Zhe Chen

List of Publications by Citations

120 papers	2,318 citations	27 h-index	44 g-index
151 ext. papers	3,123 ext. citations	5.1 avg, IF	5.28 L-index

#	Paper	IF	Citations
120	The cocktail party problem. *Neural Computation*, **2005**, 17, 1875-902	2.9	245
119	Monitoring sleepiness with on-board electrophysiological recordings for preventing sleep-deprived traffic accidents. *Clinical Neurophysiology*, **2007**, 118, 1906-22	4.3	189
118	State-dependent architecture of thalamic reticular subnetworks. *Cell*, **2014**, 158, 808-821	56.2	174
117	Probabilistic Common Spatial Patterns for Multichannel EEG Analysis. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2015**, 37, 639-53	13.3	114
116	Neural representation of spatial topology in the rodent hippocampus. *Neural Computation*, **2014**, 26, 1-39	2.9	89
115	On different facets of regularization theory. *Neural Computation*, **2002**, 14, 2791-846	2.9	88
114	Bayesian Machine Learning: EEG/MEG signal processing measurements. *IEEE Signal Processing Magazine*, **2016**, 33, 14-36	9.4	65
113	Bayesian decoding using unsorted spikes in the rat hippocampus. *Journal of Neurophysiology*, **2014**, 111, 217-27	3.2	64
112	Chronic pain induces generalized enhancement of aversion. *ELife*, **2017**, 6,	8.9	42
111	Statistical inference for assessing functional connectivity of neuronal ensembles with sparse spiking data. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2011**, 19, 121-35	4.8	42
110	Assessment of autonomic control and respiratory sinus arrhythmia using point process models of human heart beat dynamics. *IEEE Transactions on Biomedical Engineering*, **2009**, 56, 1791-802	5	42
109	Dynamic assessment of baroreflex control of heart rate during induction of propofol anesthesia using a point process method. *Annals of Biomedical Engineering*, **2011**, 39, 260-76	4.7	40
108	A hierarchical Bayesian approach for learning sparse spatio-temporal decompositions of multichannel EEG. *NeuroImage*, **2011**, 56, 1929-45	7.9	39
107	Characterizing nonlinear heartbeat dynamics within a point process framework. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 1335-47	5	39
106	Deciphering Neural Codes of Memory during Sleep. *Trends in Neurosciences*, **2017**, 40, 260-275	13.3	38
105	An empirical EEG analysis in brain death diagnosis for adults. *Cognitive Neurodynamics*, **2008**, 2, 257-71	4.2	38
104	An overview of Bayesian methods for neural spike train analysis. *Computational Intelligence and Neuroscience*, **2013**, 2013, 251905	3	36

103	Ketamine reduces aversion in rodent pain models by suppressing hyperactivity of the anterior cingulate cortex. *Nature Communications*, **2018**, 9, 3751	17.4	36
102	Inhibition of HMGB1 mediates neuroprotection of traumatic brain injury by modulating the microglia/macrophage polarization. *Biochemical and Biophysical Research Communications*, **2018**, 497, 430-436	3.4	34
101	Thalamic Circuit Mechanisms Link Sensory Processing in Sleep and Attention. *Frontiers in Neural Circuits*, **2015**, 9, 83	3.5	34
100	Activated RhoA is a positive feedback regulator of the Lbc family of Rho guanine nucleotide exchange factor proteins. *Journal of Biological Chemistry*, **2013**, 288, 11325-33	5.4	33
99	Scaling Up Cortical Control Inhibits Pain. *Cell Reports*, **2018**, 23, 1301-1313	10.6	31
98	Sleep oscillation-specific associations with Alzheimer's disease CSF biomarkers: novel roles for sleep spindles and tau. *Molecular Neurodegeneration*, **2019**, 14, 10	19	30
97	Uncovering spatial topology represented by rat hippocampal population neuronal codes. *Journal of Computational Neuroscience*, **2012**, 33, 227-55	1.4	29
96	Deep Learning Based on Standard H&E Images of Primary Melanoma Tumors Identifies Patients at Risk for Visceral Recurrence and Death. *Clinical Cancer Research*, **2020**, 26, 1126-1134	12.9	29
95	A Bayesian nonparametric approach for uncovering rat hippocampal population codes during spatial navigation. *Journal of Neuroscience Methods*, **2016**, 263, 36-47	3	27
94	Discrete- and continuous-time probabilistic models and algorithms for inferring neuronal UP and DOWN states. *Neural Computation*, **2009**, 21, 1797-862	2.9	27
93	Deciphering neuronal population codes for acute thermal pain. *Journal of Neural Engineering*, **2017**, 14, 036023	5	24
92	Cortical Pain Processing in the Rat Anterior Cingulate Cortex and Primary Somatosensory Cortex. *Frontiers in Cellular Neuroscience*, **2019**, 13, 165	6.1	22
91	Mapping Cortical Integration of Sensory and Affective Pain Pathways. *Current Biology*, **2020**, 30, 1703-1715.e5		22
90	**2007**,		22
89	Anticancer activity in human multiple myeloma U266 cells: synergy between cryptotanshinone and arsenic trioxide. *Metallomics*, **2013**, 5, 871-8	4.5	20
88	A deep learning approach for real-time detection of sleep spindles. *Journal of Neural Engineering*, **2019**, 16, 036004	5	18
87	Quinone reductase (QR) inducers from Andrographis paniculata and identification of molecular target of andrographolide. *Fitoterapia*, **2012**, 83, 1506-13	3.2	18
86	Uncovering representations of sleep-associated hippocampal ensemble spike activity. *Scientific Reports*, **2016**, 6, 32193	4.9	17

