Theoden Ivan Netoff

List of Publications by Year in Descending Order

89	6,053	34	77
papers	citations	h-index	g-index
101	7,049	4.4	5.79
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
89	Spike Time Response Curve **2022**, 3228-3230		
88	Disparate insults relevant to schizophrenia converge on impaired spike synchrony and weaker synaptic interactions in prefrontal local circuits. *Current Biology*, **2021**,	6.3	1
87	Gait phase triggered deep brain stimulation in Parkinson's disease. *Brain Stimulation*, **2021**, 14, 420-422	5.1	2
86	Semi-automated approaches to optimize deep brain stimulation parameters in Parkinson's disease. *Journal of NeuroEngineering and Rehabilitation*, **2021**, 18, 83	5.3	0
85	Closed-Loop neuromodulation for clustering neuronal populations. *Journal of Neurophysiology*, **2021**, 125, 248-255	3.2	2
84	Optimization of Spinal Cord Stimulation Using Bayesian Preference Learning and Its Validation. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2021**, 29, 1987-1997	4.8	2
83	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	3.5	21
82	Epidural electrical stimulation and hemodynamic control after spinal cord injury. *FASEB Journal*, **2020**, 34, 1-1	0.9	
81	A thermal mechanism underlies tFUS neuromodulation. *Brain Stimulation*, **2020**, 13, 327-328	5.1	3
80	Electoretinographic evidence of retinal ganglion cell-dependent function in schizophrenia. *Schizophrenia Research*, **2020**, 219, 34-46	3.6	5
79	Discrepancy Between Internal and External Intracranial Pressure Transducers: Quantification of an Old Source of Error in EVDs?. *World Neurosurgery*, **2020**, 133, e18-e25	2.1	1
78	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	5.4	75
77	Reversible neuroinhibition by focused ultrasound is mediated by a thermal mechanism. *Brain Stimulation*, **2019**, 12, 1439-1447	5.1	32
76	Epidural stimulation improves cerebral autoregulation and autonomic cardiac control in humans with spinal cord injury. *FASEB Journal*, **2019**, 33, 533.6	0.9	
75	The Ability to Predict Seizure Onset **2019**, 365-378		3
74	Responses of thalamic neurons to itch- and pain-producing stimuli in rats. *Journal of Neurophysiology*, **2018**, 120, 1119-1134	3.2	8
73	Blocking NMDAR Disrupts Spike Timing and Decouples Monkey Prefrontal Circuits: Implications for Activity-Dependent Disconnection in Schizophrenia. *Neuron*, **2018**, 98, 1243-1255.e5	13.9	24

72	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, 1900211	3	9
71	Targeting the Mouse Ventral Hippocampus in the Intrahippocampal Kainic Acid Model of Temporal Lobe Epilepsy. *ENeuro*, **2018**, 5,	3.9	34
70	A single-cell based hybrid neuronal network configured by integration of cell micropatterning and dynamic patch-clamp. *Applied Physics Letters*, **2018**, 113, 133703	3.4	4
69	Bayesian adaptive dual control of deep brain stimulation in a computational model of Parkinson's disease. *PLoS Computational Biology*, **2018**, 14, e1006606	5	23
68	Data Driven Classification Using fMRI Network Measures: Application to Schizophrenia. *Frontiers in Neuroinformatics*, **2018**, 12, 71	3.9	6
67	Seizure Control in a Computational Model Using a Reinforcement Learning Stimulation Paradigm. *International Journal of Neural Systems*, **2017**, 27, 1750012	6.2	23
66	The Sliding Windowed Infinite Fourier Transform [Tips & Tricks]. *IEEE Signal Processing Magazine*, **2017**, 34, 183-188	9.4	8
65	Phasic Burst Stimulation: A Closed-Loop Approach to Tuning Deep Brain Stimulation Parameters for Parkinson's Disease. *PLoS Computational Biology*, **2016**, 12, e1005011	5	57
64	Computational modeling to advance deep brain stimulation for the treatment of Parkinson's disease. *Drug Discovery Today: Disease Models*, **2016**, 19, 31-36	1.3	5
63	Modulations in oscillatory frequency and coupling in globus pallidus with increasing parkinsonian severity. *Journal of Neuroscience*, **2015**, 35, 6231-40	6.6	60
62	Early Seizure Detection Using Neuronal Potential Similarity: A Generalized Low-Complexity and Robust Measure. *International Journal of Neural Systems*, **2015**, 25, 1550019	6.2	22
61	Desynchronization of stochastically synchronized chemical oscillators. *Chaos*, **2015**, 25, 123116	3.3	14
60	Closed-loop approach to tuning deep brain stimulation parameters for Parkinson's disease. *BMC Neuroscience*, **2015**, 16,	3.2	78
59	Application of generalized linear models to investigate functional synaptic coupling and synchrony in an animal model of schizophrenia. *BMC Neuroscience*, **2015**, 16,	3.2	78
58	Future of seizure prediction and intervention: closing the loop. *Journal of Clinical Neurophysiology*, **2015**, 32, 194-206	2.2	46
57	Optimal entrainment of heterogeneous noisy neurons. *Frontiers in Neuroscience*, **2015**, 9, 192	5.1	20
56	Effects of spike-time dependent plasticity on deep brain stimulation of the basal ganglia for treatment of Parkinson's disease. *BMC Neuroscience*, **2015**, 16,	3.2	78
55	Integrating Insults: Using Fault Tree Analysis to Guide Schizophrenia Research across Levels of Analysis. *Frontiers in Human Neuroscience*, **2015**, 9, 698	3.3	2

