

John A White

List of Publications by Year in descending order

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89
papers

6,229
citations

94381

37
h-index

74108

75
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90
all docs

90
docs citations

90
times ranked

5091
citing authors

#	ARTICLE	IF	CITATIONS
1	Kinetics and Connectivity Properties of Parvalbumin- and Somatostatin-Positive Inhibition in Layer 2/3 Medial Entorhinal Cortex. <i>ENeuro</i> , 2022, 9, ENEURO.0441-21.2022.	0.9	18
2	Effects of Axonal Demyelination, Inflammatory Cytokines and Divalent Cation Chelators on Thalamic HCN Channels and Oscillatory Bursting. <i>International Journal of Molecular Sciences</i> , 2022, 23, 6285.	1.8	5
3	Determining the optimal expression method for dual-color imaging. <i>Journal of Neuroscience Methods</i> , 2021, 351, 109064.	1.3	1
4	Non-genetic photoacoustic stimulation of single neurons by a tapered fiber optoacoustic emitter. <i>Light: Science and Applications</i> , 2021, 10, 143.	7.7	27
5	Voltage Imaging of Cardiac Cells and Tissue Using the Genetically Encoded Voltage Sensor Archon1. <i>IScience</i> , 2020, 23, 100974.	1.9	5
6	CaMKII β -Positive Interneurons Identified via a microRNA-Based Viral Gene Targeting Strategy. <i>Journal of Neuroscience</i> , 2020, 40, 9576-9588.	1.7	15
7	Core Competencies for Undergraduates in Bioengineering and Biomedical Engineering: Findings, Consequences, and Recommendations. <i>Annals of Biomedical Engineering</i> , 2020, 48, 905-912.	1.3	37
8	Ultrastructural and functional changes at the tripartite synapse during epileptogenesis in a model of temporal lobe epilepsy. <i>Experimental Neurology</i> , 2020, 326, 113196.	2.0	24
9	A model of cholinergic suppression of hippocampal ripples through disruption of balanced excitation/inhibition. <i>Hippocampus</i> , 2019, 29, 773-786.	0.9	7
10	Balanced synaptic currents underlie low-frequency oscillations in the subiculum. <i>Hippocampus</i> , 2019, 29, 1178-1189.	0.9	2
11	Voltage-Dependent Membrane Properties Shape the Size But Not the Frequency Content of Spontaneous Voltage Fluctuations in Layer 2/3 Somatosensory Cortex. <i>Journal of Neuroscience</i> , 2019, 39, 2221-2237.	1.7	7
12	Editorial overview: high-resolution brain cell imaging. <i>Current Opinion in Biomedical Engineering</i> , 2019, 12, A4-A5.	1.8	0
13	Conditional Knock-out of mGluR5 from Astrocytes during Epilepsy Development Impairs High-Frequency Glutamate Uptake. <i>Journal of Neuroscience</i> , 2019, 39, 727-742.	1.7	40
14	Differences in the Electrophysiological Properties of Mouse Somatosensory Layer 2/3 Neurons <i>In Vivo</i> and Slice Stem from Intrinsic Sources Rather than a Network-Generated High Conductance State. <i>ENeuro</i> , 2018, 5, ENEURO.0447-17.2018.	0.9	20
15	Mathematical investigation of IP3-dependent calcium dynamics in astrocytes. <i>Journal of Computational Neuroscience</i> , 2017, 42, 257-273.	0.6	28
16	Diversity of Evoked Astrocyte Ca ²⁺ Dynamics Quantified through Experimental Measurements and Mathematical Modeling. <i>Frontiers in Systems Neuroscience</i> , 2017, 11, 79.	1.2	27
17	Hard real-time closed-loop electrophysiology with the Real-Time eXperiment Interface (RTXI). <i>PLoS Computational Biology</i> , 2017, 13, e1005430.	1.5	55
18	Anatomical and Electrophysiological Clustering of Superficial Medial Entorhinal Cortex Interneurons. <i>ENeuro</i> , 2017, 4, ENEURO.0263-16.2017.	0.9	22

