Victor Matveev

List of Publications by Year in descending order

36 papers	913 citations	471061 17 h-index	525886 27 g-index
38 all docs	38 docs citations	38 times ranked	840 citing authors

#	Article	IF	Citations
1	Implications of All-or-None Synaptic Transmission and Short-Term Depression beyond Vesicle Depletion: A Computational Study. Journal of Neuroscience, 2000, 20, 1575-1588.	1.7	96
2	Facilitation through Buffer Saturation: Constraints on Endogenous Buffering Properties. Biophysical Journal, 2004, 86, 2691-2709.	0.2	94
3	N-type Ca2+ channels carry the largest current: implications for nanodomains and transmitter release. Nature Neuroscience, 2010, 13, 1348-1350.	7.1	93
4	New and Corrected Simulations of Synaptic Facilitation. Biophysical Journal, 2002, 83, 1368-1373.	0.2	83
5	Ca2+ channel clustering with insulin-containing granules is disturbed in type 2 diabetes. Journal of Clinical Investigation, 2017, 127, 2353-2364.	3.9	70
6	Calcium cooperativity of exocytosis as a measure of Ca2+ channel domain overlap. Brain Research, 2011, 1398, 126-138.	1.1	49
7	Reduced endogenous Ca ²⁺ buffering speeds active zone Ca ²⁺ signaling. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3075-84.	3.3	49
8	Complex-temperature properties of the two-dimensional Ising model for nonzero magnetic field. Physical Review E, 1996, 53, 254-267.	0.8	41
9	Complex-temperature singularities in Potts models on the square lattice. Physical Review E, 1996, 54, 6174-6185.	0.8	38
10	Complex-temperature singularities in thed= 2 Ising model: triangular and honeycomb lattices. Journal of Physics A, 1996, 29, 803-823.	1.6	33
11	Loss of phase-locking in non-weakly coupled inhibitory networks of type-I model neurons. Journal of Computational Neuroscience, 2009, 26, 303-320.	0.6	32
12	Residual Bound Ca2+ Can Account for the Effects of Ca2+ Buffers on Synaptic Facilitation. Journal of Neurophysiology, 2006, 96, 3389-3397.	0.9	31
13	A connection between complex-temperature properties of the 1D and 2D spin s Ising model. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 204, 353-358.	0.9	25
14	Ca2+-dependent Inactivation of CaV1.2 Channels Prevents Gd3+ Block: Does Ca2+ Block the Pore of Inactivated Channels?. Journal of General Physiology, 2007, 129, 477-483.	0.9	25
15	Ca²⁺Current versus Ca²⁺Channel Cooperativity of Exocytosis. Journal of Neuroscience, 2009, 29, 12196-12209.	1.7	25
16	Some new results on Yang-Lee zeros of the Ising model partition function. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 215, 271-279.	0.9	20
17	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
18	Multistability of clustered states in a globally inhibitory network. Physica D: Nonlinear Phenomena, 2009, 238, 253-263.	1.3	19

#	Article	IF	Citations
19	Neuromodulatory changes in short-term synaptic dynamics may be mediated by two distinct mechanisms of presynaptic calcium entry. Journal of Computational Neuroscience, 2012, 33, 573-585.	0.6	15
20	On properties of the Ising model for complex energy/temperature and magnetic field. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 135002.	0.7	14
21	PadÃ© Approximation of a Stationary Single-Channel Ca 2+ Nanodomain. Biophysical Journal, 2016, 111, 2062-2074.	0.2	11
22	Extension of Rapid Buffering Approximation to Ca2+ Buffers with Two Binding Sites. Biophysical Journal, 2018, 114, 1204-1215.	0.2	8
23	Complex-temperature phase diagram of the 1D Z6 clock model and its connection with higher-dimensional models. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 221, 343-349.	0.9	7
24	Efficient Approximations for Stationary Single-Channel Ca2+ Nanodomains across Length Scales. Biophysical Journal, 2020, 119, 1239-1254.	0.2	4
25	Non-weak inhibition and phase resetting at negative values of phase in cells with fast-slow dynamics at hyperpolarized potentials. Journal of Computational Neuroscience, 2011, 31, 31-42.	0.6	3
26	Stationary Ca2+ nanodomains in the presence of buffers with two binding sites. Biophysical Journal, 2021, 120, 1942-1956.	0.2	3
27	Short-Term Synaptic Plasticity in Central Pattern Generators. , 2014, , 1-14.		2
28	Ca2+buffering as a mechanism of short-term synaptic plasticity. BMC Neuroscience, 2013, 14, .	0.8	1
29	Calcium-Dependent Exocytosis, Biophysical Models of. , 2014, , 1-17.		1
30	Effect of spatial arrangement of presynaptic calcium channels on the calcium current cooperativity of neurotransmitter release. BMC Neuroscience, 2011, 12, .	0.8	0
31	NEGATIVE PHASE AND LEADER SWITCHING IN NON-WEAKLY COUPLED TWO-CELL INHIBITORY NETWORKS. , 2008, , .		0
32	Facilitation, Biophysical Models. , 2014, , 1-6.		0
33	Biophysical Models of Calcium-Dependent Exocytosis. , 2020, , 1-18.		0
34	Short-Term Synaptic Plasticity in Central Pattern Generators. , 2022, , 3107-3118.		0
35	Facilitation, Biophysical Models. , 2022, , 1391-1395.		0
36	Biophysical Models of Calcium-Dependent Exocytosis. , 2022, , 468-484.		0