

Dirk Bucher

List of Publications by Year in descending order

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Version: 2024-02-01

30
papers

3,989
citations

394421

19
h-index

477307

29
g-index

38
all docs

38
docs citations

38
times ranked

3352
citing authors

#	ARTICLE	IF	CITATIONS
1	Central pattern generators and the control of rhythmic movements. <i>Current Biology</i> , 2001, 11, R986-R996.	3.9	917
2	Similar network activity from disparate circuit parameters. <i>Nature Neuroscience</i> , 2004, 7, 1345-1352.	14.8	914
3	Understanding Circuit Dynamics Using the Stomatogastric Nervous System of Lobsters and Crabs. <i>Annual Review of Physiology</i> , 2007, 69, 291-316.	13.1	591
4	Invertebrate Central Pattern Generation Moves along. <i>Current Biology</i> , 2005, 15, R685-R699.	3.9	263
5	Neuromodulation of neurons and synapses. <i>Current Opinion in Neurobiology</i> , 2014, 29, 48-56.	4.2	234
6	Animal-to-Animal Variability in Motor Pattern Production in Adults and during Growth. <i>Journal of Neuroscience</i> , 2005, 25, 1611-1619.	3.6	171
7	Beyond faithful conduction: Short-term dynamics, neuromodulation, and long-term regulation of spike propagation in the axon. <i>Progress in Neurobiology</i> , 2011, 94, 307-346.	5.7	152
8	The complexity of small circuits: the stomatogastric nervous system. <i>Current Opinion in Neurobiology</i> , 2016, 41, 1-7.	4.2	67
9	Central Pattern Generating Neurons Simultaneously Express Fast and Slow Rhythmic Activities in the Stomatogastric Ganglion. <i>Journal of Neurophysiology</i> , 2006, 95, 3617-3632.	1.8	60
10	Interjoint Coordination in the Stick Insect Leg-Control System: The Role of Positional Signaling. <i>Journal of Neurophysiology</i> , 2003, 89, 1245-1255.	1.8	56
11	Functional roles of short-term synaptic plasticity with an emphasis on inhibition. <i>Current Opinion in Neurobiology</i> , 2017, 43, 71-78.	4.2	55
12	Axonal Dopamine Receptors Activate Peripheral Spike Initiation in a Stomatogastric Motor Neuron. <i>Journal of Neuroscience</i> , 2003, 23, 6866-6875.	3.6	54
13	Synaptic drive contributing to rhythmic activation of motoneurons in the deafferented stick insect walking system. <i>European Journal of Neuroscience</i> , 2004, 19, 1856-1862.	2.6	45
14	Dopamine Modulation of <i>h</i> Improves Temporal Fidelity of Spike Propagation in an Unmyelinated Axon. <i>Journal of Neuroscience</i> , 2012, 32, 5106-5119.	3.6	42
15	SnapShot: Neuromodulation. <i>Cell</i> , 2013, 155, 482-482.e1.	28.9	40
16	Neuropeptide Receptor Transcript Expression Levels and Magnitude of Ionic Current Responses Show Cell Type-Specific Differences in a Small Motor Circuit. <i>Journal of Neuroscience</i> , 2015, 35, 6786-6800.	3.6	39
17	Dopamine Modulates <i>lh</i> in a Motor Axon. <i>Journal of Neuroscience</i> , 2010, 30, 8425-8434.	3.6	38
18	Neuronal morphology and neuropil structure in the stomatogastric ganglion of the lobster, <i>Homarus americanus</i> . <i>Journal of Comparative Neurology</i> , 2007, 501, 185-205.	1.6	36

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19	Complex Intrinsic Membrane Properties and Dopamine Shape Spiking Activity in a Motor Axon. <i>Journal of Neuroscience</i> , 2009, 29, 5062-5074.	3.6	35
20	Distinct Co-Modulation Rules of Synapses and Voltage-Gated Currents Coordinate Interactions of Multiple Neuromodulators. <i>Journal of Neuroscience</i> , 2018, 38, 8549-8562.	3.6	28
21	Short-Term Synaptic Plasticity Compensates for Variability in Number of Motor Neurons at a Neuromuscular Junction. <i>Journal of Neuroscience</i> , 2012, 32, 16007-16017.	3.6	20
22	Constant amplitude of postsynaptic responses for single presynaptic action potentials but not bursting input during growth of an identified neuromuscular junction in the lobster, <i>Homarus americanus</i> . <i>Journal of Neurobiology</i> , 2005, 62, 47-61.	3.6	16
23	Ionic mechanisms underlying history-dependence of conduction delay in an unmyelinated axon. <i>ELife</i> , 2017, 6, .	6.0	16
24	Frequency-Dependent Action of Neuromodulation. <i>ENeuro</i> , 2021, 8, ENEURO.0338-21.2021.	1.9	12
25	Mapping circuit dynamics during function and dysfunction. <i>ELife</i> , 2022, 11, .	6.0	10
26	Removal of endogenous neuromodulators in a small motor network enhances responsiveness to neuromodulation. <i>Journal of Neurophysiology</i> , 2017, 118, 1749-1761.	1.8	9
27	Neuronal Homeostasis: Does Form Follow Function or Vice Versa?. <i>Current Biology</i> , 2009, 19, R64-R67.	3.9	6
28	Inter-Animal Variability in Activity Phase Is Constrained by Synaptic Dynamics in an Oscillatory Network. <i>ENeuro</i> , 2022, 9, ENEURO.0027-22.2022.	1.9	5
29	Mutual Suppression of Proximal and Distal Axonal Spike Initiation Determines the Output Patterns of a Motor Neuron. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 477.	3.7	4
30	Synaptic Dynamics Convey Differential Sensitivity to Input Pattern Changes in Two Muscles Innervated by the Same Motor Neurons. <i>ENeuro</i> , 2021, 8, ENEURO.0351-21.2021.	1.9	3