

A critical window for cooperation and competition among synapses

Nature

395, 37-44

DOI: [10.1038/25665](https://doi.org/10.1038/25665)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Mechanodegradation of polymers. The method of molecular dynamics. Russian Chemical Reviews, 1989, 58, 381-393.	2.5	17
2	Topographic maps: Developing roles of synaptic plasticity. Current Biology, 1998, 8, R836-R839.	1.8	34
3	Synaptic Modifications in Cultured Hippocampal Neurons: Dependence on Spike Timing, Synaptic Strength, and Postsynaptic Cell Type. Journal of Neuroscience, 1998, 18, 10464-10472.	1.7	3,916
4	Light-Induced Calcium Influx Into Retinal Axons Is Regulated by Presynaptic Nicotinic Acetylcholine Receptor Activity In Vivo. Journal of Neurophysiology, 1999, 81, 895-907.	0.9	54
5	A Neurotrophic Model of the Development of the Retinogeniculocortical Pathway Induced by Spontaneous Retinal Waves. Journal of Neuroscience, 1999, 19, 7951-7970.	1.7	40
6	Response Attenuation During Coincident Afferent Excitatory Inputs. Journal of Neurophysiology, 1999, 81, 2945-2955.	0.9	8
7	BDNF Modulates, But Does Not Mediate, Activity-Dependent Branching and Remodeling of Optic Axon Arbors <i>In Vivo</i> . Journal of Neuroscience, 1999, 19, 9996-10003.	1.7	132
8	Dendritic Dynamics <i>In Vivo</i> Change during Neuronal Maturation. Journal of Neuroscience, 1999, 19, 4472-4483.	1.7	167
9	Nitric Oxide in the Retinotectal System: a Signal But Not a Retrograde Messenger During Map Refinement and Segregation. Journal of Neuroscience, 1999, 19, 7066-7076.	1.7	47
10	An LTP/LTD perspective on learning rules. , 0, , .		0
11	Is a biological temporal learning rule compatible with learning Synfire chains?. , 1999, , .		1
12	Hebbian learning and spiking neurons. Physical Review E, 1999, 59, 4498-4514.	0.8	526
13	A new approach to estimate the number, density and variability of receptors at central synapses. European Journal of Neuroscience, 1999, 11, 745-752.	1.2	31
14	Highly reproducible spatiotemporal patterns of mammalian embryonic movements at the developmental stage of the earliest spontaneous motility. European Journal of Neuroscience, 1999, 11, 2697-2710.	1.2	29
15	Co-regulation of synaptic efficacy at stable polyneuronally innervated neuromuscular junctions in reinnervated rat muscle. Journal of Physiology, 1999, 521, 365-374.	1.3	33
16	Distributed synaptic modification in neural networks induced by patterned stimulation. Nature, 1999, 401, 792-796.	13.7	227
17	Benzodiazepine actions mediated by specific $\hat{\gamma}$ -aminobutyric acidA receptor subtypes. Nature, 1999, 401, 796-800.	13.7	1,136
18	Ancient Gene Duplication and Differential Gene Flow in Plastid Lineages: The GroEL/Cpn60 Example. Journal of Molecular Evolution, 1999, 48, 112-117.	0.8	20

#	ARTICLE	IF	CITATIONS
19	Computational consequences of temporally asymmetric learning rules: I. Differential hebbian learning. , 1999, 7, 235-246.		109
20	Time as coding space?. Current Opinion in Neurobiology, 1999, 9, 189-194.	2.0	132
21	Calcium- and activity-dependent synaptic plasticity. Current Opinion in Neurobiology, 1999, 9, 305-313.	2.0	561
22	Synaptic plasticity at thalamocortical synapses in developing rat somatosensory cortex: LTP, LTD, and silent synapses. , 1999, 41, 92-101.		185
23	Activity-Induced Potentiation of Developing Neuromuscular Synapses. Science, 1999, 285, 1725-1728.	6.0	33
24	The What and Why of Binding. Neuron, 1999, 24, 95-104.	3.8	432
25	The Return of the Spike. Neuron, 1999, 22, 661-666.	3.8	180
26	The Binding Problem. Neuron, 1999, 24, 7-9.	3.8	276
27	The Psychophysical Evidence for a Binding Problem in Human Vision. Neuron, 1999, 24, 11-17.	3.8	178
28	The Role of Neural Mechanisms of Attention in Solving the Binding Problem. Neuron, 1999, 24, 19-29.	3.8	325
29	The Temporal Correlation Hypothesis of Visual Feature Integration. Neuron, 1999, 24, 31-47.	3.8	504
30	Neuronal Synchrony: A Versatile Code for the Definition of Relations?. Neuron, 1999, 24, 49-65.	3.8	2,256
31	Synchrony Unbound. Neuron, 1999, 24, 67-77.	3.8	539
32	Specialized Representations in Visual Cortex. Neuron, 1999, 24, 79-85.	3.8	79
33	Are Cortical Models Really Bound by the "Binding Problem"? Neuron, 1999, 24, 87-93.	3.8	160
34	Solutions to the Binding Problem. Neuron, 1999, 24, 105-125.	3.8	258
35	The Book of Hebb. Neuron, 1999, 24, 773-776.	3.8	98
36	Electrophysiological evidence for transient topographic organization of retinotectal projections during optic nerve regeneration in the lizard, <i>Ctenophorus ornatus</i> . Visual Neuroscience, 1999, 16, 681-693.	0.5	24

#	ARTICLE	IF	CITATIONS
37	Stable Hebbian Learning from Spike Timing-Dependent Plasticity. Journal of Neuroscience, 2000, 20, 8812-8821.	1.7	657
38	A readily releasable pool of single inhibitory boutons in culture. NeuroReport, 2000, 11, 3709-3713.	0.6	14
39	The multiple decisions made by growth cones of RGCs as they navigate from the retina to the tectum in <i>Xenopus</i> embryos. Journal of Neurobiology, 2000, 44, 246-259.	3.7	49
40	From form to function: calcium compartmentalization in dendritic spines. Nature Neuroscience, 2000, 3, 653-659.	7.1	351
41	Visual input induces long-term potentiation of developing retinotectal synapses. Nature Neuroscience, 2000, 3, 708-715.	7.1	116
42	Competitive Hebbian learning through spike-timing-dependent synaptic plasticity. Nature Neuroscience, 2000, 3, 919-926.	7.1	2,193
43	Postsynaptic CPG15 promotes synaptic maturation and presynaptic axon arbor elaboration in vivo. Nature Neuroscience, 2000, 3, 1004-1011.	7.1	152
44	Enhancement of presynaptic neuronal excitability by correlated presynaptic and postsynaptic spiking. Nature Neuroscience, 2000, 3, 1018-1026.	7.1	119
45	Synaptic plasticity: taming the beast. Nature Neuroscience, 2000, 3, 1178-1183.	7.1	1,822
48	Calcium stores regulate the polarity and input specificity of synaptic modification. Nature, 2000, 408, 584-588.	13.7	575
49	Connectivity and complexity: the relationship between neuroanatomy and brain dynamics. Neural Networks, 2000, 13, 909-922.	3.3	453
50	Distributed synchrony in an attractor of spiking neurons. Neurocomputing, 2000, 32-33, 409-414.	3.5	5
51	Temporally asymmetric Hebbian learning and neuronal response variability. Neurocomputing, 2000, 32-33, 523-528.	3.5	4
52	Natural patterns of activity and long-term synaptic plasticity. Current Opinion in Neurobiology, 2000, 10, 172-180.	2.0	274
53	Nitric oxide, impulse activity, and neurotrophins in visual system development ¹¹ Published on the World Wide Web on 16 August 2000.. Brain Research, 2000, 886, 15-32.	1.1	42
54	Why do we sleep? ¹¹ Published on the World Wide Web on 7 November 2000.. Brain Research, 2000, 886, 208-223.	1.1	466
55	Brain-derived neurotrophic factor requirement for activity-dependent maturation of glutamatergic synapse in developing mouse somatosensory cortex. Brain Research, 2000, 857, 141-150.	1.1	44
56	Stimulus pattern related plasticity of synapses between cones and horizontal cells in carp retina. Brain Research, 2000, 857, 321-326.	1.1	11

#	ARTICLE	IF	CITATIONS
57	Computational consequences of temporally asymmetric learning rules: II. Sensory image cancellation. , 2000, 9, 67-83.		104
58	Long-Lasting Inhibitory Synaptic Depression is Age- and Calcium-Dependent. Journal of Neuroscience, 2000, 20, 5820-5826.	1.7	74
59	Nicotinic EPSCs in Intact Rat Ganglia Feature Depression Except If Evoked During Intermittent Postsynaptic Depolarization. Journal of Neurophysiology, 2000, 83, 3254-3263.	0.9	2
60	Selective Presynaptic Propagation of Long-Term Potentiation in Defined Neural Networks. Journal of Neuroscience, 2000, 20, 3233-3243.	1.7	74
61	Dynamics of temporal learning rules. Physical Review E, 2000, 62, 4077-4082.	0.8	18
62	Spike-Driven Synaptic Plasticity: Theory, Simulation, VLSI Implementation. Neural Computation, 2000, 12, 2227-2258.	1.3	184
63	Sensory deprivation without competition yields modest alterations of short-term synaptic dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 12864-12868.	3.3	31
64	Activity-dependent editing of neuromuscular synaptic connections. Brain Research Bulletin, 2000, 53, 513-522.	1.4	41
65	Timing Is Everything. Neuron, 2000, 27, 1-3.	3.8	15
66	Timing-Based LTP and LTD at Vertical Inputs to Layer II/III Pyramidal Cells in Rat Barrel Cortex. Neuron, 2000, 27, 45-56.	3.8	583
67	Reversible Associative Depression and Nonassociative Potentiation at a Parallel Fiber Synapse. Neuron, 2000, 27, 611-622.	3.8	126
68	Afferent Growth Cone Interactions Control Synaptic Specificity in the Drosophila Visual System. Neuron, 2000, 28, 427-436.	3.8	96
69	Experience-Dependent Asymmetric Shape of Hippocampal Receptive Fields. Neuron, 2000, 25, 707-715.	3.8	426
70	Topographic Mapping from the Retina to the Midbrain Is Controlled by Relative but Not Absolute Levels of EphA Receptor Signaling. Cell, 2000, 102, 77-88.	13.5	338
71	Neural Representation and the Cortical Code. Annual Review of Neuroscience, 2000, 23, 613-647.	5.0	371
72	Intrinsic Stabilization of Output Rates by Spike-Based Hebbian Learning. Neural Computation, 2001, 13, 2709-2741.	1.3	147
73	Synaptic Modification by Correlated Activity: Hebb's Postulate Revisited. Annual Review of Neuroscience, 2001, 24, 139-166.	5.0	1,322
74	Development of the visual system of the chick. Brain Research Reviews, 2001, 35, 205-245.	9.1	90

#	ARTICLE	IF	CITATIONS
75	Dendrite development and target innervation of displaced retinal ganglion cells of the chick (Gallus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.7	11
76	Rapid Development and Plasticity of Layer 2/3 Maps in Rat Barrel Cortex In Vivo. <i>Neuron</i> , 2001, 31, 305-315.	3.8	241
77	Loss of Correlated Motor Neuron Activity during Synaptic Competition at Developing Neuromuscular Synapses. <i>Neuron</i> , 2001, 31, 395-408.	3.8	98
78	Emergence of Input Specificity of LTP during Development of Retinotectal Connections In Vivo. <i>Neuron</i> , 2001, 31, 569-580.	3.8	70
79	Developmentally Restricted Synaptic Plasticity in a Songbird Nucleus Required for Song Learning. <i>Neuron</i> , 2001, 31, 809-818.	3.8	73
80	Heterosynaptic LTP in Early Development. <i>Neuron</i> , 2001, 31, 510-512.	3.8	6
81	Cortical Development and Remapping through Spike Timing-Dependent Plasticity. <i>Neuron</i> , 2001, 32, 339-350.	3.8	433
82	Stimulus Timing-Dependent Plasticity in Cortical Processing of Orientation. <i>Neuron</i> , 2001, 32, 315-323.	3.8	210
83	Pairing-Induced Changes of Orientation Maps in Cat Visual Cortex. <i>Neuron</i> , 2001, 32, 325-337.	3.8	129
84	Rate, Timing, and Cooperativity Jointly Determine Cortical Synaptic Plasticity. <i>Neuron</i> , 2001, 32, 1149-1164.	3.8	1,022
85	NMDA Antagonists in the Superior Colliculus Prevent Developmental Plasticity But Not Visual Transmission or Map Compression. <i>Journal of Neurophysiology</i> , 2001, 86, 1179-1194.	0.9	55
86	The Information Content of Spontaneous Retinal Waves. <i>Journal of Neuroscience</i> , 2001, 21, 961-973.	1.7	58
87	Developmental Depression of Glutamate Neurotransmission by Chronic Low-Level Activation of NMDA Receptors. <i>Journal of Neuroscience</i> , 2001, 21, 6233-6244.	1.7	36
88	Chapter 18 Theory of synaptic plasticity. <i>Handbook of Biological Physics</i> , 2001, 4, 771-823.	0.8	17
89	Noise-tolerant stimulus discrimination by synchronization with depressing synapses. <i>Biological Cybernetics</i> , 2001, 85, 107-116.	0.6	14
90	Combined Hebbian development of geniculocortical and lateral connectivity in a model of primary visual cortex. <i>Biological Cybernetics</i> , 2001, 84, 41-55.	0.6	28
91	The need for integrating neuronal morphology databases and computational environments in exploring neuronal structure and function. <i>Anatomy and Embryology</i> , 2001, 204, 255-265.	1.5	45
92	Self-organization model on receptive field of neuron with asymmetric time window of synaptic modification. <i>Science Bulletin</i> , 2001, 46, 1033-1037.	1.7	1

