Theoden Ivan Netoff

List of Publications by Year
in descending order

97 papers	6,703 citations	136950 32 h-index	82547 72 g-index

101 all docs	101 docs citations	101 times ranked	8146 citing authors

#	Article	IF	Citations
1	Optimization of closed-loop electrical stimulation enables robust cerebellar-directed seizure control. Brain, 2023, 146, 91-108.	7.6	16
2	Disparate insults relevant to schizophrenia converge on impaired spike synchrony and weaker synaptic interactions in prefrontal local circuits. Current Biology, 2022, 32, 14-25.e4.	3.9	7
3	Strength-frequency curve for micromagnetic neurostimulation through excitatory postsynaptic potentials (EPSPs) on rat hippocampal neurons and numerical modeling of magnetic microcoil (Î¼coil). Journal of Neural Engineering, 2022, 19, 016018.	3.5	7
4	Fully Closed Loop Test Environment for Adaptive Implantable Neural Stimulators Using Computational Models. Journal of Medical Devices, Transactions of the ASME, 2022, 16, .	0.7	3
5	The safety of epidural spinal cord stimulation to restore function after spinal cord injury: post-surgical complications and incidence of cardiovascular events. Spinal Cord, 2022, 60, 903-910.	1.9	9
6	Spike Time Response Curve. , 2022, , 3228-3230.		0
7	Evaluation of functional MRI-based human brain parcellation: a review. Journal of Neurophysiology, 2022, 128, 197-217.	1.8	8
8	Closed-Loop neuromodulation for clustering neuronal populations. Journal of Neurophysiology, 2021, 125, 248-255.	1.8	6
9	Optimization of Spinal Cord Stimulation Using Bayesian Preference Learning and Its Validation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1987-1997.	4.9	18
10	Gait phase triggered deep brain stimulation in Parkinsonâ€™s disease. Brain Stimulation, 2021, 14, 420-422.	1.6	11
11	Semi-automated approaches to optimize deep brain stimulation parameters in Parkinsonâ€™s disease. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 83.	4.6	13
12	Electoretinographic evidence of retinal ganglion cell-dependent function in schizophrenia. Schizophrenia Research, 2020, 219, 34-46.	2.0	14
13	Discrepancy Between Internal and External Intracranial Pressure Transducers: Quantification of an Old Source of Error in EVDs?. World Neurosurgery, 2020, 133, e18-e25.	1.3	2
14	A thermal mechanism underlies tFUS neuromodulation. Brain Stimulation, 2020, 13, 327-328.	1.6	7
15	Long-Term Spinal Cord Stimulation After Chronic Complete Spinal Cord Injury Enables Volitional Movement in the Absence of Stimulation. Frontiers in Systems Neuroscience, 2020, 14, 35.	2.5	53
16	Epidural electrical stimulation and hemodynamic control after spinal cord injury. FASEB Journal, 2020, 34, 1-1.	0.5	0
17	Reversible neuroinhibition by focused ultrasound is mediated by a thermal mechanism. Brain Stimulation, 2019, 12, 1439-1447.	1.6	69
18	Epidural Spinal Cord Stimulation Facilitates Immediate Restoration of Dormant Motor and Autonomic Supraspinal Pathways after Chronic Neurologically Complete Spinal Cord Injury. Journal of Neurotrauma, 2019, 36, 2325-2336.	3.4	157

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19	S189. Disordered Patterns of Communication Within Local Cortical Circuits in a Mouse Model of Schizophrenia. Biological Psychiatry, 2019, 85, S370.	1.3	0
20	The Ability to Predict Seizure Onset. , 2019, , 365-378.		7
21	Epidural stimulation improves cerebral autoregulation and autonomic cardiac control in humans with spinal cord injury. FASEB Journal, 2019, 33, 533.6.	0.5	0
22	A single-cell based hybrid neuronal network configured by integration of cell micropatterning and dynamic patch-clamp. Applied Physics Letters, 2018, 113, .	3.3	8
23	Bayesian adaptive dual control of deep brain stimulation in a computational model of Parkinsonâ€™s disease. PLoS Computational Biology, 2018, 14, e1006606.	3.2	59
24	Data Driven Classification Using fMRI Network Measures: Application to Schizophrenia. Frontiers in Neuroinformatics, 2018, 12, 71.	2.5	11
25	Responses of thalamic neurons to itch- and pain-producing stimuli in rats. Journal of Neurophysiology, 2018, 120, 1119-1134.	1.8	17
26	Blocking NMDAR Disrupts Spike Timing and Decouples Monkey Prefrontal Circuits: Implications for Activity-Dependent Disconnection in Schizophrenia. Neuron, 2018, 98, 1243-1255.e5.	8.1	40
27	QRS Complex Detection and Measurement Algorithms for Multichannel ECGs in Cardiac Resynchronization Therapy Patients. IEEE Journal of Translational Engineering in Health and Medicine, 2018, 6, 1-11.	3.7	14
28	Targeting the Mouse Ventral Hippocampus in the Intrahippocampal Kainic Acid Model of Temporal Lobe Epilepsy. ENeuro, 2018, 5, ENEURO.0158-18.2018.	1.9	55
29	Seizure Control in a Computational Model Using a Reinforcement Learning Stimulation Paradigm. International Journal of Neural Systems, 2017, 27, 1750012.	5.2	37
30	The Sliding Windowed Infinite Fourier Transform [Tips & Tricks]. IEEE Signal Processing Magazine, 2017, 34, 183-188.	5.6	16
31	214 Using Interictal Multivariate Granger Causality to Detect Epileptogenic Hubs. Neurosurgery, 2017, 64, 258.	1.1	0
32	Phasic Burst Stimulation: A Closed-Loop Approach to Tuning Deep Brain Stimulation Parameters for Parkinsonâ€™s Disease. PLoS Computational Biology, 2016, 12, e1005011.	3.2	79
33	Computational modeling to advance deep brain stimulation for the treatment of Parkinsonâ€™s disease. Drug Discovery Today: Disease Models, 2016, 19, 31-36.	1.2	8
34	Desynchronization of stochastically synchronized chemical oscillators. Chaos, 2015, 25, 123116.	2.5	16
35	Closed-loop approach to tuning deep brain stimulation parameters for Parkinson's disease. BMC Neuroscience, 2015, 16, .	1.9	0
36	Application of generalized linear models to investigate functional synaptic coupling and synchrony in an animal model of schizophrenia. BMC Neuroscience, 2015, 16, .	1.9	0

