Coupling. <i>Neuron</i> , 2017 , 93, 1213-1226.e5	13.9	121
215	Sleep regulation of the distribution of cortical firing rates. <i>Current Opinion in Neurobiology</i> , 2017 , 44, 34-42	7.6	38
214	Sharp wave ripples during learning stabilize the hippocampal spatial map. <i>Nature Neuroscience</i> , 2017 , 20, 845-853	25.5	84
213	Viewpoints: how the hippocampus contributes to memory, navigation and cognition. <i>Nature Neuroscience</i> , 2017 , 20, 1434-1447	25.5	182
212	Space and time in the brain. <i>Science</i> , 2017 , 358, 482-485	33.3	81
211	Low frequency transcranial electrical stimulation does not entrain sleep rhythms measured by human intracranial recordings. <i>Nature Communications</i> , 2017 , 8, 1199	17.4	105

210	Pyramidal Cell-Interneuron Circuit Architecture and Dynamics in Hippocampal Networks. <i>Neuron</i> , 2017 , 96, 505-520.e7	13.9	101
209	Learning-enhanced coupling between ripple oscillations in association cortices and hippocampus. <i>Science</i> , 2017 , 358, 369-372	33.3	173
208	Reactivations of emotional memory in the hippocampus-amygdala system during sleep. <i>Nature Neuroscience</i> , 2017 , 20, 1634-1642	25.5	130
207	Transformation of the head-direction signal into a spatial code. <i>Nature Communications</i> , 2017 , 8, 1752	17.4	38
206	A miniature headstage for high resolution closed-loop optogenetics 2017 ,		3
205	Spatial coding and physiological properties of hippocampal neurons in the Cornu Ammonis subregions. <i>Hippocampus</i> , 2016 , 26, 1593-1607	3.5	60
204	Organic electronics for high-resolution electrocorticography of the human brain. <i>Science Advances</i> , 2016 , 2, e1601027	14.3	97
203	Fiberless multicolor neural optoelectrode for in vivo circuit analysis. <i>Scientific Reports</i> , 2016 , 6, 30961	4.9	65
202	Memory Systems and Neural Dynamics 2016 , 2629-2650		
201	Memory Systems and Neural Dynamics 2016 , 1-22		
200	The Functional Anatomy of Time: What and When in the Brain. <i>Trends in Cognitive Sciences</i> , 2016 , 20, 500-511	14	97
199	Diversity in neural firing dynamics supports both rigid and learned hippocampal sequences. <i>Science</i> , 2016 , 351, 1440-3	33.3	166
198	Spike sorting for large, dense electrode arrays. <i>Nature Neuroscience</i> , 2016 , 19, 634-641	25.5	392
197	Recording extracellular neural activity in the behaving monkey using a semichronic and high-density electrode system. <i>Journal of Neurophysiology</i> , 2016 , 116, 563-74	3.2	15
196	Excitation-Transcription Coupling in Parvalbumin-Positive Interneurons Employs a Novel CaM Kinase-Dependent Pathway Distinct from Excitatory Neurons. <i>Neuron</i> , 2016 , 90, 292-307	13.9	56
195	What is memory? The present state of the engram. <i>BMC Biology</i> , 2016 , 14, 40	7.3	197
194	Network Homeostasis and State Dynamics of Neocortical Sleep. <i>Neuron</i> , 2016 , 90, 839-52	13.9	159
193	Interictal epileptiform discharges induce hippocampal-cortical coupling in temporal lobe epilepsy. <i>Nature Medicine</i> , 2016 , 22, 641-8	50.5	127

192	Hippocampal Mechanisms for the Segmentation of Space by Goals and Boundaries. <i>Research and Perspectives in Neurosciences</i> , 2016 , 1-21		6
191	Role of Hippocampal CA2 Region in Triggering Sharp-Wave Ripples. <i>Neuron</i> , 2016 , 91, 1342-1355	13.9	100
190	Cover Image, Volume 26, Issue 10. <i>Hippocampus</i> , 2016 , 26, C1-C1	3.5	
189	Sleep, Memory & Brain Rhythms. <i>Daedalus</i> , 2015 , 144, 67-82	2	57
188	What does gamma coherence tell us about inter-regional neural communication?. <i>Nature Neuroscience</i> , 2015 , 18, 484-9	25.5	191