#	ARTICLE	IF	CITATIONS
93	Distributed synchrony in a cell assembly of spiking neurons. <i>Neural Networks</i> , 2001, 14, 815-824.	3.3	92
94	Coding properties of spiking neurons: reverse and cross-correlations. <i>Neural Networks</i> , 2001, 14, 599-610.	3.3	27
95	Temporal receptive fields, spikes, and Hebbian delay selection. <i>Neural Networks</i> , 2001, 14, 805-813.	3.3	7
96	Slow IPSC kinetics, low levels of $\hat{I}\pm 1$ subunit expression and paired-pulse depression are distinct properties of neonatal inhibitory GABAergic synaptic connections in the mouse superior colliculus. <i>European Journal of Neuroscience</i> , 2001, 13, 2088-2098.	1.2	43
97	Electrical activity and development of neural circuits. <i>Nature Neuroscience</i> , 2001, 4, 1207-1214.	7.1	458
98	Neurotrophins as synaptic modulators. <i>Nature Reviews Neuroscience</i> , 2001, 2, 24-32.	4.9	1,594
99	Time-dependent LTD as a stability factor. <i>Neurocomputing</i> , 2001, 38-40, 775-780.	3.5	0
100	A biologically plausible model for the development of selective microcircuits in striate cortex. <i>Neurocomputing</i> , 2001, 38-40, 851-857.	3.5	0
101	Correlation based learning from spike timing dependent plasticity. <i>Neurocomputing</i> , 2001, 38-40, 409-415.	3.5	24
102	Temporal coding in an olfactory oscillatory model. <i>Neurocomputing</i> , 2001, 38-40, 831-836.	3.5	8
103	An interaural time difference map resulting from axonal selection through non-specific learning. <i>Neurocomputing</i> , 2001, 38-40, 1401-1407.	3.5	1
104	Spike timing dependent plasticity and mutual information in spiking neurons. <i>Neurocomputing</i> , 2001, 38-40, 147-152.	3.5	2
105	Steady states in an iterative model for multiplicative spike-timing-dependent plasticity. <i>Network: Computation in Neural Systems</i> , 2001, 12, 131-140.	2.2	12
106	Retrograde signaling at central synapses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 11009-11015.	3.3	118
107	Effective Neuronal Learning with Ineffective Hebbian Learning Rules. <i>Neural Computation</i> , 2001, 13, 817-840.	1.3	20
108	Spike-Timing-Dependent Hebbian Plasticity as Temporal Difference Learning. <i>Neural Computation</i> , 2001, 13, 2221-2237.	1.3	173
109	An Algorithm for Modifying Neurotransmitter Release Probability Based on Pre- and Postsynaptic Spike Timing. <i>Neural Computation</i> , 2001, 13, 35-67.	1.3	180
110	Chapter 4 Distributed processing in cultured neuronal networks. <i>Progress in Brain Research</i> , 2001, 130, 49-62.	0.9	104

#	ARTICLE	IF	CITATIONS
111	Formation of temporal-feature maps by axonal propagation of synaptic learning. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 4166-4171.	3.3	59
112	Temporal Map Formation in the Barn Owl's Brain. Physical Review Letters, 2001, 87, 248101.	2.9	18
113	Competition in the development of nerve connections: a review of models. Network: Computation in Neural Systems, 2001, 12, 1-47.	2.2	68
114	Spike-timing-dependent learning rule to encode spatiotemporal patterns in a network of spiking neurons. Physical Review E, 2001, 65, 011903.	0.8	17
115	How spiking neurons give rise to a temporal-feature map: From synaptic plasticity to axonal selection. Physical Review E, 2002, 65, 051915.	0.8	22
116	Linear stability analysis of retrieval state in associative memory neural networks of spiking neurons. Physical Review E, 2002, 66, 061913.	0.8	5
117	Disruption of primary auditory cortex by synchronous auditory inputs during a critical period. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2309-2314.	3.3	251
118	Retinal Waves: Implications for Synaptic Learning Rules during Development. Neuroscientist, 2002, 8, 243-253.	2.6	28
120	Mapping from the spike domain to the rate-based domain. , 0, , .		0
121	Training the integrate-and-fire model with the informax principle: I. Journal of Physics A, 2002, 35, 2379-2394.	1.6	11
122	Self-Regulation Mechanism of Temporally Asymmetric Hebbian Plasticity. Neural Computation, 2002, 14, 2883-2902.	1.3	11
123	Rate and timing in cortical synaptic plasticity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 1851-1857.	1.8	28
124	Temporal Specificity in the Cortical Plasticity of Visual Space Representation. Science, 2002, 296, 1999-2003.	6.0	134
125	Procedure neural networks with supervised learning. , 0, , .		8
126	Activity-Dependent Development of Axonal and Dendritic Delays, or, Why Synaptic Transmission Should Be Unreliable. Neural Computation, 2002, 14, 583-619.	1.3	44
127	Synchrony arising from a balanced synaptic plasticity in a network of heterogeneous neural oscillators. Physical Review E, 2002, 65, 031902.	0.8	56
128	Plasticity and learning in a network of coupled phase oscillators. Physical Review E, 2002, 65, 041906.	0.8	124
129	Temporal asymmetry in spike timing-dependent synaptic plasticity. Physiology and Behavior, 2002, 77, 551-555.	1.0	47

#	ARTICLE	IF	CITATIONS
130	Visually Driven Modulation of Glutamatergic Synaptic Transmission Is Mediated by the Regulation of Intracellular Polyamines. <i>Neuron</i> , 2002, 34, 623-634.	3.8	87
131	A problem with Hebb and local spikes. <i>Trends in Neurosciences</i> , 2002, 25, 433-435.	4.2	62
132	Spike-timing-dependent synaptic plasticity – the long road towards understanding neuronal mechanisms of learning and memory. <i>Trends in Neurosciences</i> , 2002, 25, 599-600.	4.2	36
133	Response Synchronization, Gamma Oscillations, and Perceptual Binding in Cat Primary Visual Cortex. , 2002, , 521-559.		1
135	A Model of Spike-Timing Dependent Plasticity: One or Two Coincidence Detectors?. <i>Journal of Neurophysiology</i> , 2002, 88, 507-513.	0.9	143
136	Cortical Plasticity: Time For A Change. <i>Current Biology</i> , 2002, 12, R168-R170.	1.8	24
137	Training neuron models with the Infromax principle. <i>Neurocomputing</i> , 2002, 44-46, 97-101.	3.5	0
138	Spike timing, calcium signals and synaptic plasticity. <i>Current Opinion in Neurobiology</i> , 2002, 12, 305-314.	2.0	199
139	Synaptic modification in neural circuits: A timely action. <i>BioEssays</i> , 2002, 24, 212-222.	1.2	22
140	Complexity of calcium signaling in synaptic spines. <i>BioEssays</i> , 2002, 24, 1130-1144.	1.2	94
141	Hebb in perspective. <i>Biological Cybernetics</i> , 2002, 87, 317-318.	0.6	4
142	Spatiotemporal specificity of synaptic plasticity: cellular rules and mechanisms. <i>Biological Cybernetics</i> , 2002, 87, 319-332.	0.6	69
143	Mechanisms and significance of spike-timing dependent plasticity. <i>Biological Cybernetics</i> , 2002, 87, 373-382.	0.6	58
144	Cortical network reorganization guided by sensory input features. <i>Biological Cybernetics</i> , 2002, 87, 333-343.	0.6	55
145	Mathematical formulations of Hebbian learning. <i>Biological Cybernetics</i> , 2002, 87, 404-415.	0.6	289
146	Hebbian spike-driven synaptic plasticity for learning patterns of mean firing rates. <i>Biological Cybernetics</i> , 2002, 87, 459-470.	0.6	113
147	Spike-timing-dependent plasticity: common themes and divergent vistas. <i>Biological Cybernetics</i> , 2002, 87, 446-458.	0.6	89
148	Spike timing dependent synaptic plasticity in biological systems. <i>Biological Cybernetics</i> , 2002, 87, 392-403.	0.6	131

#	ARTICLE	IF	CITATIONS
149	Properties of LTD and LTP of retinocollicular synaptic transmission in the developing rat superior colliculus. <i>European Journal of Neuroscience</i> , 2002, 15, 1421-1432.	1.2	38
150	Physiological effects of sustained blockade of excitatory synaptic transmission on spontaneously active developing neuronal networks—an inquiry into the reciprocal linkage between intrinsic biorhythms and neuroplasticity in early ontogeny. <i>Neuroscience and Biobehavioral Reviews</i> , 2002, 26, 127-185.	2.9	123
151	Moving visual stimuli rapidly induce direction sensitivity of developing tectal neurons. <i>Nature</i> , 2002, 419, 470-475.	13.7	135
152	Spike-timing-dependent synaptic modification induced by natural spike trains. <i>Nature</i> , 2002, 416, 433-438.	13.7	702
153	Spike-based synaptic plasticity and the emergence of direction selective simple cells: simulation results. <i>Journal of Computational Neuroscience</i> , 2002, 13, 167-186.	0.6	49
154	Balancing homeostasis and learning in neural circuits. <i>Zoology</i> , 2003, 106, 365-371.	0.6	17
155	Synaptic plasticity determines the character of interaural-time-difference representation. <i>Neurocomputing</i> , 2003, 52-54, 321-326.	3.5	1
156	Sorting and convergence of primary olfactory axons are independent of the olfactory bulb. <i>Journal of Comparative Neurology</i> , 2003, 464, 131-140.	0.9	63
157	Topography and synaptic shaping of direction selectivity in primary auditory cortex. <i>Nature</i> , 2003, 424, 201-205.	13.7	343
158	NEUROSCIENCE: Synaptic Modification by Vision. <i>Science</i> , 2003, 300, 1890-1891.	6.0	5
159	Neocortical LTD via Coincident Activation of Presynaptic NMDA and Cannabinoid Receptors. <i>Neuron</i> , 2003, 39, 641-654.	3.8	532
160	Coincident Pre- and Postsynaptic Activity Modifies GABAergic Synapses by Postsynaptic Changes in Cl ⁻ Transporter Activity. <i>Neuron</i> , 2003, 39, 807-820.	3.8	375
161	Training integrate-and-fire neurons with the informax principle II. <i>IEEE Transactions on Neural Networks</i> , 2003, 14, 326-336.	4.8	10
162	Learning temporal correlations in biologically-inspired aVLSI. , 0, , .		9
163	Change of conduction velocity by regional myelination yields constant latency irrespective of distance between thalamus and cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 6174-6179.	3.3	261
164	Robustness of retrieval properties against imbalance between long-term potentiation and depression of spike-timing-dependent plasticity. <i>Physical Review E</i> , 2003, 68, 061914.	0.8	2
165	Isotropic Sequence Order Learning. <i>Neural Computation</i> , 2003, 15, 831-864.	1.3	59
166	Reversal and Stabilization of Synaptic Modifications in a Developing Visual System. <i>Science</i> , 2003, 300, 1953-1957.	6.0	144

#	ARTICLE	IF	CITATIONS
167	Suppression of cortical representation through backward conditioning. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1405-1408.	3.3	39
168	Spike-Timing-Dependent Plasticity and Relevant Mutual Information Maximization. Neural Computation, 2003, 15, 1481-1510.	1.3	39
169	A Stochastic Method to Predict the Consequence of Arbitrary Forms of Spike-Timing-Dependent Plasticity. Neural Computation, 2003, 15, 597-620.	1.3	63
170	Complex Cell-like Direction Selectivity through Spike-Timing Dependent Plasticity. IETE Journal of Research, 2003, 49, 97-111.	1.8	4
171	Self-organizing neural systems based on predictive learning. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1149-1175.	1.6	25
172	A Temporally Asymmetric Hebbian Rule Governing Plasticity in the Human Motor Cortex. Journal of Neurophysiology, 2003, 89, 2339-2345.	0.9	528
173	A Two-Stage Unsupervised Learning Algorithm Reproduces Multisensory Enhancement in a Neural Network Model of the Corticotectal System. Journal of Neuroscience, 2003, 23, 6713-6727.	1.7	38
174	Maturation of Long-Term Potentiation Induction Rules in Rodent Hippocampus: Role of GABAergic Inhibition. Journal of Neuroscience, 2003, 23, 11142-11146.	1.7	142
175	Progressive Degradation and Subsequent Refinement of Acoustic Representations in the Adult Auditory Cortex. Journal of Neuroscience, 2003, 23, 10765-10775.	1.7	92
176	Enhancement of Synchronization in a Hybrid Neural Circuit by Spike-Timing Dependent Plasticity. Journal of Neuroscience, 2003, 23, 9776-9785.	1.7	116
177	Learning Input Correlations through Nonlinear Temporally Asymmetric Hebbian Plasticity. Journal of Neuroscience, 2003, 23, 3697-3714.	1.7	329
178	Visuomotor Behaviors in Larval Zebrafish after GFP-Guided Laser Ablation of the Optic Tectum. Journal of Neuroscience, 2003, 23, 3726-3734.	1.7	185
179	Chronic NMDA Receptor Blockade From Birth Delays the Maturation of NMDA Currents, but Does Not Affect AMPA/Kainate Currents. Journal of Neurophysiology, 2003, 89, 57-68.	0.9	31
180	NMDA Receptor Blockade in the Superior Colliculus Increases Receptive Field Size Without Altering Velocity and Size Tuning. Journal of Neurophysiology, 2003, 90, 110-119.	0.9	24
181	Spike-Timing-Dependent Plasticity: The Relationship to Rate-Based Learning for Models with Weight Dynamics Determined by a Stable Fixed Point. Neural Computation, 2004, 16, 885-940.	1.3	73
182	Developing sensorimotor behavior with a network of spiking neurons. , 2004, , .		0
183	Spatial and Temporal Properties of Visual Responses in the Thalamus of the Developing Ferret. Journal of Neuroscience, 2004, 24, 170-182.	1.7	17
184	Intracortical mechanism of stimulus-timing-dependent plasticity in visual cortical orientation tuning. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5081-5086.	3.3	48