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37	Future of Seizure Prediction and Intervention. Journal of Clinical Neurophysiology, 2015, 32, 194-206.	1.7	67
38	Optimal entrainment of heterogeneous noisy neurons. Frontiers in Neuroscience, 2015, 9, 192.	2.8	26
39	Effects of spike-time dependent plasticity on deep brain stimulation of the basal ganglia for treatment of Parkinson's disease. BMC Neuroscience, 2015, 16, .	1.9	0
40	Modulations in Oscillatory Frequency and Coupling in Globus Pallidus with Increasing Parkinsonian Severity. Journal of Neuroscience, 2015, 35, 6231-6240.	3.6	72
41	Early Seizure Detection Using Neuronal Potential Similarity: A Generalized Low-Complexity and Robust Measure. International Journal of Neural Systems, 2015, 25, 1550019.	5.2	22
42	Integrating Insults: Using Fault Tree Analysis to Guide Schizophrenia Research across Levels of Analysis. Frontiers in Human Neuroscience, 2015, 9, 698.	2.0	4
43	Origins and suppression of oscillations in a computational model of Parkinsonâ€™s disease. Journal of Computational Neuroscience, 2014, 37, 505-521.	1.0	62
44	Robust and low complexity algorithms for seizure detection. , 2014, 2014, 4447-50.		6
45	Functional Study of NIPA2 Mutations Identified from the Patients with Childhood Absence Epilepsy. PLoS ONE, 2014, 9, e109749.	2.5	26
46	Predicting deep-brain stimulation frequencies to suppress pathological population oscillations in a network model of Parkinson's disease. BMC Neuroscience, 2013, 14, .	1.9	1
47	Spontaneous Ca++ oscillations in astrocytes initiate high-frequency oscillations in model hippocampal network. BMC Neuroscience, 2013, 14, .	1.9	0
48	Designing anti-epileptic drugs using neuronal dynamics. BMC Neuroscience, 2013, 14, .	1.9	0
49	Neuromodulation for Brain Disorders: Challenges and Opportunities. IEEE Transactions on Biomedical Engineering, 2013, 60, 610-624.	4.2	148
50	Computational modeling of epilepsy for an experimental neurologist. Experimental Neurology, 2013, 244, 75-86.	4.1	35
51	Single neuron dynamics during experimentally induced anoxic depolarization. Journal of Neurophysiology, 2013, 110, 1469-1475.	1.8	16
52	Seizure prediction with bipolar spectral power features using Adaboost and SVM classifiers. , 2013, 2013, 6305-8.		11
53	Minimum energy control forin vitroneurons. Journal of Neural Engineering, 2013, 10, 036005.	3.5	34
54	Parameterized phase response curves for characterizing neuronal behaviors under transient conditions. Journal of Neurophysiology, 2013, 109, 2306-2316.	1.8	6

