

# Xile Wei

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

116  
papers

1,351  
citations

19  
h-index

30  
g-index

175  
ext. papers

1,822  
ext. citations

4.2  
avg, IF

4.92  
L-index

#	Paper	IF	Citations
116	Space-Vector-Optimized Predictive Control for Dual Three-Phase PMSM With Quick Current Response. <i>IEEE Transactions on Power Electronics</i> , <b>2021</b> , 1-1	7.2	8
115	Neural recruitment by ephaptic coupling in epilepsy. <i>Epilepsia</i> , <b>2021</b> , 62, 1505-1517	6.4	2
114	A CORDIC based real-time implementation and analysis of a respiratory central pattern generator. <i>Neurocomputing</i> , <b>2021</b> , 423, 373-388	5.4	2
113	BiCoSS: Toward Large-Scale Cognition Brain With Multigranular Neuromorphic Architecture. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2021</b> , PP,	10.3	54
112	An Embedded Multi-Core Real-Time Simulation Platform of Basal Ganglia for Deep Brain Stimulation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2021</b> , 29, 1328-1340	4.8	2
111	Asymptotic Input-Output Relationship Predicts Electric Field Effect on Sublinear Dendritic Integration of AMPA Synapses. <i>Neural Computation</i> , <b>2021</b> , 33, 3102-3138	2.9	1
110	A Data Driven Experimental System for Individualized Brain Stimulation Design and Validation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2021</b> , 29, 1848-1857	4.8	0
109	Functional Integration and Segregation in Multiplex Brain Networks for Alzheimer's Disease. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 51	5.1	12
108	Characterization of network switching in disorder of consciousness at multiple time scales. <i>Journal of Neural Engineering</i> , <b>2020</b> , 17, 026024	5	5
107	Altered inter-frequency dynamics of brain networks in disorder of consciousness. <i>Journal of Neural Engineering</i> , <b>2020</b> , 17, 036006	5	8
106	Application of Reinforcement Learning to Deep Brain Stimulation in a Computational Model of Parkinson's Disease. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2020</b> , 28, 339-349	4.8	10
105	Personalized closed-loop brain stimulation system based on linear state space model identification <b>2020</b> ,		1
104	Model Predictive Control for Seizure Suppression Based on Nonlinear Auto-Regressive Moving-Average Volterra Model. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2020</b> , 28, 2173-2183	4.8	5
103	Multiple Stochastic Resonances and Oscillation Transitions in Cortical Networks With Time Delay. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2020</b> , 28, 39-46	8.3	3
102	Training Spiking Neural Networks for Cognitive Tasks: A Versatile Framework Compatible With Various Temporal Codes. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2020</b> , 31, 1285-1296	10.3	15
101	Scalable Digital Neuromorphic Architecture for Large-Scale Biophysically Meaningful Neural Network With Multi-Compartment Neurons. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2020</b> , 31, 148-162	10.3	146
100	Calcium conductance-dependent network synchronization is differentially modulated by firing frequency. <i>International Journal of Modern Physics B</i> , <b>2019</b> , 33, 1950160	1.1	0