#	ARTICLE	IF	CITATIONS
185	Temporally Asymmetric Learning Supports Sequence Processing in Multi-Winner Self-Organizing Maps. <i>Neural Computation</i> , 2004, 16, 535-561.	1.3	26
186	Self-Organizing Dual Coding Based on Spike-Time-Dependent Plasticity. <i>Neural Computation</i> , 2004, 16, 627-663.	1.3	16
187	Modulation of spike timing by sensory deprivation during induction of cortical map plasticity. <i>Nature Neuroscience</i> , 2004, 7, 534-541.	7.1	169
188	Cell-specific, spike timing-dependent plasticities in the dorsal cochlear nucleus. <i>Nature Neuroscience</i> , 2004, 7, 719-725.	7.1	277
189	Rapid BDNF-induced retrograde synaptic modification in a developing retinotectal system. <i>Nature</i> , 2004, 429, 878-883.	13.7	103
190	Gene regulation and DNA damage in the ageing human brain. <i>Nature</i> , 2004, 429, 883-891.	13.7	1,666
191	Self-organization of delay lines by spike-time-dependent learning. <i>Neurocomputing</i> , 2004, 61, 291-316.	3.5	1
192	A network of spiking neurons develops sensorimotor mechanisms while guiding behavior. <i>Neurocomputing</i> , 2004, 58-60, 1057-1063.	3.5	4
193	Temporal codes and sparse representations: A key to understanding rapid processing in the visual system. <i>Journal of Physiology (Paris)</i> , 2004, 98, 487-497.	2.1	50
194	Long-Term Characterization of Firing Dynamics of Spontaneous Bursts in Cultured Neural Networks. <i>IEEE Transactions on Biomedical Engineering</i> , 2004, 51, 2051-2062.	2.5	257
195	Improvement of signal transmission through spike-timing-dependent plasticity in neural networks. <i>European Physical Journal B</i> , 2004, 39, 351-356.	0.6	9
196	Spatial Localization of Synapses Required for Supralinear Summation of Action Potentials and EPSPs. <i>Journal of Computational Neuroscience</i> , 2004, 16, 251-256.	0.6	12
197	The evidence for neural information processing with precise spike-times: A survey. <i>Natural Computing</i> , 2004, 3, 195-206.	1.8	124
198	Cellular, Circuit, and Synaptic Mechanisms in Song Learning. <i>Annals of the New York Academy of Sciences</i> , 2004, 1016, 495-523.	1.8	53
199	Input-dependent learning rule for the memory of spatiotemporal sequences in hippocampal network with theta phase precession. <i>Biological Cybernetics</i> , 2004, 90, 113-124.	0.6	20
201	Change of memory formation according to STDP in a continuous-time neural network model. <i>Systems and Computers in Japan</i> , 2004, 35, 57-66.	0.2	2
202	The role of ECM molecules in activity-dependent synaptic development and plasticity. <i>Birth Defects Research Part C: Embryo Today Reviews</i> , 2004, 72, 12-24.	3.6	30
203	Activity-driven sharpening of the retinotectal projection: The search for retrograde synaptic signaling pathways. <i>Journal of Neurobiology</i> , 2004, 59, 114-133.	3.7	61

#	ARTICLE	IF	CITATIONS
204	Insights into activity-dependent map formation from the retinotectal system: A middle-of-the-brain perspective. <i>Journal of Neurobiology</i> , 2004, 59, 134-146.	3.7	150
205	Impact of deviation from precise balance of spike-timing-dependent plasticity. <i>Neural Networks</i> , 2004, 17, 917-924.	3.3	1
206	Synchrony Detection and Amplification by Silicon Neurons With STDP Synapses. <i>IEEE Transactions on Neural Networks</i> , 2004, 15, 1296-1304.	4.8	121
207	Chapter 59 Paired associative stimulation. <i>Supplements To Clinical Neurophysiology</i> , 2004, 57, 563-569.	2.1	86
208	Coding and learning of behavioral sequences. <i>Trends in Neurosciences</i> , 2004, 27, 11-14.	4.2	55
209	Spike Timing-Dependent Plasticity of Neural Circuits. <i>Neuron</i> , 2004, 44, 23-30.	3.8	899
210	Bidirectional Modification of Presynaptic Neuronal Excitability Accompanying Spike Timing-Dependent Synaptic Plasticity. <i>Neuron</i> , 2004, 41, 257-268.	3.8	77
211	Spike Train Timing-Dependent Associative Modification of Hippocampal CA3 Recurrent Synapses by Mossy Fibers. <i>Neuron</i> , 2004, 41, 445-454.	3.8	98
212	Roles of coherent ongoing oscillations among dynamic cell assemblies in object perception. <i>Network: Computation in Neural Systems</i> , 2004, 15, 111-132.	2.2	0
213	Information transformation from a spatiotemporal pattern to synchrony through STDP network. , 0, , .		1
214	Stochastic Properties of Synaptic Transmission Affect the Shape of Spike Time-Dependent Plasticity Curves. <i>Journal of Neurophysiology</i> , 2005, 93, 1069-1073.	0.9	69
215	Synaptic Learning Rules, Cortical Circuits, and Visual Function. <i>Neuroscientist</i> , 2005, 11, 206-216.	2.6	20
216	Coactivation and timing-dependent integration of synaptic potentiation and depression. <i>Nature Neuroscience</i> , 2005, 8, 187-193.	7.1	262
217	Time-matched pre- and postsynaptic changes of GABAergic synaptic transmission in the developing mouse superior colliculus. <i>Journal of Physiology</i> , 2005, 563, 795-807.	1.3	22
218	Effect of dendritic backpropagating action potential on neural interaction. <i>Neurocomputing</i> , 2005, 65-66, 343-348.	3.5	0
219	Spatial analysis of spike-timing-dependent LTP and LTD in the CA1 area of hippocampal slices using optical imaging. <i>Hippocampus</i> , 2005, 15, 104-109.	0.9	59
220	Growth and Behavioral Traits in Donaldson Rainbow Trout (<i>Oncorhynchus mykiss</i>) Cosegregate with Classical Major Histocompatibility Complex (MHC) Class I Genotype. <i>Behavior Genetics</i> , 2005, 35, 463-478.	1.4	37
221	Spontaneously emerging direction selectivity maps in visual cortex through STDP. <i>Biological Cybernetics</i> , 2005, 93, 239-247.	0.6	45

#	ARTICLE	IF	CITATIONS
222	The Possible Role of Spike Patterns in Cortical Information Processing. <i>Journal of Computational Neuroscience</i> , 2005, 18, 275-286.	0.6	18
223	Spike Timing-Dependent Synaptic Plasticity in Visual Cortex: A Modeling Study. <i>Journal of Computational Neuroscience</i> , 2005, 18, 25-39.	0.6	3
224	Experience-Dependent Plasticity in S1 Caused by Noncoincident Inputs. <i>Journal of Neurophysiology</i> , 2005, 94, 2239-2250.	0.9	34
225	Encoding the Timing of Inhibitory Inputs. <i>Journal of Neurophysiology</i> , 2005, 93, 2887-2897.	0.9	25
226	Spatial Navigation Based on Novelty Mediated Autobiographical Memory. <i>Lecture Notes in Computer Science</i> , 2005, , 356-365.	1.0	1
227	Neurons Tune to the Earliest Spikes Through STDP. <i>Neural Computation</i> , 2005, 17, 859-879.	1.3	109
228	Synaptic and Temporal Ensemble Interpretation of Spike-Timing-Dependent Plasticity. <i>Neural Computation</i> , 2005, 17, 2316-2336.	1.3	24
229	Efficient episode encoding for spatial navigation. <i>International Journal of Systems Science</i> , 2005, 36, 887-895.	3.7	7
230	Calcium Time Course as a Signal for Spike-Timing-Dependent Plasticity. <i>Journal of Neurophysiology</i> , 2005, 93, 2600-2613.	0.9	156
231	Increasing Ca ²⁺ transients by broadening postsynaptic action potentials enhances timing-dependent synaptic depression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 19121-19125.	3.3	55
233	Reorganization of Auditory Cortex by Pairing and Anti-Pairing Intracortical Microstimulation. , 0, , .		1
234	Dynamics and plasticity in developing neuronal networks in vitro. <i>Progress in Brain Research</i> , 2005, 147, 171-188.	0.9	128
235	Spiking Neurons Learning Phase Delays: How Mammals May Develop Auditory Time-Difference Sensitivity. <i>Physical Review Letters</i> , 2005, 94, 168102.	2.9	21
236	Nicotinic Acetylcholine Receptors at Glutamate Synapses Facilitate Long-Term Depression or Potentiation. <i>Journal of Neuroscience</i> , 2005, 25, 6084-6091.	1.7	112
237	Temporal Sequence Learning, Prediction, and Control: A Review of Different Models and Their Relation to Biological Mechanisms. <i>Neural Computation</i> , 2005, 17, 245-319.	1.3	173
238	Learning Arbitrary Functions with Spike-Timing Dependent Plasticity Learning Rule. , 0, , .		0
239	Ion Channel Development, Spontaneous Activity, and Activity-Dependent Development in Nerve and Muscle Cells. <i>Physiological Reviews</i> , 2005, 85, 883-941.	13.1	339
240	Asynchronous inputs alter excitability, spike timing, and topography in primary auditory cortex. <i>Hearing Research</i> , 2005, 203, 10-20.	0.9	20

#	ARTICLE	IF	CITATIONS
241	Timing in synaptic plasticity: from detection to integration. Trends in Neurosciences, 2005, 28, 222-228.	4.2	60
242	Activity-Dependent Matching of Excitatory and Inhibitory Inputs during Refinement of Visual Receptive Fields. Neuron, 2005, 45, 829-836.	3.8	139
243	Optimal Spike-Timing-Dependent Plasticity for Precise Action Potential Firing in Supervised Learning. Neural Computation, 2006, 18, 1318-1348.	1.3	208
244	A Neuromorphic Depth-From-Motion Vision Model With STDP Adaptation. IEEE Transactions on Neural Networks, 2006, 17, 482-495.	4.8	23
245	Extraction of Phase Information Buried in Fluctuation of a Pulse-type Hardware Neuron Model Using STDP. , 2006, , .		2
247	Spike Timing-Dependent Plasticity: From Synapse to Perception. Physiological Reviews, 2006, 86, 1033-1048.	13.1	574
248	Synaptic efficacy cluster formation across the dendrite via STDP. Neuroscience Letters, 2006, 403, 24-29.	1.0	23
249	Receptive-Field Modification in Rat Visual Cortex Induced by Paired Visual Stimulation and Single-Cell Spiking. Neuron, 2006, 49, 183-189.	3.8	158
250	Spatiotemporal Specificity of Neuronal Activity Directs the Modification of Receptive Fields in the Developing Retinotectal System. Neuron, 2006, 50, 101-114.	3.8	64
251	Spike Timing-Dependent LTP/LTD Mediates Visual Experience-Dependent Plasticity in a Developing Retinotectal System. Neuron, 2006, 50, 115-125.	3.8	149
252	Age-related decrease of the chorda tympani nerve terminal field in the nucleus of the solitary tract is prevented by dietary sodium restriction during development. Neuroscience, 2006, 137, 1229-1236.	1.1	31
253	Plasticity in visual connections: retinal ganglion cell axonal development and regeneration. , 0, , 147-161.		0
254	Contribution of Individual Spikes in Burst-Induced Long-Term Synaptic Modification. Journal of Neurophysiology, 2006, 95, 1620-1629.	0.9	182
255	Extraction of Phase Information Buried in Fluctuation of a Pulse-type Hardware Neuron Model Using STDP. , 0, , .		0
256	Computational Developmental Neuroscience: Exploring the Interactions Between Genetics and Neural Activity. , 0, , .		0
257	Non-fibrillar β -amyloid abates spike-timing-dependent synaptic potentiation at excitatory synapses in layer 2/3 of the neocortex by targeting postsynaptic AMPA receptors. European Journal of Neuroscience, 2006, 23, 2035-2047.	1.2	76
258	Visual stimuli-induced LTD of GABAergic synapses mediated by presynaptic NMDA receptors. Nature Neuroscience, 2006, 9, 372-380.	7.1	98
259	RNA interference of Xenopus NMDAR NR1 in vitro and in vivo. Journal of Neuroscience Methods, 2006, 152, 65-73.	1.3	11

#	ARTICLE	IF	CITATIONS
260	Temporal correlation based learning in neuron models. Theory in Biosciences, 2006, 125, 37-53.	0.6	7
261	Dendritic spikes and activity-dependent synaptic plasticity. Cell and Tissue Research, 2006, 326, 369-377.	1.5	37
262	Novel presynaptic mechanisms for coincidence detection in synaptic plasticity. Current Opinion in Neurobiology, 2006, 16, 312-322.	2.0	104
263	An artificial early visual model adopting spike-timing-dependent plasticity. Neurocomputing, 2006, 69, 1904-1911.	3.5	4
264	Developmental period for N-methyl-D-aspartate (NMDA) receptor-dependent synapse elimination correlated with visuotopic map refinement. Journal of Comparative Neurology, 2006, 494, 738-751.	0.9	42
265	Auditory Cortical Plasticity Induced by Intracortical Microstimulation under Pharmacological Blockage of Inhibitory Synapses. , 2006, 2006, 4929-32.		0
266	Cochlear implants: cortical plasticity in congenital deprivation. Progress in Brain Research, 2006, 157, 283-402.	0.9	121
267	Stable Competitive Dynamics Emerge from Multispike Interactions in a Stochastic Model of Spike-Timing-Dependent Plasticity. Neural Computation, 2006, 18, 2414-2464.	1.3	24
268	Synaptic Democracy in Active Dendrites. Journal of Neurophysiology, 2006, 96, 2307-2318.	0.9	56
269	Long-Term Potentiation in the Juvenile Superior Colliculus Requires Simultaneous Activation of NMDA Receptors and L-type Ca ²⁺ Channels and Reflects Addition of Newly Functional Synapses. Journal of Neuroscience, 2006, 26, 12647-12655.	1.7	25
270	Increasing the Frequency of Spontaneous Rhythmic Activity Disrupts Pool-Specific Axon Fasciculation and Pathfinding of Embryonic Spinal Motoneurons. Journal of Neuroscience, 2006, 26, 12769-12780.	1.7	75
272	Depolarizing GABAergic Conductances Regulate the Balance of Excitation to Inhibition in the Developing Retinotectal Circuit In Vivo. Journal of Neuroscience, 2006, 26, 5117-5130.	1.7	170
273	Cooperation of spike timing-dependent and heterosynaptic plasticities in neural networks: A Fokker-Planck approach. Chaos, 2006, 16, 023105.	1.0	8
274	Learning the structure of correlated synaptic subgroups using stable and competitive spike-timing-dependent plasticity. Physical Review E, 2006, 73, 041911.	0.8	28
275	Computational Developmental Neuroscience: Exploring the Interactions Between Genetics and Neural Activity. , 2006, , .		0
276	Role of Efficient Neurotransmitter Release in Barrel Map Development. Journal of Neuroscience, 2006, 26, 2692-2703.	1.7	50
277	Triplets of Spikes in a Model of Spike Timing-Dependent Plasticity. Journal of Neuroscience, 2006, 26, 9673-9682.	1.7	515
278	AN ADAPTIVE VISUAL NEURONAL MODEL IMPLEMENTING COMPETITIVE, TEMPORALLY ASYMMETRIC HEBBIAN LEARNING. International Journal of Neural Systems, 2006, 16, 151-162.	3.2	2