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19	Gain Modulation of Cholinergic Neurons in the Medial Septumâ€”Diagonal Band of Broca Through Hyperpolarization. <i>Hippocampus</i> , 2016, 26, 1525-1541.	0.9	5
20	Cover Image, Volume 26, Issue 12. <i>Hippocampus</i> , 2016, 26, C1-C1.	0.9	0
21	Repeated low-dose kainate administration in C57BL/6J mice produces temporal lobe epilepsy pathology but infrequent spontaneous seizures. <i>Experimental Neurology</i> , 2016, 279, 116-126.	2.0	33
22	Imaging activity in astrocytes and neurons with genetically encoded calcium indicators following in utero electroporation. <i>Frontiers in Molecular Neuroscience</i> , 2015, 8, 10.	1.4	31
23	Non-linear Membrane Properties in Entorhinal Cortical Stellate Cells Reduce Modulation of Input-Output Responses by Voltage Fluctuations. <i>PLoS Computational Biology</i> , 2015, 11, e1004188.	1.5	14
24	Resonant Interneurons Can Increase Robustness of Gamma Oscillations. <i>Journal of Neuroscience</i> , 2015, 35, 15682-15695.	1.7	94
25	Altered structure and function of astrocytes following status epilepticus. <i>Epilepsy and Behavior</i> , 2015, 49, 17-19.	0.9	22
26	Nonlinear properties of medial entorhinal cortex neurons reveal frequency selectivity during multi-sinusoidal stimulation. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 239.	1.8	0
27	The Past, Present, and Future of Real-Time Control in Cellular Electrophysiology. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 1448-1456.	2.5	8
28	Imaging Activity in Neurons and Glia with a Polr2a-Based and Cre-Dependent GCaMP5G-IRES-tdTomato Reporter Mouse. <i>Neuron</i> , 2014, 83, 1058-1072.	3.8	120
29	Membrane potentialâ€”dependent integration of synaptic inputs in entorhinal stellate neurons. <i>Hippocampus</i> , 2014, 24, 1493-1505.	0.9	11
30	Dynamic Clamp in Cardiac and Neuronal Systems Using RTXI. <i>Methods in Molecular Biology</i> , 2014, 1183, 327-354.	0.4	23
31	Optical Dissection of Odor Information Processing <i>In Vivo</i> Using GCaMPs Expressed in Specified Cell Types of the Olfactory Bulb. <i>Journal of Neuroscience</i> , 2013, 33, 5285-5300.	1.7	119
32	Place cell activation predicts subsequent memory. <i>Behavioural Brain Research</i> , 2013, 254, 65-72.	1.2	27
33	Entorhinal Stellate Cells Show Preferred Spike Phase-Locking to Theta Inputs That Is Enhanced by Correlations in Synaptic Activity. <i>Journal of Neuroscience</i> , 2013, 33, 6027-6040.	1.7	18
34	Hippocampal â€œTime Cellsâ€” Time versus Path Integration. <i>Neuron</i> , 2013, 78, 1090-1101.	3.8	414
35	Spike Resonance Properties in Hippocampal O-LM Cells Are Dependent on Refractory Dynamics. <i>Journal of Neuroscience</i> , 2012, 32, 3637-3651.	1.7	59
36	Spike Phase Locking in CA1 Pyramidal Neurons Depends on Background Conductance and Firing Rate. <i>Journal of Neuroscience</i> , 2012, 32, 14374-14388.	1.7	42