99	Energy Cost of Action Potential Generation and Propagation in Thalamocortical Relay Neurons During Deep Brain Stimulation. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2019</b> , 66, 3457-3471	5	2
98	Efficient Implementation of Cerebellar Purkinje Cell With the CORDIC Algorithm on LaCSNN. <i>Frontiers in Neuroscience</i> , <b>2019</b> , 13, 1078	5.1	4
97	Modulations of dendritic Ca spike with weak electric fields in layer 5 pyramidal cells. <i>Neural Networks</i> , <b>2019</b> , 110, 8-18	9.1	4
96	Slow periodic activity in the longitudinal hippocampal slice can self-propagate non-synaptically by a mechanism consistent with ephaptic coupling. <i>Journal of Physiology</i> , <b>2019</b> , 597, 249-269	3.9	37
95	Efficient digital implementation of a conductance-based globus pallidus neuron and the dynamics analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2018</b> , 494, 484-502	3.3	17
94	Synaptic dynamics regulation in response to high frequency stimulation in neuronal networks. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2018</b> , 55, 29-41	3.7	3
93	Opportunities and challenges of metamaterial-based wireless power transfer for electric vehicles. <i>Wireless Power Transfer</i> , <b>2018</b> , 5, 9-19	0.9	9
92	Twin Coil Design Considerations for Depth and Focality in Transcranial Magnetic Stimulation. <i>IEEE Transactions on Magnetics</i> , <b>2018</b> , 54, 1-5	2	2
91	Cost-efficient FPGA implementation of a biologically plausible dopamine neural network and its application. <i>Neurocomputing</i> , <b>2018</b> , 314, 394-408	5.4	16
90	Reconstruction of functional brain network in Alzheimer's disease via cross-frequency phase synchronization. <i>Neurocomputing</i> , <b>2018</b> , 314, 490-500	5.4	19
89	Slow moving neural source in the epileptic hippocampus can mimic progression of human seizures. <i>Scientific Reports</i> , <b>2018</b> , 8, 1564	4.9	9
88	Closed-Loop Control of Network Desynchronization Based on Unscented Kalman Filter <b>2018</b> ,		2
87	Nonlinear predictive control for adaptive adjustments of deep brain stimulation parameters in basal ganglia-thalamic network. <i>Neural Networks</i> , <b>2018</b> , 98, 283-295	9.1	12
86	Scale-specific effects: A report on multiscale analysis of acupunctured EEG in entropy and power. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2018</b> , 492, 2260-2272	3.3	1
85	Epileptic Seizure Detection using DWT Based Weighted Visibility Graph <b>2018</b> ,		1
84	Functional brain connectivity in Alzheimer's disease: An EEG study based on permutation disalignment index. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2018</b> , 506, 1093-1103	3.3	10
83	Closed-Loop Modulation of the Pathological Disorders of the Basal Ganglia Network. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2017</b> , 28, 371-382	10.3	21
82	Contributions of adaptation currents to dynamic spike threshold on slow timescales: Biophysical insights from conductance-based models. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2017</b> , 47, 81-99	3.7	

81	Estimate the effective connectivity in multi-coupled neural mass model using particle swarm optimization. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2017</b> , 469, 89-101	3-3	3
80	The dynamical analysis of modified two-compartment neuron model and FPGA implementation. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2017</b> , 484, 199-214	3-3	7
79	Robust stabilization control of bifurcations in Hodgkin-Huxley model with aid of unscented Kalman filter. <i>Chaos, Solitons and Fractals</i> , <b>2017</b> , 101, 92-99	9-3	6
78	A real-time FPGA implementation of a biologically inspired central pattern generator network. <i>Neurocomputing</i> , <b>2017</b> , 244, 63-80	5-4	12
77	Action potential initiation in a two-compartment model of pyramidal neuron mediated by dendritic Ca spike. <i>Scientific Reports</i> , <b>2017</b> , 7, 45684	4-9	9
76	Efficient hardware implementation of the subthalamic nucleus-external globus pallidus oscillation system and its dynamics investigation. <i>Neural Networks</i> , <b>2017</b> , 94, 220-238	9-1	10
75	Comparative Analysis and Optimization of Dynamic Charging Coils for Roadway-Powered Electric Vehicles. <i>IEEE Transactions on Magnetics</i> , <b>2017</b> , 53, 1-6	2	28
74	Fitting of adaptive neuron model to electrophysiological recordings using particle swarm optimization algorithm. <i>International Journal of Modern Physics B</i> , <b>2017</b> , 31, 1750023	1-1	4
73	Weak electric fields detectability in a noisy neural network. <i>Cognitive Neurodynamics</i> , <b>2017</b> , 11, 81-90	4-2	19
72	Comprehensive Survey on Improved Focality and Penetration Depth of Transcranial Magnetic Stimulation Employing Multi-Coil Arrays. <i>International Journal of Environmental Research and Public Health</i> , <b>2017</b> , 14,	4-6	10
71	Dendritic Properties Control Energy Efficiency of Action Potentials in Cortical Pyramidal Cells. <i>Frontiers in Cellular Neuroscience</i> , <b>2017</b> , 11, 265	6-1	11
70	Predictive control for spike pattern modulation of a two-compartment neuron model. <i>Neurocomputing</i> , <b>2016</b> , 216, 89-101	5-4	1
69	Geometric properties-dependent neural synchrony modulated by extracellular subthreshold electric field. <i>International Journal of Modern Physics B</i> , <b>2016</b> , 30, 1650142	1-1	1
68	Effects of couplings on the optimal desynchronizing control of neuronal networks. <i>Neurocomputing</i> , <b>2016</b> , 175, 736-746	5-4	1
67	Digital implementations of thalamocortical neuron models and its application in thalamocortical control using FPGA for Parkinson's disease. <i>Neurocomputing</i> , <b>2016</b> , 177, 274-289	5-4	25
66	FPGA implementation of motifs-based neuronal network and synchronization analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2016</b> , 451, 388-402	3-3	2
65	Fractal analysis of the short time series in a visibility graph method. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2016</b> , 450, 531-540	3-3	3
64	Input-output mapping reconstruction of spike trains at dorsal horn evoked by manual acupuncture. <i>International Journal of Modern Physics B</i> , <b>2016</b> , 30, 1550258	1-1	0