#	ARTICLE	IF	CITATIONS
279	Memory Evolutive Systems. Studies in Multidisciplinarity, 2007, 4, 1-386.	0.0	3
280	Heterosynaptic Scaling of Developing GABAergic Synapses: Dependence on Glutamatergic Input and Developmental Stage. Journal of Neuroscience, 2007, 27, 5301-5312.	1.7	66
281	Slowness: An Objective for Spike-Timing-Dependent Plasticity?. PLoS Computational Biology, 2007, 3, e112.	1.5	65
282	Unsupervised Learning of Visual Features through Spike Timing Dependent Plasticity. PLoS Computational Biology, 2007, 3, e31.	1.5	409
283	Synchrony-Induced Switching Behavior of Spike Pattern Attractors Created by Spike-Timing-Dependent Plasticity. Neural Computation, 2007, 19, 2720-2738.	1.3	13
284	Reducing the Variability of Neural Responses: A Computational Theory of Spike-Timing-Dependent Plasticity. Neural Computation, 2007, 19, 371-403.	1.3	29
285	Multispike Interactions in a Stochastic Model of Spike-Timing-Dependent Plasticity. Neural Computation, 2007, 19, 1362-1399.	1.3	13
286	Spike-Timing-Dependent Plasticity in Balanced Random Networks. Neural Computation, 2007, 19, 1437-1467.	1.3	284
287	Spatiotemporal learning in analog neural networks using spike-timing-dependent synaptic plasticity. Physical Review E, 2007, 75, 051917.	0.8	12
288	Equalization of Synaptic Efficacy by Synchronous Neural Activity. Physical Review Letters, 2007, 99, 208102.	2.9	9
289	Reduced gap junctional coupling leads to uncorrelated motor neuron firing and precocious neuromuscular synapse elimination. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11808-11813.	3.3	91
290	STDP enhances frequency synchrony in neural networks with a pacemaker. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	0
291	Dynamically Sliding Threshold Model Reproduces the Initial-Strength Dependence of Spike-Timing Dependent Synaptic Plasticity. Journal of the Physical Society of Japan, 2007, 76, 114802.	0.7	0
292	Vesicular Glutamate Transport at a Central Synapse Limits the Acuity of Visual Perception in Zebrafish. Neuron, 2007, 53, 65-77.	3.8	90
293	Development of Continuous and Discrete Neural Maps. Neuron, 2007, 56, 284-300.	3.8	189
294	Latency dependent development of related firing patterns of cultured cortical neurons. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3000-3.	0.5	2
295	Optimality Model of Unsupervised Spike-Timing-Dependent Plasticity: Synaptic Memory and Weight Distribution. Neural Computation, 2007, 19, 639-671.	1.3	41
296	Analog VLSI Circuit Implementation of an Adaptive Neuromorphic Olfaction Chip. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2007, 54, 60-73.	0.1	122

#	ARTICLE	IF	CITATIONS
297	Learning Real-World Stimuli in a Neural Network with Spike-Driven Synaptic Dynamics. <i>Neural Computation</i> , 2007, 19, 2881-2912.	1.3	310
298	A novel energy efficient and reliable clustering algorithm in wireless sensor networks. , 2007, , .		3
299	A Burst-Based "Hebbian" Learning Rule at Retinogeniculate Synapses Links Retinal Waves to Activity-Dependent Refinement. <i>PLoS Biology</i> , 2007, 5, e61.	2.6	176
300	Sustained Rhythmic Activity in Gap-Junctionally Coupled Networks of Model Neurons Depends on the Diameter of Coupled Dendrites. <i>Journal of Neurophysiology</i> , 2007, 98, 3450-3460.	0.9	16
301	DOES SPIKE TIMING-DEPENDENT SYNAPTIC PLASTICITY UNDERLIE MEMORY FORMATION?. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2007, 34, 1070-1076.	0.9	26
302	A critical survey on nitric oxide synthase expression and nitric oxide function in the retinotectal system. <i>Brain Research Reviews</i> , 2007, 56, 403-426.	9.1	8
303	Formation of feedforward networks and frequency synchrony by spike-timing-dependent plasticity. <i>Journal of Computational Neuroscience</i> , 2007, 22, 327-345.	0.6	82
304	The instructive role of binocular vision in the <i>Xenopus</i> tectum. <i>Biological Cybernetics</i> , 2007, 97, 493-503.	0.6	6
305	Interaction between the Spatiotemporal Learning Rule (STLR) and Hebb type (HEBB) in single pyramidal cells in the hippocampal CA1 Area. <i>Cognitive Neurodynamics</i> , 2007, 1, 157-167.	2.3	32
306	A model for synaptic development regulated by NMDA receptor subunit expression. <i>Journal of Computational Neuroscience</i> , 2008, 24, 1-20.	0.6	18
307	Sportmotorik und Gehirn. <i>Sportwissenschaft</i> , 2008, 38, 423-450.	0.6	3
308	Cooperation in self-organizing map networks enhances information transmission in the presence of input background activity. <i>Biological Cybernetics</i> , 2008, 98, 195-211.	0.6	4
309	Inhibition, not excitation, is the key to multimodal sensory integration. <i>Biological Cybernetics</i> , 2008, 98, 597-618.	0.6	16
310	Arachidonic acid as a retrograde signal controlling growth and dynamics of retinotectal arbors. <i>Developmental Neurobiology</i> , 2008, 68, 18-30.	1.5	30
311	2D co-ordinate transformation based on a spike timing-dependent plasticity learning mechanism. <i>Neural Networks</i> , 2008, 21, 1318-1327.	3.3	14
312	Spike Timing-Dependent Plasticity: A Hebbian Learning Rule. <i>Annual Review of Neuroscience</i> , 2008, 31, 25-46.	5.0	1,490
313	Development and spike timing-dependent plasticity of recurrent excitation in the <i>Xenopus</i> optic tectum. <i>Nature Neuroscience</i> , 2008, 11, 467-475.	7.1	74
314	Experience-dependent changes in spatiotemporal properties of cutaneous inputs remodel somatosensory cortical maps following skin flap rotation. <i>European Journal of Neuroscience</i> , 2008, 27, 1245-1260.	1.2	13

#	ARTICLE	IF	CITATIONS
315	Analysis of Cultured Neuronal Networks Using Intraburst Firing Characteristics. IEEE Transactions on Biomedical Engineering, 2008, 55, 1382-1390.	2.5	47
316	STDP Provides the Substrate for Igniting Synfire Chains by Spatiotemporal Input Patterns. Neural Computation, 2008, 20, 415-435.	1.3	36
317	Structural And Functional Organization Of The Synapse. , 2008, , .		8
318	Action Potentials in Dendrites and Spike-Timing-Dependent Plasticity. , 2008, , 803-828.		2
319	New Experiences Enhance Coordinated Neural Activity in the Hippocampus. Neuron, 2008, 57, 303-313.	3.8	242
320	A Precisely Timed Asynchronous Pattern of ON and OFF Retinal Ganglion Cell Activity during Propagation of Retinal Waves. Neuron, 2008, 58, 851-858.	3.8	84
321	Dendritic Excitability and Synaptic Plasticity. Physiological Reviews, 2008, 88, 769-840.	13.1	607
322	Imprinting of idiosyncratic experience in cortical sensory maps: Neural substrates of representational remodeling and correlative perceptual changes. Behavioural Brain Research, 2008, 192, 26-41.	1.2	30
323	Homosynaptic Long-Term Synaptic Potentiation of the "Winner" Climbing Fiber Synapse in Developing Purkinje Cells. Journal of Neuroscience, 2008, 28, 798-807.	1.7	79
324	NMDA Receptor Blockade Maintains Correlated Motor Neuron Firing and Delays Synapse Competition at Developing Neuromuscular Junctions. Journal of Neuroscience, 2008, 28, 8983-8992.	1.7	18
325	Stimulus-Timing-Dependent Plasticity of Cortical Frequency Representation. Journal of Neuroscience, 2008, 28, 13629-13639.	1.7	63
326	Temporal Dynamics of Rate-Based Synaptic Plasticity Rules in a Stochastic Model of Spike-Timing-Dependent Plasticity. Neural Computation, 2008, 20, 2253-2307.	1.3	17
327	Minimizing the Effect of Process Mismatch in a Neuromorphic System Using Spike-Timing-Dependent Adaptation. IEEE Transactions on Neural Networks, 2008, 19, 899-913.	4.8	17
328	Song selectivity, singing, and synaptic plasticity in songbirds. , 0, , 363-384.		0
329	Spike Timing Dependent Plasticity Finds the Start of Repeating Patterns in Continuous Spike Trains. PLoS ONE, 2008, 3, e1377.	1.1	224
330	Towards a General Theory of Neural Computation Based on Prediction by Single Neurons. PLoS ONE, 2008, 3, e3298.	1.1	43
331	Evolving Synaptic Plasticity with an Evolutionary Cellular Development Model. PLoS ONE, 2008, 3, e3697.	1.1	5
332	Predictive Learning of Temporal Sequences in Recurrent Neocortical Circuits. Novartis Foundation Symposium, 2008, 239, 208-233.	1.2	15

#	ARTICLE	IF	CITATIONS
333	A Hebbian Learning Rule Mediates Asymmetric Plasticity in Aligning Sensory Representations. <i>Journal of Neurophysiology</i> , 2008, 100, 1067-1079.	0.9	14
334	Multisensory Integration in Mesencephalic Trigeminal Neurons in <i>Xenopus</i> Tadpoles. <i>Journal of Neurophysiology</i> , 2009, 102, 399-412.	0.9	25
335	Spike-Timing-Dependent Synaptic Plasticity and Synaptic Democracy in Dendrites. <i>Journal of Neurophysiology</i> , 2009, 101, 3226-3234.	0.9	13
336	Memristance can explain Spike-Time-Dependent-Plasticity in Neural Synapses. <i>Nature Precedings</i> , 0, , .	0.1	128
337	Self-organization of feed-forward structure and entrainment in excitatory neural networks with spike-timing-dependent plasticity. <i>Physical Review E</i> , 2009, 79, 051904.	0.8	37
338	Characterization of Rhythmic Ca ²⁺ Transients in Early Embryonic Chick Motoneurons: Ca ²⁺ Sources and Effects of Altered Activation of Transmitter Receptors. <i>Journal of Neuroscience</i> , 2009, 29, 15232-15244.	1.7	33
339	At Immature Mossy-Fiber-CA3 Synapses, Correlated Presynaptic and Postsynaptic Activity Persistently Enhances GABA Release and Network Excitability via BDNF and cAMP-Dependent PKA. <i>Journal of Neuroscience</i> , 2009, 29, 2637-2647.	1.7	76
340	D1-Receptor Impact on Neuroplasticity in Humans. <i>Journal of Neuroscience</i> , 2009, 29, 2648-2653.	1.7	98
341	Comparison and Regulation of Neuronal Synchronization for Various STDP Rules. <i>Neural Plasticity</i> , 2009, 2009, 1-12.	1.0	9
342	A Spiking Neural Network Model of an Actor-Critic Learning Agent. <i>Neural Computation</i> , 2009, 21, 301-339.	1.3	79
343	Getting to Know Your Neighbors: Unsupervised Learning of Topography from Real-World, Event-Based Input. <i>Neural Computation</i> , 2009, 21, 216-238.	1.3	8
344	Taming Fluctuations in a Stochastic Model of Spike-Timing-Dependent Plasticity. <i>Neural Computation</i> , 2009, 21, 3363-3407.	1.3	11
345	Burst-Time-Dependent Plasticity Robustly Guides ON/OFF Segregation in the Lateral Geniculate Nucleus. <i>PLoS Computational Biology</i> , 2009, 5, e1000618.	1.5	40
346	A Multi-Component Model of the Developing Retinocollicular Pathway Incorporating Axonal and Synaptic Growth. <i>PLoS Computational Biology</i> , 2009, 5, e1000600.	1.5	31
347	The Electrotonic Structure of Pyramidal Neurons Contributing to Prefrontal Cortical Circuits in Macaque Monkeys Is Significantly Altered in Aging. <i>Cerebral Cortex</i> , 2009, 19, 2248-2268.	1.6	82
348	Cortical Gamma Rhythms Modulate NMDAR-Mediated Spike Timing Dependent Plasticity in a Biophysical Model. <i>PLoS Computational Biology</i> , 2009, 5, e1000602.	1.5	43
349	Functional Time Series Prediction Using Process Neural Network. <i>Chinese Physics Letters</i> , 2009, 26, 090502.	1.3	1
350	Development of Multisensory Convergence in the <i>Xenopus</i> Optic Tectum. <i>Journal of Neurophysiology</i> , 2009, 102, 3392-3404.	0.9	34

#	ARTICLE	IF	CITATIONS
351	Reverberatory activity in neuronal networks in vitro. Science Bulletin, 2009, 54, 1828-1835.	4.3	4
352	How does non-random spontaneous activity contribute to brain development?. Neural Networks, 2009, 22, 901-912.	3.3	11
353	Evolution of network structure by temporal learning. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 1959-1966.	1.2	16
354	Subcellular Topography of Visually Driven Dendritic Activity in the Vertebrate Visual System. Neuron, 2009, 61, 895-905.	3.8	70
355	Metaplasticity Governs Natural Experience-Driven Plasticity of Nascent Embryonic Brain Circuits. Neuron, 2009, 64, 240-250.	3.8	36
356	History Matters: Illuminating Metaplasticity in the Developing Brain. Neuron, 2009, 64, 155-157.	3.8	2
357	A Stretch from the Periphery Helps Brain Clocks Feel the Daily Heat. Neuron, 2009, 64, 157-160.	3.8	2
358	Connection-centric network for spiking neural networks. , 2009, , .		26
359	Phase-dependent neuronal coding of objects in short-term memory. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21341-21346.	3.3	494
360	Latency-Related Development of Functional Connections in Cultured Cortical Networks. Biophysical Journal, 2009, 96, 3443-3450.	0.2	21
361	Experimental and computational aspects of signaling mechanisms of spike-timing-dependent plasticity. HFSP Journal, 2009, 3, 240-254.	2.5	9
362	Coherent Behavior in Neuronal Networks. , 2009, , .		5
363	Competitive STDP-Based Spike Pattern Learning. Neural Computation, 2009, 21, 1259-1276.	1.3	248
364	Self-organization in the developing nervous system: Theoretical models. HFSP Journal, 2009, 3, 176-185.	2.5	14
365	Recognition of Abstract Objects Via Neural Oscillators: Interaction Among Topological Organization, Associative Memory and Gamma Band Synchronization. IEEE Transactions on Neural Networks, 2009, 20, 316-335.	4.8	39
366	Dendritic Spine Dynamics. Annual Review of Physiology, 2009, 71, 261-282.	5.6	340
367	Spike-Timing-Dependent Plasticity (STDP). , 2009, , 265-268.		11
368	Spike-Timing-Dependent Plasticity Models. , 2009, , 269-275.		0