54	Origins and suppression of oscillations in a computational model of Parkinson's disease. *Journal of Computational Neuroscience*, **2014**, 37, 505-21	1.4	50
53	Robust and low complexity algorithms for seizure detection. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 4447-50	0.9	5
52	Functional study of NIPA2 mutations identified from the patients with childhood absence epilepsy. *PLoS ONE*, **2014**, 9, e109749	3.7	19
51	Predicting deep-brain stimulation frequencies to suppress pathological population oscillations in a network model of Parkinson's disease. *BMC Neuroscience*, **2013**, 14,	3.2	1
50	Spontaneous Ca++ oscillations in astrocytes initiate high-frequency oscillations in model hippocampal network. *BMC Neuroscience*, **2013**, 14,	3.2	78
49	Designing anti-epileptic drugs using neuronal dynamics. *BMC Neuroscience*, **2013**, 14,	3.2	78
48	Neuromodulation for brain disorders: challenges and opportunities. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 610-24	5	107
47	Computational modeling of epilepsy for an experimental neurologist. *Experimental Neurology*, **2013**, 244, 75-86	5.7	27
46	Single neuron dynamics during experimentally induced anoxic depolarization. *Journal of Neurophysiology*, **2013**, 110, 1469-75	3.2	12
45	Seizure prediction with bipolar spectral power features using Adaboost and SVM classifiers. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 6305-8	0.9	6
44	Minimum energy control for in vitro neurons. *Journal of Neural Engineering*, **2013**, 10, 036005	5	31
43	Parameterized phase response curves for characterizing neuronal behaviors under transient conditions. *Journal of Neurophysiology*, **2013**, 109, 2306-16	3.2	6
42	Seizure detection on/off system using rats' ECoG. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 4688-91	0.9	3
41	Reducing the number of features for seizure prediction of spectral power in intracranial EEG **2012**,		3
40	Phase Response Curves to Measure Ion Channel Effects on Neurons **2012**, 207-236		8
39	Experimentally Estimating Phase Response Curves of Neurons: Theoretical and Practical Issues **2012**, 95-129		27
38	Dynamical changes in neurons during seizures determine tonic to clonic shift. *Journal of Computational Neuroscience*, **2012**, 33, 41-51	1.4	17
37	Dynamic control of modeled tonic-clonic seizure states with closed-loop stimulation. *Frontiers in Neural Circuits*, **2012**, 6, 126	3.5	9