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37	Pyramidal cells accumulate chloride at seizure onset. <i>Neurobiology of Disease</i> , 2012, 47, 358-366.	2.1	115
38	Short Conduction Delays Cause Inhibition Rather than Excitation to Favor Synchrony in Hybrid Neuronal Networks of the Entorhinal Cortex. <i>PLoS Computational Biology</i> , 2012, 8, e1002306.	1.5	29
39	Membrane Properties and the Balance between Excitation and Inhibition Control Gamma-Frequency Oscillations Arising from Feedback Inhibition. <i>PLoS Computational Biology</i> , 2012, 8, e1002354.	1.5	46
40	GenNet: A Platform for Hybrid Network Experiments. <i>Frontiers in Neuroinformatics</i> , 2011, 5, 11.	1.3	14
41	Membrane Voltage Fluctuations Reduce Spike Frequency Adaptation and Preserve Output Gain in CA1 Pyramidal Neurons in a High-Conductance State. <i>Journal of Neuroscience</i> , 2011, 31, 3880-3893.	1.7	47
42	Gain Control in CA1 Pyramidal Cells Using Changes in Somatic Conductance. <i>Journal of Neuroscience</i> , 2010, 30, 230-241.	1.7	45
43	Phase-response curves and synchronized neural networks. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2010, 365, 2407-2422.	1.8	155
44	Real-time Experiment Interface for biological control applications. , 2010, 2010, 4160-3.		37
45	Dynamic Clamp: Alteration of Response Properties and Creation of Virtual Realities in Neurophysiology. <i>Journal of Neuroscience</i> , 2010, 30, 2407-2413.	1.7	31
46	The Mechanism of Abrupt Transition between Theta and Hyper-Excitable Spiking Activity in Medial Entorhinal Cortex Layer II Stellate Cells. <i>PLoS ONE</i> , 2010, 5, e13697.	1.1	24
47	Mechanisms of coherent activity in hippocampus and entorhinal cortex. , 2009, 2009, 4226-7.		0
48	Glycinergic Inhibition in the Hippocampus. <i>Reviews in the Neurosciences</i> , 2009, 20, 13-22.	1.4	31
49	Reduction of Spike Afterdepolarization by Increased Leak Conductance Alters Interspike Interval Variability. <i>Journal of Neuroscience</i> , 2009, 29, 973-986.	1.7	18
50	Dynamical Instability Determines the Effect of Ongoing Noise on Neural Firing. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2009, 10, 251-267.	0.9	12
51	Using "Hard" Real-Time Dynamic Clamp to Study Cellular and Network Mechanisms of Synchronization in the Hippocampal Formation. , 2009, , 199-215.		1
52	Effects of imperfect dynamic clamp: Computational and experimental results. <i>Journal of Neuroscience Methods</i> , 2008, 169, 282-289.	1.3	57
53	Two-photon imaging of spatially extended neuronal network dynamics with high temporal resolution. <i>Journal of Neuroscience Methods</i> , 2008, 172, 178-184.	1.3	92
54	Frequency-Dependent Glycinergic Inhibition Modulates Plasticity in Hippocampus. <i>Journal of Neuroscience</i> , 2008, 28, 7359-7369.	1.7	21

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55	Artificial Synaptic Conductances Reduce Subthreshold Oscillations and Periodic Firing in Stellate Cells of the Entorhinal Cortex. <i>Journal of Neuroscience</i> , 2008, 28, 3790-3803.	1.7	73
56	Development of Theta Rhythmicity in Entorhinal Stellate Cells of the Juvenile Rat. <i>Journal of Neurophysiology</i> , 2008, 100, 3144-3157.	0.9	33
57	Control of Neuronal Persistent Activity by Voltage-Dependent Dendritic Properties. <i>Journal of Neurophysiology</i> , 2008, 100, 1278-1286.	0.9	16
58	Disambiguation of Overlapping Experiences by Neurons in the Medial Entorhinal Cortex. <i>Journal of Neuroscience</i> , 2007, 27, 5787-5795.	1.7	74
59	Simple Models Show the General Advantages of Dendrites in Coincidence Detection. <i>Journal of Neurophysiology</i> , 2007, 97, 3449-3459.	0.9	19
60	Sniffing controls an adaptive filter of sensory input to the olfactory bulb. <i>Nature Neuroscience</i> , 2007, 10, 631-639.	7.1	346
61	Contributions of I _h to feature selectivity in layer II stellate cells of the entorhinal cortex. <i>Journal of Computational Neuroscience</i> , 2007, 22, 161-171.	0.6	37
62	Roles of I _A and morphology in action potential propagation in CA1 pyramidal cell dendrites. <i>Journal of Computational Neuroscience</i> , 2007, 23, 201-216.	0.6	10
63	Response: Implementation Issues in Approximate Methods for Stochastic Hodgkin-Huxley models. <i>Annals of Biomedical Engineering</i> , 2007, 35, 319-319.	1.3	2
64	The dynamic structure underlying subthreshold oscillatory activity and the onset of spikes in a model of medial entorhinal cortex stellate cells. <i>Journal of Computational Neuroscience</i> , 2006, 21, 271-292.	0.6	96
65	Low-Dimensional Maps Encoding Dynamics in Entorhinal Cortex and Hippocampus. <i>Neural Computation</i> , 2006, 18, 2617-2650.	1.3	43
66	Synaptic input statistics tune the variability and reproducibility of neuronal responses. <i>Chaos</i> , 2006, 16, 026105.	1.0	6
67	Slow and Fast Inhibition and an H-Current Interact to Create a Theta Rhythm in a Model of CA1 Interneuron Network. <i>Journal of Neurophysiology</i> , 2005, 94, 1509-1518.	0.9	150
68	Ion-Channel Noise Places Limits on the Miniaturization of the Brain's Wiring. <i>Current Biology</i> , 2005, 15, 1143-1149.	1.8	185
69	Beyond Two-Cell Networks: Experimental Measurement of Neuronal Responses to Multiple Synaptic Inputs. <i>Journal of Computational Neuroscience</i> , 2005, 18, 287-295.	0.6	82
70	Synchronization in Hybrid Neuronal Networks of the Hippocampal Formation. <i>Journal of Neurophysiology</i> , 2005, 93, 1197-1208.	0.9	188
71	Channel Noise is Essential for Perithreshold Oscillations in Entorhinal Stellate Neurons. <i>Journal of Neuroscience</i> , 2005, 25, 10025-10028.	1.7	121
72	Effects of Inhibitory Feedback in a Network Model of Avian Brain Stem. <i>Journal of Neurophysiology</i> , 2005, 94, 400-414.	0.9	40