#	ARTICLE	IF	CITATIONS
369	Optimality in mono- and multisensory map formation. <i>Biological Cybernetics</i> , 2010, 103, 1-20.	0.6	5
370	Computational Developmental Neuroscience: Capturing Developmental Trajectories From Genes to Cognition. <i>IEEE Transactions on Autonomous Mental Development</i> , 2010, 2, 51-58.	2.3	3
371	Synchronous neural activity and memory formation. <i>Current Opinion in Neurobiology</i> , 2010, 20, 150-155.	2.0	170
372	Irregular morphine administration affects the retention but not acquisition of conditioned place preference in rats. <i>Brain Research</i> , 2010, 1311, 86-92.	1.1	1
373	Synaptic maturation of the <i>Xenopus</i> retinotectal system: Effects of brain-derived neurotrophic factor on synapse ultrastructure. <i>Journal of Comparative Neurology</i> , 2010, 518, 972-989.	0.9	17
374	Brain networks: Graph theoretical analysis and development models. <i>International Journal of Imaging Systems and Technology</i> , 2010, 20, 108-116.	2.7	7
375	Ionic/Electronic Hybrid Materials Integrated in a Synaptic Transistor with Signal Processing and Learning Functions. <i>Advanced Materials</i> , 2010, 22, 2448-2453.	11.1	283
376	Synaptic rewiring for topographic mapping and receptive field development. <i>Neural Networks</i> , 2010, 23, 517-527.	3.3	14
377	GABAergic circuits control stimulus-instructed receptive field development in the optic tectum. <i>Nature Neuroscience</i> , 2010, 13, 1098-1106.	7.1	25
378	In vivo single-cell excitability probing of neuronal ensembles in the intact and awake developing <i>Xenopus</i> brain. <i>Nature Protocols</i> , 2010, 5, 841-848.	5.5	10
379	A spiking neural network model of the medial superior olive using spike timing dependent plasticity for sound localization. <i>Frontiers in Computational Neuroscience</i> , 2010, 4, .	1.2	25
380	Spike timing-dependent plasticity as the origin of the formation of clustered synaptic efficacy engrams. <i>Frontiers in Computational Neuroscience</i> , 2010, 4, .	1.2	13
381	STDP in Adaptive Neurons Gives Close-To-Optimal Information Transmission. <i>Frontiers in Computational Neuroscience</i> , 2010, 4, 143.	1.2	23
382	Homeostatic plasticity and STDP: keeping a neuron's cool in a fluctuating world. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 5.	1.3	157
383	In vivo spike-timing-dependent plasticity in the optic tectum of <i>Xenopus laevis</i> . <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 7.	1.3	20
384	A developmental sensitive period for spike timing-dependent plasticity in the retinotectal projection. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 13.	1.3	16
385	GABAergic synaptic transmission regulates calcium influx during spike-timing dependent plasticity. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 16.	1.3	13
386	Temporal modulation of spike-timing-dependent plasticity. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 19.	1.3	57

#	ARTICLE	IF	CITATIONS
387	Spike-timing dependent plasticity beyond synapse - pre- and post-synaptic plasticity of intrinsic neuronal excitability. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 21.	1.3	55
388	GABAergic activities control spike timing- and frequency-dependent long-term depression at hippocampal excitatory synapses. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 22.	1.3	28
389	The applicability of spike time dependent plasticity to development. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 30.	1.3	32
390	Plasticity resembling spike-timing dependent synaptic plasticity: the evidence in human cortex. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 34.	1.3	94
391	Spike timing dependent plasticity in the intact brain: counteracting spurious spike coincidences.. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 4, 137.	1.3	17
392	Synaptic Activity and Activity-Dependent Competition Regulates Axon Arbor Maturation, Growth Arrest, and Territory in the Retinotectal Projection. <i>Journal of Neuroscience</i> , 2010, 30, 10939-10951.	1.7	121
393	Movement-Related Cortical Stimulation Can Induce Human Motor Plasticity. <i>Journal of Neuroscience</i> , 2010, 30, 11529-11536.	1.7	57
394	Questions about STDP as a General Model of Synaptic Plasticity. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 140.	1.3	79
395	Maturation of GABAergic Inhibition Promotes Strengthening of Temporally Coherent Inputs among Convergent Pathways. <i>PLoS Computational Biology</i> , 2010, 6, e1000797.	1.5	41
396	AMPA receptors gate spine Ca ²⁺ transients and spike-timing-dependent potentiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 15975-15980.	3.3	42
397	Enhancement of signal sensitivity in a heterogeneous neural network refined from synaptic plasticity. <i>New Journal of Physics</i> , 2010, 12, 083045.	1.2	16
398	Discrete States of Synaptic Strength in a Stochastic Model of Spike-Timing-Dependent Plasticity. <i>Neural Computation</i> , 2010, 22, 244-272.	1.3	8
399	Learning to see: patterned visual activity and the development of visual function. <i>Trends in Neurosciences</i> , 2010, 33, 183-192.	4.2	38
400	A Non-Markovian Random Walk Underlies a Stochastic Model of Spike-Timing-Dependent Plasticity. <i>Neural Computation</i> , 2010, 22, 1180-1230.	1.3	7
401	Dynamic Expression of Axon Guidance Cues Required for Optic Tract Development Is Controlled by Fibroblast Growth Factor Signaling. <i>Journal of Neuroscience</i> , 2010, 30, 685-693.	1.7	50
402	Neurophysiological and Computational Principles of Cortical Rhythms in Cognition. <i>Physiological Reviews</i> , 2010, 90, 1195-1268.	13.1	1,634
403	A history of spike-timing-dependent plasticity. <i>Frontiers in Synaptic Neuroscience</i> , 2011, 3, 4.	1.3	311
405	Timing-Dependent Septal Cholinergic Induction of Dynamic Hippocampal Synaptic Plasticity. <i>Neuron</i> , 2011, 71, 155-165.	3.8	251

#	ARTICLE	IF	CITATIONS
406	A Synaptic Strategy for Consolidation of Convergent Visuotopic Maps. <i>Neuron</i> , 2011, 71, 710-724.	3.8	22
408	On Spike-Timing-Dependent-Plasticity, Memristive Devices, and Building a Self-Learning Visual Cortex. <i>Frontiers in Neuroscience</i> , 2011, 5, 26.	1.4	364
409	A biophysically-based neuromorphic model of spike rate- and timing-dependent plasticity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, E1266-74.	3.3	155
410	Spiking neurons that keep the rhythm. <i>Journal of Computational Neuroscience</i> , 2011, 30, 589-605.	0.6	4
411	Experimental analysis and computational modeling of interburst intervals in spontaneous activity of cortical neuronal culture. <i>Biological Cybernetics</i> , 2011, 105, 197-210.	0.6	18
412	A Context-Sensitive Mechanism in Hippocampal CA1 Networks. <i>Bulletin of Mathematical Biology</i> , 2011, 73, 417-435.	0.9	8
413	GABA inhibition modulates NMDA-R mediated spike timing dependent plasticity (STDP) in a biophysical model. <i>Neural Networks</i> , 2011, 24, 29-42.	3.3	23
414	A tutorial on computational cognitive neuroscience: Modeling the neurodynamics of cognition. <i>Journal of Mathematical Psychology</i> , 2011, 55, 273-289.	1.0	46
415	Spike-Timing-Dependent Plasticity and Reliability Optimization: The Role of Neuron Dynamics. <i>Neural Computation</i> , 2011, 23, 1768-1789.	1.3	8
416	Perturbation theory for stochastic learning dynamics. , 2011, , .		1
417	Elman-Style Process Neural Network with Application to Aircraft Engine Health Condition Monitoring. <i>Lecture Notes in Computer Science</i> , 2011, , 484-494.	1.0	1
418	Postinduction Requirement of NMDA Receptor Activation for Late-Phase Long-Term Potentiation of Developing Retinotectal Synapses <i>In Vivo</i> . <i>Journal of Neuroscience</i> , 2011, 31, 3328-3335.	1.7	13
419	Analysis of Development of Direction Selectivity in Retinotectum by a Neural Circuit Model with Spike Timing-Dependent Plasticity. <i>Journal of Neuroscience</i> , 2011, 31, 1516-1527.	1.7	16
420	Visual Experience-Dependent Maturation of Correlated Neuronal Activity Patterns in a Developing Visual System. <i>Journal of Neuroscience</i> , 2011, 31, 8025-8036.	1.7	26
421	Interregional synaptic competition in neurons with multiple STDP-inducing signals. <i>Journal of Neurophysiology</i> , 2011, 105, 989-998.	0.9	23
422	Silicon synapses self-correct for both mismatch and design inhomogeneities. <i>Electronics Letters</i> , 2012, 48, 360.	0.5	4
423	Effect of synaptic plasticity on the structure and dynamics of disordered networks of coupled neurons. <i>Physical Review E</i> , 2012, 86, 011925.	0.8	24
424	GABAergic Transmission and Chloride Equilibrium Potential Are Not Modulated by Pyruvate in the Developing Optic Tectum of <i>Xenopus laevis</i> Tadpoles. <i>PLoS ONE</i> , 2012, 7, e34446.	1.1	21

#	ARTICLE	IF	CITATIONS
425	Spike-Timing-Dependent Plasticity With Weight Dependence Evoked From Physical Constraints. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 385-398.	2.7	40
426	Nicotinic ACh Receptors in the Hippocampus: Role in Excitability and Plasticity. Nicotine and Tobacco Research, 2012, 14, 1249-1257.	1.4	56
427	Dynamical Mean-Field Equations for a Neural Network with Spike Timing Dependent Plasticity. Journal of Statistical Physics, 2012, 148, 677-686.	0.5	1
428	Approximating distributions in stochastic learning. Neural Networks, 2012, 32, 219-228.	3.3	1
429	Real-time human-robot interaction underlying neurobotic trust and intent recognition. Neural Networks, 2012, 32, 130-137.	3.3	4
430	Effects of theta burst stimulation on motor cortex excitability in Parkinson's disease. Clinical Neurophysiology, 2012, 123, 815-821.	0.7	64
431	Cholinergic Coordination of Presynaptic and Postsynaptic Activity Induces Timing-Dependent Hippocampal Synaptic Plasticity. Journal of Neuroscience, 2012, 32, 12337-12348.	1.7	77
432	The Spike-Timing Dependence of Plasticity. Neuron, 2012, 75, 556-571.	3.8	732
433	Stochastic Perturbation Methods for Spike-Timing-Dependent Plasticity. Neural Computation, 2012, 24, 1109-1146.	1.3	8
434	Bursts shape the NMDA-R mediated spike timing dependent plasticity curve: role of burst interspike interval and GABAergic inhibition. Cognitive Neurodynamics, 2012, 6, 421-441.	2.3	10
435	Functional Clustering Drives Encoding Improvement in a Developing Brain Network during Awake Visual Learning. PLoS Biology, 2012, 10, e1001236.	2.6	18
436	Target selection. , 2012, , 143-169.		0
437	Nanoelectronic Programmable Synapses Based on Phase Change Materials for Brain-Inspired Computing. Nano Letters, 2012, 12, 2179-2186.	4.5	1,036
438	The <i>Xenopus</i> retinal ganglion cell as a model neuron to study the establishment of neuronal connectivity. Developmental Neurobiology, 2012, 72, 520-536.	1.5	14
439	Visuospatial information in the retinotectal system of xenopus before correct image formation by the developing eye. Developmental Neurobiology, 2012, 72, 507-519.	1.5	4
440	Synaptic Learning and Memory Functions Achieved Using Oxygen Ion Migration/Diffusion in an Amorphous InGaZnO Memristor. Advanced Functional Materials, 2012, 22, 2759-2765.	7.8	627
441	Stimulus Timing-Dependent Plasticity in High-Level Vision. Current Biology, 2012, 22, 332-337.	1.8	32
442	Spontaneous organization of the cortical structure through endogenous neural firing and gap junction transmission. Neural Networks, 2012, 31, 46-52.	3.3	10

#	ARTICLE	IF	CITATIONS
443	Interaction of inhibition and triplets of excitatory spikes modulates the NMDA-mediated synaptic plasticity in a computational model of spike timing-dependent plasticity. <i>Hippocampus</i> , 2013, 23, 75-86.	0.9	6
444	New modalities of brain stimulation for stroke rehabilitation. <i>Experimental Brain Research</i> , 2013, 224, 335-358.	0.7	94
445	N-methyl-D-aspartate receptors strongly regulate postsynaptic activity levels during optic nerve regeneration. <i>Journal of Neuroscience Research</i> , 2013, 91, 1263-1279.	1.3	3
446	Adaptive and Natural Computing Algorithms. <i>Lecture Notes in Computer Science</i> , 2013, , .	1.0	4
447	Nanoscale electronic synapses using phase change devices. <i>ACM Journal on Emerging Technologies in Computing Systems</i> , 2013, 9, 1-20.	1.8	123
448	Repeated exposure to a tone transiently alters spectral tuning bandwidth of neurons in the central nucleus of inferior colliculus in juvenile rats. <i>Neuroscience</i> , 2013, 230, 114-120.	1.1	14
449	Aeroengine Exhausted Gas Temperature Prediction Using Process Extreme Learning Machine. <i>Applied Mechanics and Materials</i> , 0, 423-426, 2355-2362.	0.2	2
450	Synaptic electronics: materials, devices and applications. <i>Nanotechnology</i> , 2013, 24, 382001.	1.3	1,012
451	Essential role of postsynaptic NMDA receptors in developmental refinement of excitatory synapses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 1095-1100.	3.3	44
452	Cholinergic receptors: functional role of nicotinic ACh receptors in brain circuits and disease. <i>Pflugers Archiv European Journal of Physiology</i> , 2013, 465, 441-450.	1.3	69
453	Activity-Dependent Neural Plasticity from Bench to Bedside. <i>Neuron</i> , 2013, 80, 729-741.	3.8	158
454	Computational capability of liquid state machines with spike-timing-dependent plasticity. <i>Neurocomputing</i> , 2013, 122, 324-329.	3.5	31
455	A Carbon Nanotube Synapse with Dynamic Logic and Learning. <i>Advanced Materials</i> , 2013, 25, 1693-1698.	11.1	258
456	Dendrites: A Key Structural Element of Neurons. , 2013, , 179-217.		3
457	Spike Timing-Dependent Plasticity. , 2013, , 155-181.		7
458	Mechanisms Underlying the Rules for Associative Plasticity at Adult Human Neocortical Synapses. <i>Journal of Neuroscience</i> , 2013, 33, 17197-17208.	1.7	104
459	Cluster Synchronization in a Chemical Oscillator Network with Adaptive Coupling. <i>Journal of the Physical Society of Japan</i> , 2013, 82, 034005.	0.7	7
460	Global Hyper-synchronous Spontaneous Activity in the Developing Optic Tectum. <i>Scientific Reports</i> , 2013, 3, 1552.	1.6	3