36	Nanowires precisely grown on the ends of microwire electrodes permit the recording of intracellular action potentials within deeper neural structures. *Nanomedicine*, **2012**, 7, 847-53	5.6	16
35	Reconstructing micrometer-scale fiber pathways in the brain: multi-contrast optical coherence tomography based tractography. *NeuroImage*, **2011**, 58, 984-92	7.9	78
34	Synchronization from second order network connectivity statistics. *Frontiers in Computational Neuroscience*, **2011**, 5, 28	3.5	67
33	Chaotic desynchronization as the therapeutic mechanism of deep brain stimulation. *Frontiers in Systems Neuroscience*, **2011**, 5, 50	3.5	86
32	Seizure prediction with spectral power of EEG using cost-sensitive support vector machines. *Epilepsia*, **2011**, 52, 1761-70	6.4	268
31	The variance of phase-resetting curves. *Journal of Computational Neuroscience*, **2011**, 31, 185-97	1.4	44
30	Chaotic decorrelation of Globus Pallidus by periodic forcing: a possible mechanism for the therapeutic effects of deep brain stimulation. *BMC Neuroscience*, **2011**, 12,	3.2	78
29	Disruption of tonic-clonic seizures using periodic stimulation of model neurons. *BMC Neuroscience*, **2011**, 12,	3.2	78
28	Controlling spike timing and synchrony in oscillatory neurons. *BMC Neuroscience*, **2011**, 12,	3.2	2
27	Dendritic mechanisms controlling the threshold and timing requirement of synaptic plasticity. *Hippocampus*, **2011**, 21, 288-97	3.5	21
26	A low complexity seizure prediction algorithm. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 1640-3	0.9	3
25	Controlling spike timing and synchrony in oscillatory neurons. *Journal of Neurophysiology*, **2011**, 105, 2074-82	3.2	16
24	Identification of the hippocampal input to medial prefrontal cortex in vitro. *Cerebral Cortex*, **2010**, 20, 393-403	5.1	115
23	Seizure prediction with spectral power of time/space-differential EEG signals using cost-sensitive support vector machine **2010**,		10
22	Controversies in epilepsy: debates held during the Fourth International Workshop on Seizure Prediction. *Epilepsy and Behavior*, **2010**, 19, 4-16	3.2	52
21	Seizure Prediction With Spectral Power of EEG Using Cost-Sensitive Support Vector Machines. *Journal of Medical Devices, Transactions of the ASME*, **2010**, 4,	1.3	1
20	Dynamical effects of antiepileptic drugs on neurons affect network synchronizability. *BMC Neuroscience*, **2010**, 11,	3.2	78
19	Linear control of neuronal spike timing using phase response curves. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 1541-4	0.9	2

18	Seizure prediction using cost-sensitive support vector machine. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 3322-5	0.9	31
17	Perfusion-decellularized matrix: using nature's platform to engineer a bioartificial heart. *Nature Medicine*, **2008**, 14, 213-21	50.5	2047
16	Syncronization in Hybrid Neuronal Networks **2008**, 281-287		1
15	Sniffing controls an adaptive filter of sensory input to the olfactory bulb. *Nature Neuroscience*, **2007**, 10, 631-9	25.5	267
14	Mechanisms of carbachol oscillations. *BMC Neuroscience*, **2007**, 8,	3.2	78
13	Hybrid neuronal network studies under dynamic clamp. *Methods in Molecular Biology*, **2007**, 403, 219-31	1.4	2
12	Low-dimensional maps encoding dynamics in entorhinal cortex and hippocampus. *Neural Computation*, **2006**, 18, 2617-50	2.9	39
11	Beyond two-cell networks: experimental measurement of neuronal responses to multiple synaptic inputs. *Journal of Computational Neuroscience*, **2005**, 18, 287-95	1.4	70
10	Synchronization in hybrid neuronal networks of the hippocampal formation. *Journal of Neurophysiology*, **2005**, 93, 1197-208	3.2	170
9	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, 19121-5	11.5	51
8	Bistable network behavior of layer I interneurons in auditory cortex. *Journal of Neuroscience*, **2005**, 25, 6175-86	6.6	40
7	Analytical coupling detection in the presence of noise and nonlinearity. *Physical Review E*, **2004**, 69, 017201	2.4	15
6	Epilepsy in small-world networks. *Journal of Neuroscience*, **2004**, 24, 8075-83	6.6	240
5	Decreased neuronal synchronization during experimental seizures. *Journal of Neuroscience*, **2002**, 22, 7297-307	6.6	262
4	Early seizure detection. *Journal of Clinical Neurophysiology*, **2001**, 18, 259-68	2.2	107
3	Periodic orbits: a new language for neuronal dynamics. *Biophysical Journal*, **1998**, 74, 2776-85	2.9	90
2	Stochastic resonance in mammalian neuronal networks. *Chaos*, **1998**, 8, 588-598	3.3	19
1	Stochastic Resonance in a Neuronal Network from Mammalian Brain. *Physical Review Letters*, **1996**, 77, 4098-4101	7.4	271