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73	Increasing Ca ²⁺ transients by broadening postsynaptic action potentials enhances timing-dependent synaptic depression. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 19121-19125.	3.3	55
74	Epilepsy in Small-World Networks. Journal of Neuroscience, 2004, 24, 8075-8083.	1.7	285
75	Synchronization of strongly coupled excitatory neurons: relating network behavior to biophysics. Journal of Computational Neuroscience, 2003, 15, 71-90.	0.6	152
76	Cultivation in Rotating Bioreactors Promotes Maintenance of Cardiac Myocyte Electrophysiology and Molecular Properties. Tissue Engineering, 2003, 9, 1243-1253.	4.9	96
77	Comparison of Algorithms for the Simulation of Action Potentials with Stochastic Sodium Channels. Annals of Biomedical Engineering, 2002, 30, 578-587.	1.3	110
78	Frequency Selectivity of Layer II Stellate Cells in the Medial Entorhinal Cortex. Journal of Neurophysiology, 2002, 88, 2422-2429.	0.9	120
79	Real-Time Linux Dynamic Clamp: A Fast and Flexible Way to Construct Virtual Ion Channels in Living Cells. Annals of Biomedical Engineering, 2001, 29, 897-907.	1.3	144
80	Channel noise in neurons. Trends in Neurosciences, 2000, 23, 131-137.	4.2	565
81	Interactions between Distinct GABA _A Circuits in Hippocampus. Neuron, 2000, 25, 449-457.	3.8	117
82	Fractal ion-channel behavior generates fractal firing patterns in neuronal models. Physical Review E, 1999, 59, 5970-5980.	0.8	96
83	Analysis of dendritic arbors of native and regenerated ganglion cells in the goldfish retina. Visual Neuroscience, 1999, 16, 253-261.	0.5	18
84	Synchronization and oscillatory dynamics in heterogeneous, mutually inhibited neurons. Journal of Computational Neuroscience, 1998, 5, 5-16.	0.6	369
85	Frequency control in synchronized networks of inhibitory neurons. Journal of Computational Neuroscience, 1998, 5, 407-420.	0.6	118
86	The voltage-dependent conductances of rat neocortical layer I neurons. European Journal of Neuroscience, 1998, 10, 2309-2321.	1.2	12
87	Noise From Voltage-Gated Ion Channels May Influence Neuronal Dynamics in the Entorhinal Cortex. Journal of Neurophysiology, 1998, 80, 262-269.	0.9	200
88	A heart-like Na ⁺ current in the medial entorhinal cortex. Neuron, 1993, 11, 1037-1047.	3.8	73
89	The parameter identification problem for the somatic shunt model. Biological Cybernetics, 1992, 66, 307-318.	0.6	23