#	ARTICLE	IF	CITATIONS
461	Reward-based learning for virtual neurorobotics through emotional speech processing. <i>Frontiers in Neurobotics</i> , 2013, 7, 8.	1.6	2
462	Theta-specific susceptibility in a model of adaptive synaptic plasticity. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 170.	1.2	9
463	Supervised Learning with Complex Spikes and Spike-Timing-Dependent Plasticity. <i>PLoS ONE</i> , 2014, 9, e99635.	1.1	1
464	A Nonlinear Cable Framework for Bidirectional Synaptic Plasticity. <i>PLoS ONE</i> , 2014, 9, e102601.	1.1	1
465	Input transformation by dendritic spines of pyramidal neurons. <i>Frontiers in Neuroanatomy</i> , 2014, 8, 141.	0.9	52
466	Excitatory and inhibitory STDP jointly tune feedforward neural circuits to selectively propagate correlated spiking activity. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 53.	1.2	40
467	Associative learning of classical conditioning as an emergent property of spatially extended spiking neural circuits with synaptic plasticity. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 79.	1.2	21
468	Limits to high-speed simulations of spiking neural networks using general-purpose computers. <i>Frontiers in Neuroinformatics</i> , 2014, 8, 76.	1.3	55
469	A unifying theory of synaptic long-term plasticity based on a sparse distribution of synaptic strength. <i>Frontiers in Synaptic Neuroscience</i> , 2014, 6, 3.	1.3	8
472	Plasticity in visual connections: retinal ganglion cell axonal development and regeneration. , 0, , 114-124.		0
473	Suppression and facilitation of auditory neurons through coordinated acoustic and midbrain stimulation: investigating a deep brain stimulator for tinnitus. <i>Journal of Neural Engineering</i> , 2014, 11, 066001.	1.8	21
474	Long-term depression at distinct glutamatergic synapses in the basal ganglia. <i>Reviews in the Neurosciences</i> , 2014, 25, 741-54.	1.4	5
475	Spike-Timing-Dependent-Plasticity in Hybrid Memristive-CMOS Spiking Neuromorphic Systems. , 2014, , 353-377.		1
476	Limit cycle representation of spatial locations using self-organizing maps. , 2014, , .		2
477	Memristors and Memristive Systems. , 2014, , .		109
478	Distinct mechanisms of spike timing-dependent LTD at vertical and horizontal inputs onto L2/3 pyramidal neurons in mouse barrel cortex. <i>Physiological Reports</i> , 2014, 2, e00271.	0.7	53
479	Impaired Development and Competitive Refinement of the Cortical Frequency Map in Tumor Necrosis Factor- α -Deficient Mice. <i>Cerebral Cortex</i> , 2014, 24, 1956-1965.	1.6	16
480	Detecting Pairwise Correlations in Spike Trains: An Objective Comparison of Methods and Application to the Study of Retinal Waves. <i>Journal of Neuroscience</i> , 2014, 34, 14288-14303.	1.7	153

#	ARTICLE	IF	CITATIONS
481	Quantification of pairwise neuronal interactions: Going beyond the significance lines. <i>Journal of Neuroscience Methods</i> , 2014, 222, 147-155.	1.3	5
482	Computational modeling of neural plasticity for self-organization of neural networks. <i>BioSystems</i> , 2014, 125, 43-54.	0.9	25
483	Wiring the retinal circuits activated by light during early development. <i>Neural Development</i> , 2014, 9, 3.	1.1	23
484	Synaptic Plasticity. , 2014, , 533-561.		3
485	Inorganic proton conducting electrolyte coupled oxide-based dendritic transistors for synaptic electronics. <i>Nanoscale</i> , 2014, 6, 4491-4497.	2.8	60
486	Control of neuronal morphology and connectivity: Emerging developmental roles for gap junctional proteins. <i>FEBS Letters</i> , 2014, 588, 1470-1479.	1.3	14
487	Balanced Interhemispheric Cortical Activity Is Required for Correct Targeting of the Corpus Callosum. <i>Neuron</i> , 2014, 82, 1289-1298.	3.8	106
488	Effects of spike-time-dependent plasticity on the stochastic resonance of small-world neuronal networks. <i>Chaos</i> , 2014, 24, 033125.	1.0	9
489	On learning time delays between the spikes from different input neurons in a biophysical model of a pyramidal neuron. <i>BioSystems</i> , 2015, 136, 80-89.	0.9	1
490	Bimodal stimulus timing-dependent plasticity in primary auditory cortex is altered after noise exposure with and without tinnitus. <i>Journal of Neurophysiology</i> , 2015, 114, 3064-3075.	0.9	51
491	Self-organization of synchronous activity propagation in neuronal networks driven by local excitation. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 69.	1.2	23
492	Plasticity in memristive devices for spiking neural networks. <i>Frontiers in Neuroscience</i> , 2015, 9, 51.	1.4	188
493	Refinement and Pattern Formation in Neural Circuits by the Interaction of Traveling Waves with Spike-Timing Dependent Plasticity. <i>PLoS Computational Biology</i> , 2015, 11, e1004422.	1.5	16
494	Improved Long-Term Imaging of Embryos with Genetically Encoded $\hat{\pm}$ -Bungarotoxin. <i>PLoS ONE</i> , 2015, 10, e0134005.	1.1	53
495	Enabling an Integrated Rate-temporal Learning Scheme on Memristor. <i>Scientific Reports</i> , 2014, 4, 4755.	1.6	60
496	The horizontal brain slice preparation: a novel approach for visualizing and recording from all layers of the tadpole tectum. <i>Journal of Neurophysiology</i> , 2015, 113, 400-407.	0.9	6
497	Exploiting pallidal plasticity for stimulation in Parkinson's disease. <i>Journal of Neural Engineering</i> , 2015, 12, 026005.	1.8	27
498	Prediction of Power Generation in China Using Process Neural Network. <i>International Journal of U- and E- Service, Science and Technology</i> , 2015, 8, 141-146.	0.1	0

#	ARTICLE	IF	CITATIONS
499	Plasticity of Cortical Excitatory-Inhibitory Balance. <i>Annual Review of Neuroscience</i> , 2015, 38, 195-219.	5.0	355
500	Coherence Resonance of Small World Networks with Adaptive Coupling. <i>Journal of the Physical Society of Japan</i> , 2015, 84, 064003.	0.7	0
501	Sensory-Evoked Spiking Behavior Emerges via an Experience-Dependent Plasticity Mechanism. <i>Neuron</i> , 2015, 87, 1050-1062.	3.8	28
502	Formula for Unsilencing Plasticity: Spike with GABA. <i>Neuron</i> , 2015, 87, 915-917.	3.8	1
503	Self-organizing maps based on limit cycle attractors. <i>Neural Networks</i> , 2015, 63, 208-222.	3.3	14
504	Spike coherence and synchronization on Newman-Watts small-world neuronal networks modulated by spike-timing-dependent plasticity. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2015, 419, 307-317.	1.2	21
505	An Evolutionarily Conserved Mechanism for Activity-Dependent Visual Circuit Development. <i>Frontiers in Neural Circuits</i> , 2016, 10, 79.	1.4	45
506	Emergence of Selectivity to Looming Stimuli in a Spiking Network Model of the Optic Tectum. <i>Frontiers in Neural Circuits</i> , 2016, 10, 95.	1.4	7
507	Neural network regulation driven by autonomous neural firings. <i>Journal of the Korean Physical Society</i> , 2016, 69, 107-112.	0.3	1
508	Plasticity-Driven Self-Organization under Topological Constraints Accounts for Non-random Features of Cortical Synaptic Wiring. <i>PLoS Computational Biology</i> , 2016, 12, e1004759.	1.5	52
509	A Review of Impaired Neuroplasticity in Schizophrenia Investigated with Non-invasive Brain Stimulation. <i>Frontiers in Psychiatry</i> , 2016, 7, 45.	1.3	22
510	Mimicking of pulse shape-dependent learning rules with a quantum dot memristor. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	6
511	What is memory? The present state of the engram. <i>BMC Biology</i> , 2016, 14, 40.	1.7	277
512	Early development and function of the <i>Xenopus</i> tadpole retinotectal circuit. <i>Current Opinion in Neurobiology</i> , 2016, 41, 17-23.	2.0	16
513	Empowering Reentrant Projections from V5 to V1 Boosts Sensitivity to Motion. <i>Current Biology</i> , 2016, 26, 2155-2160.	1.8	63
514	Electro-Photo-Sensitive Memristor for Neuromorphic and Arithmetic Computing. <i>Physical Review Applied</i> , 2016, 5, .	1.5	37
515	Long-Term Synaptic Plasticity Emulated in Modified Graphene Oxide Electrolyte Gated IZO-Based Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 30281-30286.	4.0	91
516	Dendritic Elaboration: Morphology and Chemistry. , 2016, , 225-264.		7

#	ARTICLE	IF	CITATIONS
517	A Review on Synergistic Learning. IEEE Access, 2016, 4, 119-134.	2.6	11
518	Integrating Evolutionary Game Theory into Mechanistic Genotype-Phenotype Mapping. Trends in Genetics, 2016, 32, 256-268.	2.9	44
519	Hebbian Spike-Timing Dependent Plasticity at the Cerebellar Input Stage. Journal of Neuroscience, 2017, 37, 2809-2823.	1.7	48
520	The temporal paradox of Hebbian learning and homeostatic plasticity. Current Opinion in Neurobiology, 2017, 43, 166-176.	2.0	138
521	On the research of time past: the hunt for the substrate of memory. Annals of the New York Academy of Sciences, 2017, 1396, 108-125.	1.8	39
522	Interaction and developmental activation of two neuroendocrine systems that regulate light-mediated skin pigmentation. Pigment Cell and Melanoma Research, 2017, 30, 413-423.	1.5	10
523	Associative learning with Y-shaped floating gate transistors operated in memristive modes. Applied Physics Letters, 2017, 110, .	1.5	7
524	Model Derived Spike Time Dependent Plasticity. Lecture Notes in Computer Science, 2017, , 345-353.	1.0	0
525	Left-right asymmetry of the Maxwell spot centroids in adults without and with dyslexia. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20171380.	1.2	19
526	Reversible optical switching memristors with tunable STDP synaptic plasticity: a route to hierarchical control in artificial intelligent systems. Nanoscale, 2017, 9, 17091-17098.	2.8	62
527	Calculation of precise firing statistics in a neural network model. Journal of the Korean Physical Society, 2017, 71, 222-230.	0.3	9
528	The associative brain at work: Evidence from paired associative stimulation studies in humans. Clinical Neurophysiology, 2017, 128, 2140-2164.	0.7	120
529	Memristive neural network for on-line learning and tracking with brain-inspired spike timing dependent plasticity. Scientific Reports, 2017, 7, 5288.	1.6	140
530	Network Supervision of Adult Experience and Learning Dependent Sensory Cortical Plasticity. , 2017, 7, 977-1008.		4
531	Rules for Shaping Neural Connections in the Developing Brain. Frontiers in Neural Circuits, 2016, 10, 111.	1.4	46
532	Modulating STDP Balance Impacts the Dendritic Mosaic. Frontiers in Computational Neuroscience, 2017, 11, 42.	1.2	2
533	The NEST Dry-Run Mode: Efficient Dynamic Analysis of Neuronal Network Simulation Code. Frontiers in Neuroinformatics, 2017, 11, 40.	1.3	15
534	The Role of Neuromodulators in Cortical Plasticity. A Computational Perspective. Frontiers in Synaptic Neuroscience, 2016, 8, 38.	1.3	24

#	ARTICLE	IF	CITATIONS
535	Evaluating online-learning in memristive neuromorphic circuits. , 2017, , .		2
536	Alterations of Glutamate and \hat{I}^3 -Aminobutyric Acid Expressions in Normal and Myopic Eye Development in Guinea Pigs. , 2017, 58, 1256.		15
537	Synaptic efficacy mosaics and the impact of morphology. , 2017, , .		0
538	Oxide-based RRAM materials for neuromorphic computing. Journal of Materials Science, 2018, 53, 8720-8746.	1.7	189
539	Effect of spike-timing-dependent plasticity on stochastic burst synchronization in a scale-free neuronal network. Cognitive Neurodynamics, 2018, 12, 315-342.	2.3	34
540	Threshold Switching of Ag or Cu in Dielectrics: Materials, Mechanism, and Applications. Advanced Functional Materials, 2018, 28, 1704862.	7.8	239
542	Modeling of Memristive Devices for Neuromorphic Application. Lecture Notes in Networks and Systems, 2018, , 175-202.	0.5	1
543	Preparations and Protocols for Whole Cell Patch Clamp Recording of $\<em\>Xenopus laevis\</em\>$ Tectal Neurons. Journal of Visualized Experiments, 2018, , .	0.2	2
544	Stochastic spike synchronization in a small-world neural network with spike-timing-dependent plasticity. Neural Networks, 2018, 97, 92-106.	3.3	18
545	Simplified Compartmental Models of CA1 Pyramidal Cells of Theta-Modulated Inhibition Effects on Spike Timing-Dependent Plasticity. Springer Series in Computational Neuroscience, 2018, , 645-667.	0.3	0
546	Changes of Synaptic Structures Associated with Learning, Memory and Diseases. Brain Science Advances, 2018, 4, 99-117.	0.3	15
547	Improving liquid state machine in temporal pattern classification. , 2018, , .		4
548	Functional Evaluation of Olfactory Pathways in Living $\<em\>Xenopus\</em\>$ Tadpoles. Journal of Visualized Experiments, 2018, , .	0.2	2
549	White Matter Plasticity Keeps the Brain in Tune: Axons Conduct While Glia Wrap. Frontiers in Cellular Neuroscience, 2018, 12, 428.	1.8	49
550	Synaptic Behavior in Metal Oxide-Based Memristors. , 2018, , .		2
551	Restickable Oxide Neuromorphic Transistors with Spike- $\<em\>Timing\</em\>$ -Dependent Plasticity and Pavlovian Associative Learning Activities. Advanced Functional Materials, 2018, 28, 1804025.	7.8	139
552	Computational Cognitive Neuroscience. , 0, , 223-270.		0
553	On Practical Issues for Stochastic STDP Hardware With 1-bit Synaptic Weights. Frontiers in Neuroscience, 2018, 12, 665.	1.4	49