63	Particle swarm optimization algorithm based parameters estimation and control of epileptiform spikes in a neural mass model. <i>Chaos</i> , <b>2016</b> , 26, 073118	3-3	8
62	Dynamics of spike threshold in a two-compartment neuron with passive dendrite. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2016</b> , 40, 100-111	3-7	7
61	Local and global synchronization transitions induced by time delays in small-world neuronal networks with chemical synapses. <i>Cognitive Neurodynamics</i> , <b>2015</b> , 9, 93-101	4-2	7
60	Complexity extraction of electroencephalograms in Alzheimer's disease with weighted-permutation entropy. <i>Chaos</i> , <b>2015</b> , 25, 043105	3-3	24
59	Fractal characterization of acupuncture-induced spike trains of rat WDR neurons. <i>Chaos, Solitons and Fractals</i> , <b>2015</b> , 77, 205-214	9-3	2
58	Dynamical analysis of Parkinsonian state emulated by hybrid Izhikevich neuron models. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2015</b> , 28, 10-26	3-7	13
57	Vibrational resonance in adaptive small-world neuronal networks with spike-timing-dependent plasticity. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2015</b> , 436, 170-179	3-3	10
56	Dependence of sinusoidal electric field effect on neuronal morphological properties. <i>International Journal of Modern Physics B</i> , <b>2015</b> , 29, 1550092	1-1	
55	Cost-efficient FPGA implementation of basal ganglia and their Parkinsonian analysis. <i>Neural Networks</i> , <b>2015</b> , 71, 62-75	9-1	34
54	Multi-FPGA implementation of feedforward network and its performance analysis <b>2015</b> ,		1
53	Granger causality analysis in the neural mass model <b>2015</b> ,		1
52	Charactering neural spiking activity evoked by acupuncture through state-space model. <i>Applied Mathematical Modelling</i> , <b>2015</b> , 39, 1400-1408	4-5	2
51	Spike initiating dynamics of the neuron with different adaptation mechanisms to extracellular electric fields. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2015</b> , 22, 574-586	3-7	7
50	UKF-based closed loop iterative learning control of epileptiform wave in a neural mass model. <i>Cognitive Neurodynamics</i> , <b>2015</b> , 9, 31-40	4-2	11
49	Spike coherence and synchronization on Newman-Watts small-world neuronal networks modulated by spike-timing-dependent plasticity. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2015</b> , 419, 307-317	3-3	16
48	Suppression of seizures based on the multi-coupled neural mass model. <i>Chaos</i> , <b>2015</b> , 25, 103120	3-3	7
47	Endogenous field feedback promotes the detectability for exogenous electric signal in the hybrid coupled population. <i>Chaos</i> , <b>2015</b> , 25, 013113	3-3	3
46	Modulation of spike coding by subthreshold extracellular electric fields and neuronal morphology. <i>International Journal of Modern Physics B</i> , <b>2015</b> , 29, 1550148	1-1	1

