Amitabha Bose

List of Publications by Year
in descending order

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56	800	516561	580701
papers	citations	16 h-index	25 g-index

62	62	62	622
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A temporal mechanism for generating the phase precession of hippocampal place cells. Journal of Computational Neuroscience, 2000, 9, 5-30.	0.6	71
2	Functional reorganization in thalamocortical networks: Transition between spindling and delta sleep rhythms. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 15417-15422.	3.3	64
3	Reentrainment of the circadian pacemaker during jet lag: East-west asymmetry and the effects of north-south travel. Journal of Theoretical Biology, 2018, 437, 261-285.	0.8	51
4	Contribution of Synaptic Depression to Phase Maintenance in a Model Rhythmic Network. Journal of Neurophysiology, 2003, 90, 3513-3528.	0.9	50
5	A Mathematical Model towards Understanding the Mechanism of Neuronal Regulation of Wake-NREMS-REMS States. PLoS ONE, 2012, 7, e42059.	1.1	46
6	Bistable Oscillations Arising from Synaptic Depression. SIAM Journal on Applied Mathematics, 2001, 62, 706-727.	0.8	36
7	Phase precession and phase-locking of hippocampal pyramidal cells. Hippocampus, 2001, 11, 204-215.	0.9	33
8	Neural Mechanisms for Generating Rate and Temporal Codes in Model CA3 Pyramidal Cells. Journal of Neurophysiology, 2001, 85, 2432-2445.	0.9	32
9	Almost-synchronous solutions for mutually coupled excitatory neurons. Physica D: Nonlinear Phenomena, 2000, 140, 69-94.	1.3	31
10	The Activity Phase of Postsynaptic Neurons in a Simplified Rhythmic Network. Journal of Computational Neuroscience, 2004, 17, 245-261.	0.6	24
11	Role of synaptic delay in organizing the behavior of networks of self-inhibiting neurons. Physical Review E, 2001, 63, 021908.	0.8	23
12	Entrainment Maps. Journal of Biological Rhythms, 2016, 31, 598-616.	1.4	23
13	The role of linear and voltage-dependent ionic currents in the generation of slow wave oscillations. Journal of Computational Neuroscience, 2014, 37, 229-242.	0.6	20
14	Capturing the bursting dynamics of a two-cell inhibitory network using a one-dimensional map. Journal of Computational Neuroscience, 2007, 23, 169-187.	0.6	19
15	Maintaining phase of the crustacean tri-phasic pyloric rhythm. Journal of Mathematical Biology, 2008, 57, 161-181.	0.8	19
16	Multistability of clustered states in a globally inhibitory network. Physica D: Nonlinear Phenomena, 2009, 238, 253-263.	1.3	19
17	A balance of outward and linear inward ionic currents is required for generation of slow-wave oscillations. Journal of Neurophysiology, 2017, 118, 1092-1104.	0.9	19
18	Combining synaptic and cellular resonance in a feed-forward neuronal network. Neurocomputing, 2007, 70, 2041-2045.	3.5	17