#	ARTICLE	IF	CITATIONS
554	Rhythmogenesis evolves as a consequence of long-term plasticity of inhibitory synapses. <i>Scientific Reports</i> , 2018, 8, 13050.	1.6	8
555	Transferable and Flexible Artificial Memristive Synapse Based on WO _x Schottky Junction on Arbitrary Substrates. <i>Advanced Electronic Materials</i> , 2018, 4, 1800373.	2.6	58
556	Eligibility Traces and Plasticity on Behavioral Time Scales: Experimental Support of NeoHebbian Three-Factor Learning Rules. <i>Frontiers in Neural Circuits</i> , 2018, 12, 53.	1.4	174
557	General differential Hebbian learning: Capturing temporal relations between events in neural networks and the brain. <i>PLoS Computational Biology</i> , 2018, 14, e1006227.	1.5	18
558	Planar Array-Antenna with Improved Radiation Characteristic Using Spiral Shaped DGS. , 2018, , .		1
559	Robustness of STDP to spike timing jitter. <i>Scientific Reports</i> , 2018, 8, 8139.	1.6	22
560	How Visual Body Perception Influences Somatosensory Plasticity. <i>Neural Plasticity</i> , 2018, 2018, 1-12.	1.0	6
561	Effect of inhibitory spike-timing-dependent plasticity on fast sparsely synchronized rhythms in a small-world neuronal network. <i>Neural Networks</i> , 2018, 106, 50-66.	3.3	23
562	Direct intertectal inputs are an integral component of the bilateral sensorimotor circuit for behavior in <i>Xenopus</i> tadpoles. <i>Journal of Neurophysiology</i> , 2018, 119, 1947-1961.	0.9	6
563	Electric-double-layer transistors for synaptic devices and neuromorphic systems. <i>Journal of Materials Chemistry C</i> , 2018, 6, 5336-5352.	2.7	170
564	Neuromodulation of Spike-Timing-Dependent Plasticity: Past, Present, and Future. <i>Neuron</i> , 2019, 103, 563-581.	3.8	145
565	A Systematic Review of Paired Associative Stimulation (PAS) to Modulate Lower Limb Corticomotor Excitability: Implications for Stimulation Parameter Selection and Experimental Design. <i>Frontiers in Neuroscience</i> , 2019, 13, 895.	1.4	20
566	Direct Electrical Stimulation in Electrocorticographic Brain-Computer Interfaces: Enabling Technologies for Input to Cortex. <i>Frontiers in Neuroscience</i> , 2019, 13, 804.	1.4	46
567	Phase distribution control of a population of oscillators. <i>Physica D: Nonlinear Phenomena</i> , 2019, 398, 115-129.	1.3	15
568	RRAM/memristor for computing. , 2019, , 539-583.		4
569	Percolation Threshold Enables Optical Resistive Memory Switching and Light-Tuneable Synaptic Learning in Segregated Nanocomposites. <i>Advanced Electronic Materials</i> , 2019, 5, 1900197.	2.6	24
570	Modeling framework and comparison of memristive devices and associated STDP learning windows for neuromorphic applications. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 393002.	1.3	10
571	Multicolor lineage tracing using in vivo time-lapse imaging reveals coordinated death of clonally related cells in the developing vertebrate brain. <i>Developmental Biology</i> , 2019, 453, 130-140.	0.9	16

#	ARTICLE	IF	CITATIONS
572	Multi-context blind source separation by error-gated Hebbian rule. Scientific Reports, 2019, 9, 7127.	1.6	6
573	Vacancy-Induced Synaptic Behavior in 2D WS ₂ Nanosheet-Based Memristor for Low-Power Neuromorphic Computing. Small, 2019, 15, e1901423.	5.2	252
574	A Hypothetical Model Concerning How Spike-Timing-Dependent Plasticity Contributes to Neural Circuit Formation and Initiation of the Critical Period in Barrel Cortex. Journal of Neuroscience, 2019, 39, 3784-3791.	1.7	11
575	<i>In vivo</i> sub-millisecond two-photon optogenetics with temporally focused patterned light. Journal of Neuroscience, 2019, 39, 1785-18.	1.7	53
576	Contrastive Hebbian learning with random feedback weights. Neural Networks, 2019, 114, 1-14.	3.3	19
577	UAV-Based Motion Target Detection and Tracking Method in Dynamic Scenes. , 2019, , .		0
578	Jazz Music Generation Based on Grammar and LSTM. , 2019, , .		5
580	Computing a Minimal Set of t-Spanning Motion Primitives for Lattice Planners. , 2019, , .		5
581	Construction of the bilateral system to connect micro and real worlds. , 2019, , .		0
582	Message from the WETSEB 2019 Workshop Organizers. , 2019, , .		0
584	Customers characterization: A pilot study for the incorporation of demand response programs. , 2019, , .		0
585	Target Selection. , 2019, , 159-193.		0
586	Performance Analysis for TCP Protocols over mm Wave in 5G Cellular Networks. , 2019, , .		3
587	Image Feature Description Based on Local Intensity Comparison. , 2019, , .		0
588	A New Construction Method of Regeneration Tree for Single Node Fault Repair Mechanism in Distributed Storage System. , 2019, , .		0
589	A 24.5-27 GHz GaN Power Amplifier MMIC with 4 W Maximum Saturation Output Power. , 2019, , .		4
590	3D-printable Perforated Dielectric Reflectarray in Ka-band. , 2019, , .		4
591	MiSE 2019 Organizing Committee. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
592	Framework Design and Software Implementation of Whole Process Risk Coordination Control for Power System. , 2019, , .		0
593	Design of Motor Observer with Iron Loss and Parameter Identification. , 2019, , .		1
594	An Approach for Team Composition in League of Legends using Genetic Algorithm. , 2019, , .		7
595	S-Band Circularly polarized Transceiver Antenna for LEO Satellites. , 2019, , .		2
596	A Novel Approach to Remove Ocular Artifact from EEG Signal. , 2019, , .		1
597	Making Augmented Reality Learning Media In Conformation of Alkane and Cycloalkane Concepts. , 2019, , .		2
598	A QoE-oriented Saliency-aware Approach for 360-degree Video Transmission. , 2019, , .		7
599	Cavity based THz photoconductive switch: towards high average power. , 2019, , .		0
601	ML-based Motion Estimation in Ultrasound Images Using Heavy-tailed Noise Distributions. , 2019, , .		0
602	A Study of Relationship Between $V-t$ and $\mathrm{Tan}\delta$ Characteristic on Epoxy Resin. , 2019, , .		1
603	Study on Transient Thermal Characteristics of Epoxy Resin in Saturable Reactor. , 2019, , .		0
604	FPGA Based Powerline and Baseline Interference Removal in Electrocardiogram Using Modified EWT-DWT Filtering. , 2019, , .		2
605	Refinement of Synaptic Connections. , 2019, , 269-309.		0
606	Multi-Function Tibetan Input Method on Android. , 2019, , .		1
607	Impact of Climate Change On Agricultural Production Decisions. , 2019, , .		0
608	New Tendencies in the Validation of Non-formal and Informal Learning with Some Examples of Validation in the ICT Sector. , 2019, , .		0
609	Distributed Downloading Strategy for Multi-Source Data Fusion in Edge-Enabled Vehicular Network : (Invited Paper). , 2019, , .		4
610	Aspect-Based Sentiment Analysis with Adjustments to Irrelevant Sentimental-Related Features. , 2019, , .		2

#	ARTICLE	IF	CITATIONS
611	BPMN Approach in Blockchain with Hyperledger Composer and Smart Contract: Reservation-Based Parking System. , 2019, , .		8
612	Physical Synthesis of Flow-Based Microfluidic Biochips Considering Distributed Channel Storage. , 2019, , .		20
613	Research on ZigBee wireless communication technology and its application. , 2019, , .		13
614	On the Use of Wide Channels in WiFi Networks. , 2019, , .		0
615	Asynchronous Subgradient-push Algorithm for Distributed optimization over Directed Graphs. , 2019, , .		0
616	RangeNet ++: Fast and Accurate LiDAR Semantic Segmentation. , 2019, , .		560
617	Combining Photometric Features and Relative Position to Detect and Track Target Person. , 2019, , .		1
618	Burst synchronization in a scale-free neuronal network with inhibitory spike-timing-dependent plasticity. Cognitive Neurodynamics, 2019, 13, 53-73.	2.3	20
619	Oxide Based EDL Transistors for Mimicking Synapse Functions. Springer Theses, 2019, , 55-75.	0.0	0
620	Learning Process in a Neural Network Model. Journal of the Korean Physical Society, 2019, 74, 63-72.	0.3	4
621	Silent synapse: A new player in visual cortex critical period plasticity. Pharmacological Research, 2019, 141, 586-590.	3.1	7
622	A comprehensive survey of recent developments in neuronal communication and computational neuroscience. Journal of Industrial Information Integration, 2019, 13, 40-54.	4.3	8
623	Shear wave velocity prediction using Elman artificial neural network. Carbonates and Evaporites, 2019, 34, 1281-1291.	0.4	31
624	The content of hippocampal "replay". Hippocampus, 2020, 30, 6-18.	0.9	105
625	Using EMG to deliver lumbar dynamic electrical stimulation to facilitate cortico-spinal excitability. Brain Stimulation, 2020, 13, 20-34.	0.7	21
626	Long-Lasting Somatic Modifications of Convergent Dendritic Inputs in Hippocampal Neurons. Cerebral Cortex, 2020, 30, 1436-1446.	1.6	1
627	Impact of Long Term Plasticity on Information Transmission Over Neuronal Networks. IEEE Transactions on Nanobioscience, 2020, 19, 25-34.	2.2	4
628	Neuromorphic Engineering for Hardware Computational Acceleration and Biomimetic Perception Motion Integration. Advanced Intelligent Systems, 2020, 2, 2000124.	3.3	17

#	ARTICLE	IF	CITATIONS
629	Response Theory of Spiking Neural Networks. Journal of the Korean Physical Society, 2020, 77, 168-176.	0.3	3
630	White matter and neurological disorders. Archives of Pharmacal Research, 2020, 43, 920-931.	2.7	21
631	Multicoding in neural information transfer suggested by mathematical analysis of the frequency-dependent synaptic plasticity in vivo. Scientific Reports, 2020, 10, 13974.	1.6	2
632	A spike-timing-dependent plasticity rule for dendritic spines. Nature Communications, 2020, 11, 4276.	5.8	43
633	Development of neuronal circuits: From synaptogenesis to synapse plasticity. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2020, 173, 43-53.	1.0	4
634	Hebbian and non-Hebbian timing-dependent plasticity in the hippocampal CA3 region. Hippocampus, 2020, 30, 1241-1256.	0.9	3
635	Emerging Materials for Neuromorphic Devices and Systems. IScience, 2020, 23, 101846.	1.9	66
636	Spike-Timing Dependent Plasticity Effect on the Temporal Patterning of Neural Synchronization. Frontiers in Computational Neuroscience, 2020, 14, 52.	1.2	10
637	The Path to and Impact of Disease Recognition with AI. IEEE Pulse, 2020, 11, 13-16.	0.1	2
638	Modeling the effects of sinusoidal stimulation and synaptic plasticity on linked neural oscillators. Chaos, 2020, 30, 033105.	1.0	7
639	A Walking Assistive Device of the Ankle Joint Motion and the Control Method According to the Emotion Condition. , 2020, , .		2
640	Ionic synergetically coupled electrolyte-gated transistors for neuromorphic engineering applications. , 2020, , 145-177.		1
641	Activity-driven synaptic stabilization. , 2020, , 305-356.		0
642	Activity: Molecular signaling to growth mechanisms. , 2020, , 357-418.		0
643	Multiplexing rhythmic information by spike timing dependent plasticity. PLoS Computational Biology, 2020, 16, e1008000.	1.5	8
644	Trust Based Secure Content Delivery in Vehicular Networks: A Bargaining Game Theoretical Approach. IEEE Transactions on Vehicular Technology, 2020, 69, 3267-3279.	3.9	22
645	Nonlinear Endmember Identification for Hyperspectral Imagery via Hyperpath-Based Simplex Growing and Fuzzy Assessment. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 351-366.	2.3	6
646	Effect of interpopulation spike-timing-dependent plasticity on synchronized rhythms in neuronal networks with inhibitory and excitatory populations. Cognitive Neurodynamics, 2020, 14, 535-567.	2.3	18