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55	Nanowires precisely grown on the ends of microwire electrodes permit the recording of intracellular action potentials within deeper neural structures. Nanomedicine, 2012, 7, 847-853.	3.3	18
56	Seizure detection on/off system using rats' ECoG. , 2012, 2012, 4688-91.		4
57	Reducing the number of features for seizure prediction of spectral power in intracranial EEG. , 2012, , .		4
58	Phase Response Curves to Measure Ion Channel Effects on Neurons. , 2012, , 207-236.		9
59	Experimentally Estimating Phase Response Curves of Neurons: Theoretical and Practical Issues. , 2012, , 95-129.		35
60	Dynamical changes in neurons during seizures determine tonic to clonic shift. Journal of Computational Neuroscience, 2012, 33, 41-51.	1.0	19
61	Dynamic control of modeled tonic-clonic seizure states with closed-loop stimulation. Frontiers in Neural Circuits, 2012, 6, 126.	2.8	12
62	Reconstructing micrometer-scale fiber pathways in the brain: Multi-contrast optical coherence tomography based tractography. NeuroImage, 2011, 58, 984-992.	4.2	104
63	Synchronization from Second Order Network Connectivity Statistics. Frontiers in Computational Neuroscience, 2011, 5, 28.	2.1	80
64	Chaotic Desynchronization as the Therapeutic Mechanism of Deep Brain Stimulation. Frontiers in Systems Neuroscience, 2011, 5, 50.	2.5	111
65	Seizure prediction with spectral power of EEG using cost-sensitive support vector machines. Epilepsia, 2011, 52, 1761-1770.	5.1	341
66	The variance of phase-resetting curves. Journal of Computational Neuroscience, 2011, 31, 185-197.	1.0	49
67	Chaotic decorrelation of Globus Pallidus by periodic forcing: a possible mechanism for the therapeutic effects of deep brain stimulation. BMC Neuroscience, 2011, 12, .	1.9	1
68	Disruption of tonic-clonic seizures using periodic stimulation of model neurons. BMC Neuroscience, 2011, 12, .	1.9	0
69	Controlling spike timing and synchrony in oscillatory neurons. BMC Neuroscience, 2011, 12, .	1.9	2
70	Dendritic mechanisms controlling the threshold and timing requirement of synaptic plasticity. Hippocampus, 2011, 21, 288-297.	1.9	26
71	A low complexity seizure prediction algorithm. , 2011, 2011, 1640-3.		5
72	Controlling spike timing and synchrony in oscillatory neurons. Journal of Neurophysiology, 2011, 105, 2074-2082.	1.8	17

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73	Seizure Prediction With Spectral Power of EEG Using Cost-Sensitive Support Vector Machines. Journal of Medical Devices, Transactions of the ASME, 2010, 4, .	0.7	2
74	Dynamical effects of antiepileptic drugs on neurons affect network synchronizability. BMC Neuroscience, 2010, 11, .	1.9	0
75	Identification of the Hippocampal Input to Medial Prefrontal Cortex In Vitro. Cerebral Cortex, 2010, 20, 393-403.	2.9	131
76	Seizure prediction with spectral power of time/space-differential EEG signals using cost-sensitive support vector machine. , 2010, , .		16
77	Controversies in epilepsy: Debates held during the Fourth International Workshop on Seizure Prediction. Epilepsy and Behavior, 2010, 19, 4-16.	1.7	61
78	Linear control of neuronal spike timing using phase response curves. , 2009, 2009, 1541-4.		2
79	Seizure prediction using cost-sensitive support vector machine. , 2009, 2009, 3322-5.		42
80	Perfusion-decellularized matrix: using nature's platform to engineer a bioartificial heart. Nature Medicine, 2008, 14, 213-221.	30.7	2,385
81	Syncronization in Hybrid Neuronal Networks. , 2008, , 281-287.		1
82	Sniffing controls an adaptive filter of sensory input to the olfactory bulb. Nature Neuroscience, 2007, 10, 631-639.	14.8	346
83	Mechanisms of carbachol oscillations. BMC Neuroscience, 2007, 8, .	1.9	0
84	Hybrid Neuronal Network Studies Under Dynamic Clamp. Methods in Molecular Biology, 2007, 403, 219-231.	0.9	2
85	Low-Dimensional Maps Encoding Dynamics in Entorhinal Cortex and Hippocampus. Neural Computation, 2006, 18, 2617-2650.	2.2	43
86	Beyond Two-Cell Networks: Experimental Measurement of Neuronal Responses to Multiple Synaptic Inputs. Journal of Computational Neuroscience, 2005, 18, 287-295.	1.0	82
87	Synchronization in Hybrid Neuronal Networks of the Hippocampal Formation. Journal of Neurophysiology, 2005, 93, 1197-1208.	1.8	188
88	Increasing Ca2+ 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.	7.1	55
89	Bistable Network Behavior of Layer I Interneurons in Auditory Cortex. Journal of Neuroscience, 2005, 25, 6175-6186.	3.6	42
90	Analytical coupling detection in the presence of noise and nonlinearity. Physical Review E, 2004, 69, 017201.	2.1	17

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91	Epilepsy in Small-World Networks. Journal of Neuroscience, 2004, 24, 8075-8083.	3.6	285
92	Decreased Neuronal Synchronization during Experimental Seizures. Journal of Neuroscience, 2002, 22, 7297-7307.	3.6	294
93	Early Seizure Detection. Journal of Clinical Neurophysiology, 2001, 18, 259-268.	1.7	128
94	Periodic Orbits: A New Language for Neuronal Dynamics. Biophysical Journal, 1998, 74, 2776-2785.	0.5	94
95	Stochastic resonance in mammalian neuronal networks. Chaos, 1998, 8, 588-598.	2.5	22
96	Stochastic Resonance in a Neuronal Network from Mammalian Brain. Physical Review Letters, 1996, 77, 4098-4101.	7.8	316
97	Feasibility testing of a novel prosthetic socket sensor system. Disability and Rehabilitation, 0, , 1-8.	1.8	2