187	Internally organized mechanisms of the head direction sense. <i>Nature Neuroscience</i> , 2015 , 18, 569-75	25.5	130
186	Local generation of multineuronal spike sequences in the hippocampal CA1 region. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 10521-6	11.5	53
185	Cell type- and activity-dependent extracellular correlates of intracellular spiking. <i>Journal of Neurophysiology</i> , 2015 , 114, 608-23	3.2	43
184	Neuroelectronics and Biooptics: Closed-Loop Technologies in Neurological Disorders. <i>JAMA Neurology</i> , 2015 , 72, 823-9	17.2	65
183	Tools for probing local circuits: high-density silicon probes combined with optogenetics. <i>Neuron</i> , 2015 , 86, 92-105	13.9	225
182	Default Distance Coding Properties in the Hippocampus. <i>Neuron</i> , 2015 , 88, 242-3	13.9	
181	Optogenetics: 10 years after ChR2 in neurons--views from the community. <i>Nature Neuroscience</i> , 2015 , 18, 1202-12	25.5	98
180	Monolithically Integrated μ EDs on Silicon Neural Probes for High-Resolution Optogenetic Studies in Behaving Animals. <i>Neuron</i> , 2015 , 88, 1136-1148	13.9	256
179	Neurodata Without Borders: Creating a Common Data Format for Neurophysiology. <i>Neuron</i> , 2015 , 88, 629-34	13.9	96
178	NeuroGrid: recording action potentials from the surface of the brain. <i>Nature Neuroscience</i> , 2015 , 18, 310-5	25.5	538
177	Tasks for inhibitory interneurons in intact brain circuits. <i>Neuropharmacology</i> , 2015 , 88, 10-23	5.5	144
176	Robert L. Isaacson: Pioneer of limbic system research. <i>Hippocampus</i> , 2015 , 25, 1189-90	3.5	
175	Spike sorting for large, dense electrode arrays 2015 ,		8

174	Neural syntax in mental disorders. <i>Biological Psychiatry</i> , 2015 , 77, 998-1000	7.9	10
173	Hippocampal sharp wave-ripple: A cognitive biomarker for episodic memory and planning. <i>Hippocampus</i> , 2015 , 25, 1073-188	3.5	700
172	Neuroscience. Our skewed sense of space. <i>Science</i> , 2015 , 347, 612-3	33.3	8
171	The log-dynamic brain: how skewed distributions affect network operations. <i>Nature Reviews Neuroscience</i> , 2014 , 15, 264-78	13.5	494
170	Spatially distributed local fields in the hippocampus encode rat position. <i>Science</i> , 2014 , 344, 626-30	33.3	97
169	Comparison of sleep spindles and theta oscillations in the hippocampus. <i>Journal of Neuroscience</i> , 2014 , 34, 662-74	6.6	41
168	In vivo optogenetic identification and manipulation of GABAergic interneuron subtypes. <i>Current Opinion in Neurobiology</i> , 2014 , 26, 88-95	7.6	61
167	Millisecond timescale synchrony among hippocampal neurons. <i>Journal of Neuroscience</i> , 2014 , 34, 14984-84	6.6	47
166	Pyramidal cell-interneuron interactions underlie hippocampal ripple oscillations. <i>Neuron</i> , 2014 , 83, 467-480	18.9	227
165	Large-scale, high-density (up to 512 channels) recording of local circuits in behaving animals. <i>Journal of Neurophysiology</i> , 2014 , 111, 1132-49	3.2	216
164	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, 13535-40	11.5	192
163	Theta phase segregation of input-specific gamma patterns in entorhinal-hippocampal networks. <i>Neuron</i> , 2014 , 84, 470-85	13.9	252
162	Neurosharing: large-scale data sets (spike, LFP) recorded from the hippocampal-entorhinal system in behaving rats. <i>F1000Research</i> , 2014 , 3, 98	3.6	29
161	Emergence of Cognition from Action. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2014 , 79, 41-50	3.9	43
160	Excitation and inhibition compete to control spiking during hippocampal ripples: intracellular study in behaving mice. <i>Journal of Neuroscience</i> , 2014 , 34, 16509-17	6.6	83