#	ARTICLE	IF	CITATIONS
647	Effective Correlates of Motor Imagery Performance based on Default Mode Network in Resting-State. , 2020, , .		3
648	A Lightweight Neural Network for Monocular View Generation With Occlusion Handling. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 1832-1844.	9.7	2
649	Evolution of Bioâ€Inspired Artificial Synapses: Materials, Structures, and Mechanisms. Small, 2021, 17, e2000041.	5.2	55
650	Muscarinic Regulation of Spike Timing Dependent Synaptic Plasticity in the Hippocampus. Neuroscience, 2021, 456, 50-59.	1.1	7
651	My Neighbour Hetero â€” deconstructing the mechanisms underlying heterosynaptic plasticity. Current Opinion in Neurobiology, 2021, 67, 106-114.	2.0	28
652	Memristive device with highly continuous conduction modulation and its underlying physical mechanism for electronic synapse application. Science China Materials, 2021, 64, 179-188.	3.5	5
653	Neuromorphic Low-Power Inference on Memristive Crossbars With On-Chip Offset Calibration. IEEE Access, 2021, 9, 38043-38061.	2.6	11
654	Investigating the Intervention Parameters of Endogenous Paired Associative Stimulation (ePAS). Brain Sciences, 2021, 11, 224.	1.1	3
655	Mimicking Neurotransmitter Activity and Realizing Algebraic Arithmetic on Flexible Protein-Gated Oxide Neuromorphic Transistors. ACS Applied Materials & Interfaces, 2021, 13, 7784-7791.	4.0	12
656	Phase Change Random Access Memory for Neuroâ€Inspired Computing. Advanced Electronic Materials, 2021, 7, 2001241.	2.6	29
657	Dopaminergic Neuromodulation of Spike Timing Dependent Plasticity in Mature Adult Rodent and Human Cortical Neurons. Frontiers in Cellular Neuroscience, 2021, 15, 668980.	1.8	6
659	Multistability in a star network of Kuramoto-type oscillators with synaptic plasticity. Scientific Reports, 2021, 11, 9840.	1.6	10
661	Supervised learning in a spiking neural network. Journal of the Korean Physical Society, 2021, 79, 328-335.	0.3	3
662	SyNC, a Computationally Extensive and Realistic Neural Net to Identify Relative Impacts of Synaptopathy Mechanisms on Glutamatergic Neurons and Their Networks in Autism and Complex Neurological Disorders. Frontiers in Cellular Neuroscience, 2021, 15, 674030.	1.8	1
663	Semi-Supervised Learning Combining Backpropagation and STDP: STDP Enhances Learning by Backpropagation with a Small Amount of Labeled Data in a Spiking Neural Network. Journal of the Physical Society of Japan, 2021, 90, 074802.	0.7	4
664	STDP and the distribution of preferred phases in the whisker system. PLoS Computational Biology, 2021, 17, e1009353.	1.5	0
665	Calcium and Spike Timing-Dependent Plasticity. Frontiers in Cellular Neuroscience, 2021, 15, 727336.	1.8	13
666	Spike-Timing-Dependent Plasticity With Activation-Dependent Scaling for Receptive Fields Development. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 5215-5228.	7.2	2

#	ARTICLE	IF	CITATIONS
667	Mapping the genetic architecture of developmental modularity in ornamental plants. <i>Ornamental Plant Research</i> , 2021, 1, 1-10.	0.2	1
668	RRAM-Based Neuromorphic Computing Systems. , 2021, , 383-414.		1
671	BCM-Type Synaptic Plasticity Model Using a Linear Summation of Calcium Elevations as a Sliding Threshold. <i>Lecture Notes in Computer Science</i> , 2006, , 19-29.	1.0	6
672	Functional Differences Between the Spatio-temporal Learning Rule (STLR) and Hebb Type (HEBB) in Single Pyramidal Cells in the Hippocampal CA1 Area. <i>Lecture Notes in Computer Science</i> , 2006, , 72-81.	1.0	2
673	A Phenomenological Calcium-Based Model of STDP. , 2010, , 571-591.		4
675	A Learning Algorithm for Synfire Chains. <i>Perspectives in Neural Computing</i> , 2001, , 23-32.	0.1	7
676	STDP Pattern Onset Learning Depends on Background Activity. <i>Advances in Experimental Medicine and Biology</i> , 2011, 718, 19-31.	0.8	3
677	Spiking Neural Computing in Memristive Neuromorphic Platforms. , 2019, , 691-728.		3
678	Emergent behaviours based on episodic encoding and familiarity driven retrieval. <i>Lecture Notes in Computer Science</i> , 2004, , 188-197.	1.0	2
679	Process Neurons. <i>Advanced Topics in Science and Technology in China</i> , 2009, , 43-52.	0.0	1
680	Structural Analysis on STDP Neural Networks Using Complex Network Theory. <i>Lecture Notes in Computer Science</i> , 2009, , 306-314.	1.0	4
682	What is Different with Spiking Neurons?. <i>Mathematical Modelling: Theory and Applications</i> , 2001, , 23-48.	0.2	26
683	Spike timing-dependent plasticity. , 2020, , 127-141.		4
684	Interlayer Hebbian plasticity induces first-order transition in multiplex networks. <i>New Journal of Physics</i> , 2020, 22, 122001.	1.2	17
685	What is a Neuronal Map, How Does It Arise, and What is it Good For?. , 2006, , 83-102.		4
692	Development and Plasticity of the Gustatory Portion of Nucleus of the Solitary Tract. <i>Frontiers in Neuroscience</i> , 2006, , 107-135.	0.0	4
693	Synaptic plasticity in the mormyrid electrosensory lobe. <i>Journal of Experimental Biology</i> , 1999, 202, 1339-1347.	0.8	47
694	Balancing Feed-Forward Excitation and Inhibition via Hebbian Inhibitory Synaptic Plasticity. <i>PLoS Computational Biology</i> , 2012, 8, e1002334.	1.5	83

#	ARTICLE	IF	CITATIONS
695	Oscillations via Spike-Timing Dependent Plasticity in a Feed-Forward Model. <i>PLoS Computational Biology</i> , 2016, 12, e1004878.	1.5	17
696	Learning and executing goal-directed choices by internally generated sequences in spiking neural circuits. <i>PLoS Computational Biology</i> , 2017, 13, e1005669.	1.5	3
697	The Effect of Slow Electrical Stimuli to Achieve Learning in Cultured Networks of Rat Cortical Neurons. <i>PLoS ONE</i> , 2010, 5, e8871.	1.1	77
698	Mechanisms of induction and maintenance of spike-timing dependent plasticity in biophysical synapse models. <i>Frontiers in Computational Neuroscience</i> , 2010, 4, .	1.2	111
699	Convergent Associative Motor Cortical Plasticity Induced by Conditional Somatosensory and Motor Reaction Afferents. <i>Frontiers in Human Neuroscience</i> , 2020, 14, 576171.	1.0	1
700	STDP and STDP variations with memristors for spiking neuromorphic learning systems. <i>Frontiers in Neuroscience</i> , 2013, 7, 2.	1.4	368
701	Mechanism of Synaptic Dysfunction and How This Disruption in IGF-1 homeostasis Leads to Neurodegenerative Diseases: A Theory. <i>Biology and Medicine (Aligarh)</i> , 2018, 10, .	0.3	1
702	Self-Organization and Association for Fine Spatio-Temporal Spike Sequences. <i>Transactions of the Institute of Systems Control and Information Engineers</i> , 2000, 13, 308-317.	0.1	2
703	Oxide-based memristive neuromorphic synaptic devices. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 168504.	0.2	11
704	A family of photoswitchable NMDA receptors. <i>ELife</i> , 2016, 5, .	2.8	73
705	An NMDA receptor-dependent mechanism for subcellular segregation of sensory inputs in the tadpole optic tectum. <i>ELife</i> , 2016, 5, .	2.8	9
706	Activity-dependent alteration of early myelin ensheathment in a developing sensory circuit. <i>Journal of Comparative Neurology</i> , 2022, 530, 871-885.	0.9	2
707	Chitosan-Based Flexible Memristors with Embedded Carbon Nanotubes for Neuromorphic Electronics. <i>Micromachines</i> , 2021, 12, 1259.	1.4	11
708	Sodium-calcium exchanger mediates sensory-evoked glial calcium transients in the developing retinotectal system. <i>Cell Reports</i> , 2021, 37, 109791.	2.9	9
709	Exploring Low Power and Ultrafast Memristor on p-Type van der Waals SnS. <i>Nano Letters</i> , 2021, 21, 8800-8807.	4.5	57
710	Spike Timing and Visual Cortical Plasticity. , 2003, , 255-267.		0
711	Development and Use- Dependent Modification of Synaptic Connections in the Visual Layers of the Rodent Superior Colliculus. , 2003, , .		2
712	Mechanisms Underlying Development of the Retinocollicular Pathway. , 2003, , .		0

#	ARTICLE	IF	CITATIONS
744	A Model for Synaptic Refinement in Visual Thalamus. , 2006, , 228-246.		0
745	Ca2+ Signaling in Dendritic Spines. , 2008, , 441-458.		0
746	Deterministic Coincidence Detection and Adaptation Via Delayed Inputs. Lecture Notes in Computer Science, 2008, , 453-461.	1.0	1
749	Tetrode Recording in the Visual System Using Multichannel Glass Electrodes. Cold Spring Harbor Protocols, 2021, 2021, pdb.prot107086.	0.2	0
750	Tetrode Recording in the <i>Xenopus laevis</i> Visual System Using Multichannel Glass Electrodes. Cold Spring Harbor Protocols, 2021, 2021, pdb.prot107086.	0.2	1
751	Mechanisms of Plasticity in Subcortical Visual Areas. Cells, 2021, 10, 3162.	1.8	11
752	Early Development of the GABAergic System and the Associated Risks of Neonatal Anesthesia. International Journal of Molecular Sciences, 2021, 22, 12951.	1.8	12
753	Brain is modulated by neuronal plasticity during postnatal development. Journal of Physiological Sciences, 2021, 71, 34.	0.9	12
754	Numerical Simulation: Fluctuation in Background Synaptic Activity Regulates Synaptic Plasticity. Frontiers in Systems Neuroscience, 2021, 15, 771661.	1.2	0
755	Mathematization of nature: how it is done. Biological Cybernetics, 2021, 115, 655-664.	0.6	2
756	New treatment for amblyopia based on rules of synaptic plasticity: a randomized clinical trial. Science China Life Sciences, 2022, 65, 451-465.	2.3	18
757	Topographic map formation and the effects of NMDA receptor blockade in the developing visual system. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	11
758	A Hebbian Approach to Non-Spatial Prelinguistic Reasoning. Brain Sciences, 2022, 12, 281.	1.1	1
759	A bottom-up reward pathway mediated by somatostatin neurons in the medial septum complex underlying appetitive learning. Nature Communications, 2022, 13, 1194.	5.8	12
764	Hebbian plasticity rules abrupt desynchronization in pure simplicial complexes. New Journal of Physics, 2022, 24, 052002.	1.2	18
766	Ion-Movement-Based Synaptic Device for Brain-Inspired Computing. Nanomaterials, 2022, 12, 1728.	1.9	4
769	Self-organization of in vitro neuronal assemblies drives to complex network topology. ELife, 0, 11, .	2.8	19
770	First-order route to antiphase clustering in adaptive simplicial complexes. Physical Review E, 2022, 105, .	0.8	18

#	ARTICLE	IF	CITATIONS
771	Optimal Resonances in Multiplex Neural Networks Driven by an STDP Learning Rule. <i>Frontiers in Physics</i> , 0, 10, .	1.0	4
772	Immune-Triggered Forms of Plasticity Across Brain Regions. <i>Frontiers in Cellular Neuroscience</i> , 0, 16, .	1.8	4
773	A Guide for the Multiplexed: The Development of Visual Feature Maps in the Brain. <i>Neuroscience</i> , 2023, 508, 62-75.	1.1	2
774	Spike-timing-dependent plasticity enhances chaotic resonance in small-world network. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 606, 128069.	1.2	8
775	Pathway and Directional Specificity of Hebbian Plasticity in the Cortical Visual Motion Processing Network. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
776	Spatiotemporal Effects of Synaptic Current. <i>NeuroMethods</i> , 2022, , 79-89.	0.2	0
777	Milkâ€“Ta2O5 Hybrid Memristors with Crossbar Array Structure for Bio-Organic Neuromorphic Chip Applications. <i>Nanomaterials</i> , 2022, 12, 2978.	1.9	3
778	Volitional Generation of Reproducible, Efficient Temporal Patterns. <i>Brain Sciences</i> , 2022, 12, 1269.	1.1	1
779	Epigenetic regulation of GABAergic differentiation in the developing brain. <i>Frontiers in Cellular Neuroscience</i> , 0, 16, .	1.8	3
781	Dendritic Elaboration: Morphology and Chemistry. , 2022, , 407-446.		0
782	Oligodendroglia are emerging players in several forms of learning and memory. <i>Communications Biology</i> , 2022, 5, .	2.0	6
784	Plasticity of Orientation Processing in Adult Visual Cortex. , 2003, , 1654-1664.		6
785	Interplay of different synchronization modes and synaptic plasticity in a system of class I neurons. <i>Scientific Reports</i> , 2022, 12, .	1.6	1
786	Activity-dependent Organization of Topographic Neural Circuits. <i>Neuroscience</i> , 2022, , .	1.1	2
787	Electro-optical synaptic characteristics of ferroelectric liquid crystals for artificial intelligence. <i>Applied Optics</i> , 2023, 62, 914.	0.9	2
788	Coherence resonance and stochastic synchronization in a small-world neural network: an interplay in the presence of spike-timing-dependent plasticity. <i>Nonlinear Dynamics</i> , 2023, 111, 7789-7805.	2.7	5
789	Defect-induced Analogue Resistive Switching Behavior in FeO_x-based Memristor and Synaptic Paired-pulse Facilitation Feature. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2023, 38, 437.	0.6	0
790	Improving the linearity of synaptic plasticity of single-walled carbon nanotube field-effect transistors via CdSe quantum dots decoration. <i>Nanotechnology</i> , 2023, 34, 175205.	1.3	1

#	ARTICLE	IF	CITATIONS
791	The synaptic basis of activity-dependent eye-specific competition. Cell Reports, 2023, 42, 112085.	2.9	2
792	Synapse with versatility based on the Pt /LaMnO ₃ /Pt heterojunction. Journal Physics D: Applied Physics, 2023, 56, 145102.	1.3	0
794	Spike-timing-dependent plasticity alters electrosensory neuron synaptic strength <i>in vitro</i> , but does not consistently predict changes in sensory tuning <i>in vivo</i> . Journal of Neurophysiology, 0, , .	0.9	0
798	Multimodal methods to help interpret resting-state fMRI. , 2023, , 207-235.		1
800	Fabrication and Statistical Analysis of Large-Scale ZnO NW Based Synaptic Transistors. , 2023, , .		0
804	Learning to Classify Faster Using Spiking Neural Networks. , 2023, , .		0
813	Shared Intentionality Before Birth: Emulating a Model of Mother-Fetus Communication for Developing Human-Machine Systems. Lecture Notes in Networks and Systems, 2024, , 56-69.	0.5	0