45	Adaptive stochastic resonance in self-organized small-world neuronal networks with time delay. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2015</b> , 29, 346-358	3.7	17
44	Desynchronization in an ensemble of globally coupled chaotic bursting neuronal oscillators by dynamic delayed feedback control. <i>International Journal of Modern Physics B</i> , <b>2015</b> , 29, 1450235	1.1	3
43	Multiple feature extraction and classification of electroencephalograph signal for Alzheimers' with spectrum and bispectrum. <i>Chaos</i> , <b>2015</b> , 25, 013110	3.3	28
42	Spike-frequency adaptation of a two-compartment neuron modulated by extracellular electric fields. <i>Biological Cybernetics</i> , <b>2015</b> , 109, 287-306	2.8	29
41	Power spectral density and coherence analysis of Alzheimer's EEG. <i>Cognitive Neurodynamics</i> , <b>2015</b> , 9, 291-304	4.2	67
40	Biophysical Insights into How Spike Threshold Depends on the Rate of Membrane Potential Depolarization in Type I and Type II Neurons. <i>PLoS ONE</i> , <b>2015</b> , 10, e0130250	3.7	9
39	Multiple synchronization transitions in scale-free neuronal networks with electrical and chemical hybrid synapses. <i>Chaos, Solitons and Fractals</i> , <b>2014</b> , 59, 1-12	9.3	7
38	Exploring how extracellular electric field modulates neuron activity through dynamical analysis of a two-compartment neuron model. <i>Journal of Computational Neuroscience</i> , <b>2014</b> , 36, 383-99	1.4	30
37	An ephaptic transmission model of CA3 pyramidal cells: an investigation into electric field effects. <i>Cognitive Neurodynamics</i> , <b>2014</b> , 8, 177-97	4.2	5
36	WLPVG approach to the analysis of EEG-based functional brain network under manual acupuncture. <i>Cognitive Neurodynamics</i> , <b>2014</b> , 8, 417-28	4.2	27
35	Effects of DC electric fields on neuronal excitability: A bifurcation analysis. <i>International Journal of Modern Physics B</i> , <b>2014</b> , 28, 1450114	1.1	5
34	Model-based iterative learning control of Parkinsonian state in thalamic relay neuron. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2014</b> , 19, 3255-3266	3.7	11
33	Dynamic analysis of Hodgkin's three classes of neurons exposed to extremely low-frequency sinusoidal induced electric field. <i>Applied Mathematics and Computation</i> , <b>2014</b> , 231, 100-110	2.7	6
32	Delay-induced synchronization transitions in modular scale-free neuronal networks with hybrid electrical and chemical synapses. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2014</b> , 405, 25-34	3.3	12
31	Theoretical analysis of vibrational resonance in a neuron model near a bifurcation point. <i>Physical Review E</i> , <b>2014</b> , 89, 062916	2.4	13
30	Effects of spike-time-dependent plasticity on the stochastic resonance of small-world neuronal networks. <i>Chaos</i> , <b>2014</b> , 24, 033125	3.3	5
29	A combined method to estimate parameters of the thalamocortical model from a heavily noise-corrupted time series of action potential. <i>Chaos</i> , <b>2014</b> , 24, 013128	3.3	3
28	Effects of extremely low-frequency magnetic fields on the response of a conductance-based neuron model. <i>International Journal of Neural Systems</i> , <b>2014</b> , 24, 1450007	6.2	13