159	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	5.8	35
158	Extracellular field signatures of CA1 spiking cell assemblies during sharp wave-ripple complexes. <i>BMC Neuroscience</i> , 2013 , 14,	3.2	78
157	An implantable neural probe with monolithically integrated dielectric waveguide and recording electrodes for optogenetics applications. <i>Journal of Neural Engineering</i> , 2013 , 10, 056012	5	121

156	Inhibition-induced theta resonance in cortical circuits. <i>Neuron</i> , 2013 , 80, 1263-76	13.9	206
155	Scaling brain size, keeping timing: evolutionary preservation of brain rhythms. <i>Neuron</i> , 2013 , 80, 751-64	13.9	458
154	A BOLD statement about the hippocampal-neocortical dialogue. <i>Trends in Cognitive Sciences</i> , 2013 , 17, 57-9	14	2
153	Preconfigured, skewed distribution of firing rates in the hippocampus and entorhinal cortex. <i>Cell Reports</i> , 2013 , 4, 1010-21	10.6	168
152	Memory, navigation and theta rhythm in the hippocampal-entorhinal system. <i>Nature Neuroscience</i> , 2013 , 16, 130-8	25.5	949
151	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, 719-24	11.5	54
150	Local generation and propagation of ripples along the septotemporal axis of the hippocampus. <i>Journal of Neuroscience</i> , 2013 , 33, 17029-41	6.6	103
149	Biophysics of Extracellular Spikes 2013 , 15-36		5
148	Quantifying circular-linear associations: hippocampal phase precession. <i>Journal of Neuroscience Methods</i> , 2012 , 207, 113-24	3	92
147	120 years of hippocampal Schaffer collaterals. <i>Hippocampus</i> , 2012 , 22, 1508-16	3.5	6
146	Activity dynamics and behavioral correlates of CA3 and CA1 hippocampal pyramidal neurons. <i>Hippocampus</i> , 2012 , 22, 1659-80	3.5	129
145	REM sleep reorganizes hippocampal excitability. <i>Neuron</i> , 2012 , 75, 1001-7	13.9	199
144	Large-scale recording of neurons by movable silicon probes in behaving rodents. <i>Journal of Visualized Experiments</i> , 2012 , e3568	1.6	59
143	Control of timing, rate and bursts of hippocampal place cells by dendritic and somatic inhibition. <i>Nature Neuroscience</i> , 2012 , 15, 769-75	25.5	410
142	The spiking component of oscillatory extracellular potentials in the rat hippocampus. <i>Journal of Neuroscience</i> , 2012 , 32, 11798-811	6.6	139
141	High frequency oscillations in the intact brain. <i>Progress in Neurobiology</i> , 2012 , 98, 241-9	10.9	144
140	Traveling theta waves along the entire septotemporal axis of the hippocampus. <i>Neuron</i> , 2012 , 75, 410-7	13.9	159
139	How do neurons sense a spike burst?. <i>Neuron</i> , 2012 , 73, 857-9	13.9	10

138	A toolbox of Cre-dependent optogenetic transgenic mice for light-induced activation and silencing. <i>Nature Neuroscience</i> , 2012 , 15, 793-802	25.5	845
137	The origin of extracellular fields and currents--EEG, ECoG, LFP and spikes. <i>Nature Reviews Neuroscience</i> , 2012 , 13, 407-20	13.5	2191
136	Diode probes for spatiotemporal optical control of multiple neurons in freely moving animals. <i>Journal of Neurophysiology</i> , 2012 , 108, 349-63	3.2	175
135	Closed-loop control of epilepsy by transcranial electrical stimulation. <i>Science</i> , 2012 , 337, 735-7	33.3	302
134	Mechanisms of gamma oscillations. <i>Annual Review of Neuroscience</i> , 2012 , 35, 203-25	17	1517
133	Cross-frequency phase-phase coupling between β and γ oscillations in the hippocampus. <i>Journal of Neuroscience</i> , 2012 , 32, 423-35	6.6	494
132	Brain rhythms and neural syntax: implications for efficient coding of cognitive content and neuropsychiatric disease. <i>Dialogues in Clinical Neuroscience</i> , 2012 , 14, 345-67	5.7	295
