Izhar Bar-Gad

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3831898/publications.pdf

Version: 2024-02-01

63	3,232	159358	155451
papers	citations	30 h-index	55 g-index

65	65	65	2959
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Information processing, dimensionality reduction and reinforcement learning in the basal ganglia. Progress in Neurobiology, 2003, 71, 439-473.	2.8	347
2	Subthalamic nucleus functional organization revealed by parkinsonian neuronal oscillations and synchrony. Brain, 2008, 131, 3395-3409.	3.7	182
3	Stepping out of the box: information processing in the neural networks of the basal ganglia. Current Opinion in Neurobiology, 2001, 11, 689-695.	2.0	176
4	Beta oscillations in the cortico-basal ganglia loop during parkinsonism. Experimental Neurology, 2013, 245, 52-59.	2.0	162
5	Dopamine Replacement Therapy Reverses Abnormal Synchronization of Pallidal Neurons in the 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine Primate Model of Parkinsonism. Journal of Neuroscience, 2002, 22, 7850-7855.	1.7	156
6	Complex Locking Rather Than Complete Cessation of Neuronal Activity in the Globus Pallidus of a 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine-Treated Primate in Response to Pallidal Microstimulation. Journal of Neuroscience, 2004, 24, 7410-7419.	1.7	143
7	The neurophysiological correlates of motor tics following focal striatal disinhibition. Brain, 2009, 132, 2125-2138.	3.7	137
8	Mechanisms of Magnetic Stimulation of Central Nervous System Neurons. PLoS Computational Biology, 2011, 7, e1002022.	1.5	135
9	Dopamine Replacement Therapy Does Not Restore the Full Spectrum of Normal Pallidal Activity in the 1-Methyl-4-Phenyl-1,2,3,6-Tetra-Hydropyridine Primate Model of Parkinsonism. Journal of Neuroscience, 2006, 26, 8101-8114.	1.7	104
10	Motor tics evoked by striatal disinhibition in the rat. Frontiers in Systems Neuroscience, 2013, 7, 50.	1.2	94
11	Failure in identification of overlapping spikes from multiple neuron activity causes artificial correlations. Journal of Neuroscience Methods, 2001, 107, 1-13.	1.3	88
12	Functional Correlations between Neighboring Neurons in the Primate Globus Pallidus Are Weak or Nonexistent. Journal of Neuroscience, 2003, 23, 4012-4016.	1.7	87
13	Real-time refinement of subthalamic nucleus targeting using Bayesian decision-making on the root mean square measure. Movement Disorders, 2006, 21, 1425-1431.	2.2	86
14	Pathophysiology of tic disorders. Movement Disorders, 2015, 30, 1171-1178.	2.2	79
15	Local Shuffling of Spike Trains Boosts the Accuracy of Spike Train Spectral Analysis. Journal of Neurophysiology, 2006, 95, 3245-3256.	0.9	76
16	Generalized framework for stimulus artifact removal. Journal of Neuroscience Methods, 2010, 191, 45-59.	1.3	68
17	Tic Disorders. Neuroscientist, 2013, 19, 101-108.	2.6	67
18	Pharmacological animal models of Tourette syndrome. Neuroscience and Biobehavioral Reviews, 2013, 37, 1101-1119.	2.9	65

#	Article	IF	Citations
19	Dynamic Stereotypic Responses of Basal Ganglia Neurons to Subthalamic Nucleus High-Frequency Stimulation in the Parkinsonian Primate. Frontiers in Systems Neuroscience, 2011, 5, 21.	1.2	63
20	Decoupling neuronal oscillations during subthalamic nucleus stimulation in the parkinsonian primate. Neurobiology of Disease, 2012, 45, 583-590.	2.1	63
21	Spatial and Temporal Properties of Tic-Related Neuronal Activity in the Cortico-Basal Ganglia Loop. Journal of Neuroscience, 2011, 31, 8713-8721.	1.7	55
22	Patch-clamp recordings of rat neurons from acute brain slices of the somatosensory cortex during magnetic stimulation. Frontiers in Cellular Neuroscience, 2014, 8, 145.	1.8	55
23	Revealing neuronal functional organization through the relation between multi-scale oscillatory extracellular signals. Journal of Neuroscience Methods, 2010, 186, 116-129.	1.3	54
24	The neuronal refractory period causes a short-term peak in the autocorrelation function. Journal of Neuroscience Methods, 2001, 104, 155-163.	1.3	46
25	Electrophysiological Characteristics of Globus Pallidus Neurons. PLoS ONE, 2010, 5, e12001.	1.1	46
26	Globus Pallidus External Segment Neuron Classification in Freely Moving Rats: A Comparison to Primates. PLoS ONE, 2012, 7, e45421.	1.1	46
27	Prolonged striatal disinhibition as a chronic animal model of tic disorders. Journal of Neuroscience Methods, 2017, 292, 20-29.	1.3	44
28	Corticostriatal Divergent Function in Determining the Temporal and Spatial Properties of Motor Tics. Journal of Neuroscience, 2015, 35, 16340-16351.	1.7	43
29	Short-Term Depression of Synaptic Transmission during Stimulation in the Globus Pallidus of 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine-Treated Primates. Journal of Neuroscience, 2009, 29, 7797-7802.	1.7	40
30	Continuous Modulation of Action Potential Firing by a Unitary GABAergic Connection in the Globus Pallidus In Vitro. Journal of Neuroscience, 2013, 33, 12805-12809.	1.7	38
31	Temporal dynamics of saccades explained by a self-paced process. Scientific Reports, 2017, 7, 886.	1.6	36
32	Mini-coil for magnetic stimulation in the behaving primate. Journal of Neuroscience Methods, 2011, 194, 242-251.	1.3	30
33	Haloperidol-induced changes in neuronal activity in the striatum of the freely moving rat. Frontiers in Systems Neuroscience, 2013, 7, 110.	1.2	30
34	Loss of Specificity in Basal Ganglia Related Movement Disorders. Frontiers in Systems Neuroscience, 2011, 5, 38.	1.2	29
35	Bicuculline-Induced Chorea Manifests in Focal Rather Than Globalized Abnormalities in the Activation of the External and Internal Globus Pallidus. Journal of Neurophysiology, 2010, 104, 3261-3275.	0.9	24
36	Abnormal neuronal activity in Tourette syndrome and its modulation using deep brain stimulation. Journal of Neurophysiology, 2015, 114, 6-20.	0.9	20