27	The implementation of feedforward network on field programmable gate array <b>2014</b> ,		3
26	Ordinal Pattern Based Complexity Analysis for EEG Activity Evoked by Manual Acupuncture in Healthy Subjects. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2014</b> , 24, 1450018	2	5
25	Decreased coherence and functional connectivity of electroencephalograph in Alzheimer's disease. <i>Chaos</i> , <b>2014</b> , 24, 033136	3.3	43
24	Stochastic resonance in small-world neuronal networks with hybrid electrical-chemical synapses. <i>Chaos, Solitons and Fractals</i> , <b>2014</b> , 60, 40-48	9.3	10
23	Neuronal spike initiation modulated by extracellular electric fields. <i>PLoS ONE</i> , <b>2014</b> , 9, e97481	3.7	24
22	Synchronization of neuron population subject to steady DC electric field induced by magnetic stimulation. <i>Cognitive Neurodynamics</i> , <b>2013</b> , 7, 237-52	4.2	16
21	Delayed feedback control of bursting synchronization in small-world neuronal networks. <i>Neurocomputing</i> , <b>2013</b> , 99, 178-187	5.4	27
20	Observer-based tracking control of abnormal oscillations in demyelination symptom. <i>Biomedical Signal Processing and Control</i> , <b>2013</b> , 8, 697-705	4.9	
19	Vibrational resonance in neuron populations with hybrid synapses. <i>Applied Mathematical Modelling</i> , <b>2013</b> , 37, 6311-6324	4.5	22
18	Delay-induced synchronization transitions in small-world neuronal networks with hybrid electrical and chemical synapses. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2013</b> , 392, 5473-5480	3.3	18
17	Multi-scale order recurrence quantification analysis of EEG signals evoked by manual acupuncture in healthy subjects. <i>Cognitive Neurodynamics</i> , <b>2013</b> , 7, 79-88	4.2	23
16	Vibrational resonance in feedforward neuronal network with unreliable synapses. <i>European Physical Journal B</i> , <b>2013</b> , 86, 1	1.2	9
15	The effects of time delay on the synchronization transitions in a modular neuronal network with hybrid synapses. <i>Chaos, Solitons and Fractals</i> , <b>2013</b> , 47, 54-65	9.3	8
14	The effect of extreme low frequency external electric field on the adaptability in the Ermentrout model. <i>Neurocomputing</i> , <b>2012</b> , 81, 67-74	5.4	2
13	Bifurcations in the Hodgkin-Huxley model exposed to DC electric fields. <i>Neurocomputing</i> , <b>2012</b> , 81, 41-48	5.4	13
12	The intrinsic phase response properties of an interneuron model. <i>Neurocomputing</i> , <b>2012</b> , 89, 134-140	5.4	1
11	Adaptive backstepping sliding mode control for chaos synchronization of two coupled neurons in the external electrical stimulation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2012</b> , 17, 1344-1354	3.7	42
10	A new deep brain stimulation waveform based on PWM <b>2011</b> ,		1

9	Synchronization of inhibitory coupled Hindmarsh-Rose neurons via adaptive sliding mode control <b>2011</b> ,		2
8	Parameter estimation in Hodgkin-Huxley model with adaptive method <b>2011</b> ,		2
7	Semi-global robust output regulation of minimum-phase nonlinear systems based on high-gain nonlinear internal model. <i>International Journal of Control</i> , <b>2010</b> , 83, 1009-1024	1.5	3
6	Introducing conditional integrator to sliding mode control of DC/DC buck converter <b>2009</b> ,		2
5	DC/DC Buck Converter Using Internal Model Control. <i>Electric Power Components and Systems</i> , <b>2009</b> , 37, 320-330	1	19
4	Introducing internal model to robust output synchronization of FitzHugh-Nagumo neurons in external electrical stimulation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2009</b> , 14, 3108-3119	3.7	8
3	Robust complete synchronization of electrical coupling neurons under uncertain heterogeneous disturbances using adaptive internal model. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2009</b> , 2009, 3457-60	0.9	
2	Position servo control of brushless DC motor based on the second discrete filter <b>2007</b> ,		3
1	Effects of hyperpolarization-active cation current (I <sub>h</sub> ) on sublinear dendritic integration under applied electric fields. <i>Nonlinear Dynamics</i> , 1	5	0