131	GABAergic circuits mediate the reinforcement-related signals of striatal cholinergic interneurons. <i>Nature Neuroscience</i> , 2011 , 15, 123-30	25.5	210
130	A 4 Hz oscillation adaptively synchronizes prefrontal, VTA, and hippocampal activities. <i>Neuron</i> , 2011 , 72, 153-65	13.9	328
129	Hippocampal CA1 pyramidal cells form functionally distinct sublayers. <i>Nature Neuroscience</i> , 2011 , 14, 1174-81	25.5	245
128	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	4	35
127	Relationships between hippocampal sharp waves, ripples, and fast gamma oscillation: influence of dentate and entorhinal cortical activity. <i>Journal of Neuroscience</i> , 2011 , 31, 8605-16	6.6	181
126	Cell assembly sequences arising from spike threshold adaptation keep track of time in the hippocampus. <i>Journal of Neuroscience</i> , 2011 , 31, 2828-34	6.6	98
125	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, 2279-91	3.5	184
124	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, 7957-62	11.5	95
123	Intrinsic circuit organization and theta-gamma oscillation dynamics in the entorhinal cortex of the rat. <i>Journal of Neuroscience</i> , 2010 , 30, 11128-42	6.6	358
122	Distinct representations and theta dynamics in dorsal and ventral hippocampus. <i>Journal of Neuroscience</i> , 2010 , 30, 1777-87	6.6	207
121	Transcranial electric stimulation entrains cortical neuronal populations in rats. <i>Journal of Neuroscience</i> , 2010 , 30, 11476-85	6.6	275

120	Neural syntax: cell assemblies, synapsembles, and readers. <i>Neuron</i> , 2010 , 68, 362-85	13.9	748
119	The effect of spatially inhomogeneous extracellular electric fields on neurons. <i>Journal of Neuroscience</i> , 2010 , 30, 1925-36	6.6	139
118	Alteration of theta timescale dynamics of hippocampal place cells by a cannabinoid is associated with memory impairment. <i>Journal of Neuroscience</i> , 2009 , 29, 12597-605	6.6	112
117	Behavior-dependent coordination of multiple theta dipoles in the hippocampus. <i>Journal of Neuroscience</i> , 2009 , 29, 1381-94	6.6	135
116	Selective suppression of hippocampal ripples impairs spatial memory. <i>Nature Neuroscience</i> , 2009 , 12, 1222-3	25.5	822
115	Theta oscillations provide temporal windows for local circuit computation in the entorhinal-hippocampal loop. <i>Neuron</i> , 2009 , 64, 267-80	13.9	450
114	Single-trial phase precession in the hippocampus. <i>Journal of Neuroscience</i> , 2009 , 29, 13232-41	6.6	81
113	Petilla terminology: nomenclature of features of GABAergic interneurons of the cerebral cortex. <i>Nature Reviews Neuroscience</i> , 2008 , 9, 557-68	13.5	1092
112	Behavior-dependent short-term assembly dynamics in the medial prefrontal cortex. <i>Nature Neuroscience</i> , 2008 , 11, 823-33	25.5	445
111	Advanced neurotechnologies for chronic neural interfaces: new horizons and clinical opportunities. <i>Journal of Neuroscience</i> , 2008 , 28, 11830-8	6.6	220
110	Entrainment of neocortical neurons and gamma oscillations by the hippocampal theta rhythm. <i>Neuron</i> , 2008 , 60, 683-97	13.9	912
109	A neural coding scheme formed by the combined function of gamma and theta oscillations. <i>Schizophrenia Bulletin</i> , 2008 , 34, 974-80	1.3	302
108	Theta and gamma coordination of hippocampal networks during waking and rapid eye movement sleep. <i>Journal of Neuroscience</i> , 2008 , 28, 6731-41	6.6	245
107	Theta-mediated dynamics of spatial information in hippocampus. <i>Journal of Neuroscience</i> , 2008 , 28, 5959-64	6.6	40