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19	A neuromechanistic model for rhythmic beat generation. PLoS Computational Biology, 2019, 15, e1006450.	1.5	15
20	Stability of localized structures in non-local reaction-diffusion equations. Methods and Applications of Analysis, 1998, 5, 351-366.	0.1	15
21	Symmetric and Antisymmetric Pulses in Parallel Coupled Nerve Fibres. SIAM Journal on Applied Mathematics, 1995, 55, 1650-1674.	0.8	14
22	Two-oscillator model of ventilatory rhythmogenesis in the frog. Neurocomputing, 2005, 65-66, 751-757.	3.5	12
23	A Geometric Approach to Singularly Perturbed Nonlocal Reaction-Diffusion Equations. SIAM Journal on Mathematical Analysis, 2000, 31, 431-454.	0.9	11
24	The Influence of the A-Current on the Dynamics of an Oscillator-Follower Inhibitory Network. SIAM Journal on Applied Dynamical Systems, 2009, 8, 1564-1590.	0.7	11
25	Co-existent activity patterns in inhibitory neuronal networks with short-term synaptic depression. Journal of Theoretical Biology, 2011, 272, 42-54.	0.8	10
26	Localized activity patterns in excitatory neuronal networks. Network: Computation in Neural Systems, 2004, 15, 133-158.	2.2	10
27	The Effects of Varying the Timing of Inputs on a Neural Oscillator. SIAM Journal on Applied Dynamical Systems, 2006, 5, 108-139.	0.7	9
28	Effects of Synaptic Plasticity on Phase and Period Locking in a Network of Two Oscillatory Neurons. Journal of Mathematical Neuroscience, 2014, 4, 8.	2.4	9
29	The geometry of neuronal recruitment. Physica D: Nonlinear Phenomena, 2006, 221, 37-57.	1.3	8
30	Excitable Nodes on Random Graphs: Relating Dynamics to Network Structure. SIAM Journal on Applied Dynamical Systems, 2011, 10, 987-1012.	0.7	7
31	Phase-locking and bistability in neuronal networks with synaptic depression. Physica D: Nonlinear Phenomena, 2018, 364, 8-21.	1.3	7
32	Short-term synaptic dynamics control the activity phase of neurons in an oscillatory network. ELife, 2019, 8, .	2.8	7
33	Large amplitude solutions of spatially non-homogeneous non-local reaction diffusion equations. Methods and Applications of Analysis, 2000, 7, 295-312.	0.1	7
34	Predicting the activity phase of a follower neuron with A-current in an inhibitory network. Biological Cybernetics, 2008, 99, 171-184.	0.6	6
35	Entrainment Dynamics of Forced Hierarchical Circadian Systems Revealed by 2-Dimensional Maps. SIAM Journal on Applied Dynamical Systems, 2020, 19, 2135-2161.	0.7	6
36	Synchrony and frequency regulation by synaptic delay in networks of self-inhibiting neurons. Neurocomputing, 2001, 38-40, 505-513.	3.5	5

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37	Beyond the limits of circadian entrainment: Non-24-h sleep-wake disorder, shift work, and social jet lag. Journal of Theoretical Biology, 2022, 545, 111148.	0.8	5
38	The role of electrical coupling in generating and modulating oscillations in a neuronal network. Mathematical Biosciences, 2016, 278, 11-21.	0.9	4
39	BURSTING IN 2-COMPARTMENT NEURONS: A CASE STUDY OF THE PINSKY-RINZEL MODEL. , 2005, , 123-144.		3
40	A one-dimensional map to study multi-seasonal coffee infestation by the coffee berry borer. Mathematical Biosciences, 2021, 333, 108530.	0.9	3
41	A biophysical counting mechanism for keeping time. Biological Cybernetics, 2022, 116, 205-218.	0.6	3
42	Regulating firing rate of networks of pyramidal cells. Neurocomputing, 2001, 38-40, 497-504.	3.5	2
43	Localized activity patterns in excitatory neuronal networks. Network: Computation in Neural Systems, 2004, 15, 133-58.	2.2	2
44	Hippocampal place cells and the generation of a temporal code. Neurocomputing, 2000, 32-33, 225-234.	3.5	1
45	Control of network output by synaptic depression. Neurocomputing, 2001, 38-40, 781-787.	3.5	1
46	Transitions between different synchronous firing modes using synaptic depression. Neurocomputing, 2002, 44-46, 61-67.	3.5	1
47	The effect of modulatory neuronal input on gastric mill frequency. Neurocomputing, 2005, 65-66, 623-631.	3.5	1
48	Collective dynamics in heterogeneous networks of neuronal cellular automata. Physica A: Statistical Mechanics and Its Applications, 2017, 487, 111-124.	1.2	1
49	Order-indeterminant event-based maps for learning a beat. Chaos, 2020, 30, 083138.	1.0	1
50	Multistability Arising from Synaptic Dynamics. , 2014, , 1-11.		1
51	Bifurcations Dynamics of Single Neurons and Small Networks. , 2014, , 1-10.		1
52	Maintaining phase of the tri-phasic crab pyloric rhythm. BMC Neuroscience, 2007, 8, .	0.8	0
53	Using feed-forward networks to infer the activity of feed-back neuronal networks. BMC Neuroscience, 2010, 11, .	0.8	0
54	Strategies to Maximize Burst Lengths in Rhythmic Anti-Phase Activity of Networks with Reciprocal Inhibition. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1540004.	0.7	0

#	Article	IF	Citations
55	Multistability Arising from Synaptic Dynamics. , 2022, , 2109-2117.		0
56	Bifurcations Dynamics of Single Neurons and Small Networks. , 2022, , 443-451.		0