Matteo Di Volo

List of Publications by Year
in descending order

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24 papers	460 citations	759233 12 h-index	839539 18 g-index
29 all docs	29 docs citations	29 times ranked	371 citing authors

#	Article	IF	Citations
1	Biologically Realistic Mean-Field Models of Conductance-Based Networks of Spiking Neurons with Adaptation. Neural Computation, 2019, 31, 653-680.	2.2	64
2	Transition from Asynchronous to Oscillatory Dynamics in Balanced Spiking Networks with Instantaneous Synapses. Physical Review Letters, 2018, 121, 128301.	7.8	55
3	Suppressive Traveling Waves Shape Representations of Illusory Motion in Primary Visual Cortex of Awake Primate. Journal of Neuroscience, 2019, 39, 4282-4298.	3.6	36
4	Cholinergic Switch between Two Types of Slow Waves in Cerebral Cortex. Cerebral Cortex, 2020, 30, 3451-3466.	2.9	32
5	Bridging Single Neuron Dynamics to Global Brain States. Frontiers in Systems Neuroscience, 2019, 13, 75.	2.5	28
6	Coexistence of fast and slow gamma oscillations in one population of inhibitory spiking neurons. Physical Review Research, 2020, 2, .	3.6	27
7	Reduction Methodology for Fluctuation Driven Population Dynamics. Physical Review Letters, 2021, 127, 038301.	7.8	25
8	Average synaptic activity and neural networks topology: a global inverse problem. Scientific Reports, 2014, 4, 4336.	3.3	21
9	Synchronous dynamics in the presence of short-term plasticity. Physical Review E, 2013, 87, .	2.1	18
10	Heterogeneous mean field for neural networks with short-term plasticity. Physical Review E, 2014, 90, 022811.	2.1	15
11	Dynamical ventral tegmental area circuit mechanisms of alcoholâ€dependent dopamine release. European Journal of Neuroscience, 2019, 50, 2282-2296.	2.6	15
12	Contribution of synchronized GABAergic neurons to dopaminergic neuron firing and bursting. Journal of Neurophysiology, 2016, 116, 1900-1923.	1.8	14
13	Chaos and Correlated Avalanches in Excitatory Neural Networks with Synaptic Plasticity. Physical Review Letters, 2017, 118, 098102.	7.8	14
14	Coherent oscillations in balanced neural networks driven by endogenous fluctuations. Chaos, 2022, 32, 023120.	2.5	14
15	Synchronization and long-time memory in neural networks with inhibitory hubs and synaptic plasticity. Physical Review E, 2017, 95, 012308.	2.1	13
16	Optimal responsiveness and information flow in networks of heterogeneous neurons. Scientific Reports, 2021, 11, 17611.	3.3	12
17	Asynchronous and Coherent Dynamics in Balanced Excitatory-Inhibitory Spiking Networks. Frontiers in Systems Neuroscience, 2021, 15, 752261.	2.5	11
18	Microscopic mechanism for self-organized quasiperiodicity in random networks of nonlinear oscillators. Physical Review E, 2014, 90, 042918.	2.1	10

#	Article	IF	Citations
19	State-dependent mean-field formalism to model different activity states in conductance-based networks of spiking neurons. Physical Review E, 2019, 100, 062413.	2.1	9
20	Neural networks with excitatory and inhibitory components: Direct and inverse problems by a mean-field approach. Physical Review E, 2016, 93, 012305.	2.1	8
21	Inferring network structure and local dynamics from neuronal patterns with quenched disorder. Chaos, Solitons and Fractals, 2020, 140, 110235.	5.1	5
22	The influence of noise on synchronous dynamics in a diluted neural network. Chaos, Solitons and Fractals, 2013, 57, 54-61.	5.1	4
23	Order symmetry breaking and broad distribution of events in spiking neural networks with continuous membrane potential. Chaos, Solitons and Fractals, 2021, 147, 110946.	5.1	2
24	Cortical propagating waves: amplifying and suppressive?. Journal of Computational Neuroscience, 2021, 49, 371-373.	1.0	0