106	Hippocampal network dynamics constrain the time lag between pyramidal cells across modified environments. <i>Journal of Neuroscience</i> , 2008 , 28, 13448-56	6.6	97
105	Internally generated cell assembly sequences in the rat hippocampus. <i>Science</i> , 2008 , 321, 1322-7	33.3	773
104	The structure of consciousness. <i>Nature</i> , 2007 , 446, 267	50.4	45
103	Forward and reverse hippocampal place-cell sequences during ripples. <i>Nature Neuroscience</i> , 2007 , 10, 1241-2	25.5	677

102	How can drug discovery for psychiatric disorders be improved?. <i>Nature Reviews Drug Discovery</i> , 2007 , 6, 189-201	64.1	186
101	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	4	93
100	Neuronal diversity in GABAergic long-range projections from the hippocampus. <i>Journal of Neuroscience</i> , 2007 , 27, 8790-804	6.6	245
99	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, 8149-54	11.5	179
98	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, 14495-500	11.5	313
97	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, 347-52	11.5	385
96	Inhibition and brain work. <i>Neuron</i> , 2007 , 56, 771-83	13.9	306
95	Hilar mossy cells: functional identification and activity in vivo. <i>Progress in Brain Research</i> , 2007 , 163, 199-216	45	
94	On the origin of the extracellular action potential waveform: A modeling study. <i>Journal of Neurophysiology</i> , 2006 , 95, 3113-28	3.2	394
93	Temporal encoding of place sequences by hippocampal cell assemblies. <i>Neuron</i> , 2006 , 50, 145-57	13.9	666
92	Integration and segregation of activity in entorhinal-hippocampal subregions by neocortical slow oscillations. <i>Neuron</i> , 2006 , 52, 871-82	13.9	363
91	Populations of hippocampal inhibitory neurons express different levels of cytochrome c. <i>European Journal of Neuroscience</i> , 2006 , 23, 2581-94	3.5	94
90	Hippocampal CA3 pyramidal cells selectively innervate aspiny interneurons. <i>European Journal of Neuroscience</i> , 2006 , 24, 1286-98	3.5	38
89	Cannabinoids reveal importance of spike timing coordination in hippocampal function. <i>Nature Neuroscience</i> , 2006 , 9, 1526-33	25.5	255
88	Klusters, NeuroScope, NDManager: a free software suite for neurophysiological data processing and visualization. <i>Journal of Neuroscience Methods</i> , 2006 , 155, 207-16	3	350
87	Functional Connectivity of the Brain: Reconstruction from Static and Dynamic Data 2006 , 631-681		
86	Rhythms of the Brain 2006 ,		2030
85	Neuroscience. Similar is different in hippocampal networks. <i>Science</i> , 2005 , 309, 568-9	33.3	7

84	Interaction between neocortical and hippocampal networks via slow oscillations. <i>Thalamus & Related Systems</i> , 2005 , 3, 245-259		175
83	Spike phase precession persists after transient intrahippocampal perturbation. <i>Nature Neuroscience</i> , 2005 , 8, 67-71	25.5	74
82	Band-tunable and multiplexed integrated circuits for simultaneous recording and stimulation with microelectrode arrays. <i>IEEE Transactions on Biomedical Engineering</i> , 2005 , 52, 1303-11	5	130
81	Theta rhythm of navigation: link between path integration and landmark navigation, episodic and semantic memory. <i>Hippocampus</i> , 2005 , 15, 827-40	3.5	624
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4	CellExplorer: a graphical user interface and a standardized pipeline for visualizing and characterizing single neurons		4
3	Temporal coupling of field potentials and action potentials in the neocortex		1
2	Excitable dynamics of NREM sleep: a unifying model for neocortex and hippocampus		1
1	Preexisting hippocampal network dynamics constrain optogenetically induced place fields		2