#	Article	IF	Citations
37	Magnetic stimulation intensity modulates motor inhibition. Neuroscience Letters, 2011, 504, 93-97.	1.0	19
38	Animal Models of Tourette Syndromeâ€"From Proliferation to Standardization. Frontiers in Neuroscience, 2016, 10, 132.	1.4	17
39	Dopaminergic Modulation of Synaptic Integration and Firing Patterns in the Rat Entopeduncular Nucleus. Journal of Neuroscience, 2017, 37, 7177-7187.	1.7	15
40	Disinhibition of the Nucleus Accumbens Leads to Macro-Scale Hyperactivity Consisting of Micro-Scale Behavioral Segments Encoded by Striatal Activity. Journal of Neuroscience, 2019, 39, 5897-5909.	1.7	15
41	Dopamine receptors in the rat entopeduncular nucleus. Brain Structure and Function, 2018, 223, 2673-2684.	1.2	13
42	Aripiprazole Selectively Reduces Motor Tics in a Young Animal Model for Touretteâ€™s Syndrome and Comorbid Attention Deficit and Hyperactivity Disorder. Frontiers in Neurology, 2018, 9, 59.	1.1	13
43	Filter-Based Phase Shifts Distort Neuronal Timing Information. ENeuro, 2018, 5, ENEURO.0261-17.2018.	0.9	13
44	The Impact of Stimulation Induced Short-Term Synaptic Plasticity on Firing Patterns in the Globus Pallidus of the Rat. Frontiers in Systems Neuroscience, 2011, 5, 16.	1.2	12
45	Common neuronal mechanisms underlying tics and hyperactivity. Cortex, 2020, 127, 231-247.	1.1	12
46	Chapter 25 Behavior of Hindbrain Neurons During the Transition from Rest to Evoked Locomotion in a Newt. Progress in Brain Research, 1999, 123, 285-294.	0.9	11
47	Quantifying Spike Train Oscillations: Biases, Distortions and Solutions. PLoS Computational Biology, 2015, 11, e1004252.	1.5	11
48	Loss of Balance between Striatal Feedforward Inhibition and Corticostriatal Excitation Leads to Tremor. Journal of Neuroscience, 2018, 38, 1699-1710.	1.7	10
49	Filter based phase distortions in extracellular spikes. PLoS ONE, 2017, 12, e0174790.	1.1	10
50	Basal ganglia: physiological, behavioral, and computational studies. Frontiers in Systems Neuroscience, 2014, 8, 150.	1.2	9
51	Tonic and phasic changes in anteromedial globus pallidus activity in Tourette syndrome. Movement Disorders, 2017, 32, 1091-1096.	2.2	8
52	Dispersed Activity during Passive Movement in the Globus Pallidus of the 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine (MPTP)-Treated Primate. PLoS ONE, 2011, 6, e16293.	1.1	7
53	Changes in basal ganglia processing of cortical input following magnetic stimulation in Parkinsonism. Neurobiology of Disease, 2012, 48, 464-473.	2.1	5
54	Beta oscillations in the parkinsonian primate: Similar oscillations across different populations. Neurobiology of Disease, 2016, 93, 28-34.	2.1	5

#	Article	IF	Citations
55	Dissociation of tic generation from tic expression during the sleep-wake cycle. IScience, 2021, 24, 102380.	1.9	5
56	Generating Acute and Chronic Experimental Models of Motor Tic Expression in Rats. Journal of Visualized Experiments, 2021, , .	0.2	3
57	Stimulation Effect on Neuronal Activity in the Globus Pallidus of the Behaving Macaque. Advances in Behavioral Biology, 2009, , 73-83.	0.2	2
58	Endocannabinoids and Dopamine Balance Basal Ganglia Output. Frontiers in Cellular Neuroscience, 2021, 15, 639082.	1.8	1
59	Synchronization of Pallidal Activity in The Mptp Primate Model of Parkinsonism is not Limited to Oscillatory Activity. Advances in Behavioral Biology, 2002, , 29-34.	0.2	1
60	The High Frequency Discharge of Pallidal Neurons Disrupts the Interpretation of Pallidal Correlation Functions. Advances in Behavioral Biology, 2002, , 35-42.	0.2	1
61	Rise of the appendage. Frontiers in Neuroinformatics, 2009, 3, 32.	1.3	0
62	Dynamic input-dependent encoding of individual basal ganglia neurons. Scientific Reports, 2020, 10, 5833.	1.6	0
63	An orchestra without a conductor: Saccadic visual exploration can be explained by a self-paced process. Journal of Vision, 2017, 17, 902.	0.1	0