Izhar Bar-Gad

List of Publications by Year
in descending order

63 papers	3,232 citations	159525 30 h-index	155592 55 g-index
65 all docs	65 docs citations	65 times ranked	2959 citing authors

#	Article	IF	Citations
1	Endocannabinoids and Dopamine Balance Basal Ganglia Output. Frontiers in Cellular Neuroscience, 2021, 15, 639082.	1.8	1
2	Dissociation of tic generation from tic expression during the sleep-wake cycle. IScience, 2021, 24, 102380.	1.9	5
3	Generating Acute and Chronic Experimental Models of Motor Tic Expression in Rats. Journal of Visualized Experiments, 2021, , .	0.2	3
4	Dynamic input-dependent encoding of individual basal ganglia neurons. Scientific Reports, 2020, 10, 5833.	1.6	0
5	Common neuronal mechanisms underlying tics and hyperactivity. Cortex, 2020, 127, 231-247.	1.1	12
6	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
7	Loss of Balance between Striatal Feedforward Inhibition and Corticostriatal Excitation Leads to Tremor. Journal of Neuroscience, 2018, 38, 1699-1710.	1.7	10
8	Dopamine receptors in the rat entopeduncular nucleus. Brain Structure and Function, 2018, 223, 2673-2684.	1.2	13
9	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
10	Filter-Based Phase Shifts Distort Neuronal Timing Information. ENeuro, 2018, 5, ENEURO.0261-17.2018.	0.9	13
11	Prolonged striatal disinhibition as a chronic animal model of tic disorders. Journal of Neuroscience Methods, 2017, 292, 20-29.	1.3	44
12	Tonic and phasic changes in anteromedial globus pallidus activity in Tourette syndrome. Movement Disorders, 2017, 32, 1091-1096.	2.2	8
13	Temporal dynamics of saccades explained by a self-paced process. Scientific Reports, 2017, 7, 886.	1.6	36
14	Dopaminergic Modulation of Synaptic Integration and Firing Patterns in the Rat Entopeduncular Nucleus. Journal of Neuroscience, 2017, 37, 7177-7187.	1.7	15
15	Filter based phase distortions in extracellular spikes. PLoS ONE, 2017, 12, e0174790.	1.1	10
16	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
17	Animal Models of Tourette Syndromeâ€"From Proliferation to Standardization. Frontiers in Neuroscience, 2016, 10, 132.	1.4	17
18	Beta oscillations in the parkinsonian primate: Similar oscillations across different populations. Neurobiology of Disease, 2016, 93, 28-34.	2.1	5

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19	Pathophysiology of tic disorders. Movement Disorders, 2015, 30, 1171-1178.	2.2	79
20	Corticostriatal Divergent Function in Determining the Temporal and Spatial Properties of Motor Tics. Journal of Neuroscience, 2015, 35, 16340-16351.	1.7	43
21	Quantifying Spike Train Oscillations: Biases, Distortions and Solutions. PLoS Computational Biology, 2015, 11, e1004252.	1.5	11
22	Abnormal neuronal activity in Tourette syndrome and its modulation using deep brain stimulation. Journal of Neurophysiology, 2015, 114, 6-20.	0.9	20
23	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
24	Basal ganglia: physiological, behavioral, and computational studies. Frontiers in Systems Neuroscience, 2014, 8, 150.	1.2	9
25	Pharmacological animal models of Tourette syndrome. Neuroscience and Biobehavioral Reviews, 2013, 37, 1101-1119.	2.9	65
26	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
27	Beta oscillations in the cortico-basal ganglia loop during parkinsonism. Experimental Neurology, 2013, 245, 52-59.	2.0	162
28	Tic Disorders. Neuroscientist, 2013, 19, 101-108.	2.6	67
29	Motor tics evoked by striatal disinhibition in the rat. Frontiers in Systems Neuroscience, 2013, 7, 50.	1.2	94
30	Haloperidol-induced changes in neuronal activity in the striatum of the freely moving rat. Frontiers in Systems Neuroscience, 2013, 7, 110.	1.2	30
31	Changes in basal ganglia processing of cortical input following magnetic stimulation in Parkinsonism. Neurobiology of Disease, 2012, 48, 464-473.	2.1	5
32	Decoupling neuronal oscillations during subthalamic nucleus stimulation in the parkinsonian primate. Neurobiology of Disease, 2012, 45, 583-590.	2.1	63
33	Globus Pallidus External Segment Neuron Classification in Freely Moving Rats: A Comparison to Primates. PLoS ONE, 2012, 7, e45421.	1.1	46
34	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
35	Magnetic stimulation intensity modulates motor inhibition. Neuroscience Letters, 2011, 504, 93-97.	1.0	19
36	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

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37	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
38	Loss of Specificity in Basal Ganglia Related Movement Disorders. Frontiers in Systems Neuroscience, 2011, 5, 38.	1.2	29
39	Mini-coil for magnetic stimulation in the behaving primate. Journal of Neuroscience Methods, 2011, 194, 242-251.	1.3	30
40	Mechanisms of Magnetic Stimulation of Central Nervous System Neurons. PLoS Computational Biology, 2011, 7, e1002022.	1.5	135
41	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
42	Revealing neuronal functional organization through the relation between multi-scale oscillatory extracellular signals. Journal of Neuroscience Methods, 2010, 186, 116-129.	1.3	54
43	Generalized framework for stimulus artifact removal. Journal of Neuroscience Methods, 2010, 191, 45-59.	1.3	68
44	Electrophysiological Characteristics of Globus Pallidus Neurons. PLoS ONE, 2010, 5, e12001.	1.1	46
45	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
46	Rise of the appendage. Frontiers in Neuroinformatics, 2009, 3, 32.	1.3	0
47	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
48	The neurophysiological correlates of motor tics following focal striatal disinhibition. Brain, 2009, 132, 2125-2138.	3.7	137
49	Stimulation Effect on Neuronal Activity in the Globus Pallidus of the Behaving Macaque. Advances in Behavioral Biology, 2009, , 73-83.	0.2	2
50	Subthalamic nucleus functional organization revealed by parkinsonian neuronal oscillations and synchrony. Brain, 2008, 131, 3395-3409.	3.7	182
51	Local Shuffling of Spike Trains Boosts the Accuracy of Spike Train Spectral Analysis. Journal of Neurophysiology, 2006, 95, 3245-3256.	0.9	76
52	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
53	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
54	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

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55	Information processing, dimensionality reduction and reinforcement learning in the basal ganglia. Progress in Neurobiology, 2003, 71, 439-473.	2.8	347
56	Functional Correlations between Neighboring Neurons in the Primate Globus Pallidus Are Weak or Nonexistent. Journal of Neuroscience, 2003, 23, 4012-4016.	1.7	87
57	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
58	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
59	The High Frequency Discharge of Pallidal Neurons Disrupts the Interpretation of Pallidal Correlation Functions. Advances in Behavioral Biology, 2002, , 35-42.	0.2	1
60	The neuronal refractory period causes a short-term peak in the autocorrelation function. Journal of Neuroscience Methods, 2001, 104, 155-163.	1.3	46
61	Failure in identification of overlapping spikes from multiple neuron activity causes artificial correlations. Journal of Neuroscience Methods, 2001, 107, 1-13.	1.3	88
62	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
63	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