85	Data Science in the Research Domain Criteria Era: Relevance of Machine Learning to the Study of Stress Pathology, Recovery, and Resilience. *Chronic Stress*, **2018**, 2,	3	16
84	Real-time particle filtering and smoothing algorithms for detecting abrupt changes in neural ensemble spike activity. *Journal of Neurophysiology*, **2018**, 119, 1394-1410	3.2	14
83	Estimating state and parameters in state space models of spike trains137-159		14
82	Advanced EEG Signal Processing in Brain Death Diagnosis **2008**, 275-298		14
81	Adenoviral delivery of the EMX2 gene suppresses growth in human gastric cancer. *PLoS ONE*, **2012**, 7, e45970	3.7	13
80	Rate and Temporal Coding Mechanisms in the Anterior Cingulate Cortex for Pain Anticipation. *Scientific Reports*, **2018**, 8, 8298	4.9	13
79	In vivo and in vitro study on the role of 3,3′-diindolylmethane in treatment and prevention of nasopharyngeal carcinoma. *Carcinogenesis*, **2013**, 34, 1815-21	4.6	12
78	A probabilistic framework for learning robust common spatial patterns. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 4658-61	0.9	12
77	Stochastic correlative learning algorithms. *IEEE Transactions on Signal Processing*, **2004**, 52, 2200-2209	4.8	12
76	A Novel Nonparametric Approach for Neural Encoding and Decoding Models of Multimodal Receptive Fields. *Neural Computation*, **2016**, 28, 1356-87	2.9	12
75	Local field potential decoding of the onset and intensity of acute pain in rats. *Scientific Reports*, **2018**, 8, 8299	4.9	12
74	Indole-3-carbinol inhibits cell proliferation and induces apoptosis in Hep-2 laryngeal cancer cells. *Oncology Reports*, **2013**, 30, 227-33	3.5	11
73	Transductive neural decoding for unsorted neuronal spikes of rat hippocampus. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 1310-3	0.9	11
72	A Study of Probabilistic Models for Characterizing Human Heart Beat Dynamics in Autonomic Blockade Control. *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, **2008**, 481-484	1.6	11
71	State space model. *Scholarpedia Journal*, **2013**, 8, 30868	1.5	11
70	Deep learning for robust detection of interictal epileptiform discharges. *Journal of Neural Engineering*, **2021**,	5	10
69	The complete mitochondrial genome of Chrysopa pallens (Insecta, Neuroptera, Chrysopidae). *Mitochondrial DNA*, **2012**, 23, 373-5		9
68	Point process time-frequency analysis of dynamic respiratory patterns during meditation practice. *Medical and Biological Engineering and Computing*, **2012**, 50, 261-75	3.1	9

No.	Reference	IF	Cites
67	Ensembles of change-point detectors: implications for real-time BMI applications. *Journal of Computational Neuroscience*, **2019**, 46, 107-124	1.4	9
66	Quickest detection for abrupt changes in neuronal ensemble spiking activity using model-based and model-free approaches **2017**,		8
65	Statistical modeling and analysis of laser-evoked potentials of electrocorticogram recordings from awake humans. *Computational Intelligence and Neuroscience*, **2007**, 2007, 10479	3	8
64	State Space Modeling of Neural Spike Train and Behavioral Data **2010**, 175-218		8
63	Statistical analysis of neuronal population codes for encoding acute pain **2016**,		8
62	Real-Time Readout of Large-Scale Unsorted Neural Ensemble Place Codes. *Cell Reports*, **2018**, 25, 2635-2642.e5	6.6	8
61	Granger causality analysis of rat cortical functional connectivity in pain. *Journal of Neural Engineering*, **2020**, 17, 016050	5	7
60	A Novel Nonparametric Maximum Likelihood Estimator for Probability Density Functions. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2017**, 39, 1294-1308	13.3	7
59	A differential autoregressive modeling approach within a point process framework for non-stationary heartbeat intervals analysis. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 3567-70	0.9	7
58	Characterizing nonlinear heartbeat dynamics within a point process framework. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 2781-4	0.9	7
57	A novel model-based hearing compensation design using a gradient-free optimization method. *Neural Computation*, **2005**, 17, 2648-71	2.9	7
56	Neuromodulation for Pain Management. *Advances in Experimental Medicine and Biology*, **2019**, 1101, 207-223	3.6	7
55	A Primer on Neural Signal Processing. *IEEE Circuits and Systems Magazine*, **2017**, 17, 33-50	3.2	6
54	Dynamics of motor cortical activity during naturalistic feeding behavior. *Journal of Neural Engineering*, **2019**, 16, 026038	5	6
53	A real-time rodent neural interface for deciphering acute pain signals from neuronal ensemble spike activity **2017**,		6
52	Methods for Assessment of Memory Reactivation. *Neural Computation*, **2018**, 30, 2175-2209	2.9	6
51	The complete mitochondrial genome of the Bristletail Songmachilis xinxiangensis (Archaeognatha: Machilidae). *Mitochondrial DNA*, **2013**, 24, 99-101		6
50	Variational Bayesian inference for point process generalized linear models in neural spike trains analysis **2010**,		6

49	Mapping of visual receptive fields by tomographic reconstruction. *Neural Computation*, **2012**, 24, 2543-78	2.9	6
48	Detecting acute pain signals from human EEG. *Journal of Neuroscience Methods*, **2021**, 347, 108964	3	6
47	Exogenous spermine attenuates diabetic kidney injury in rats by inhibiting AMPK/mTOR signaling pathway. *International Journal of Molecular Medicine*, **2021**, 47,	4.4	6
46	A unified point process probabilistic framework to assess heartbeat dynamics and autonomic cardiovascular control. *Frontiers in Physiology*, **2012**, 3, 4	4.6	5
45	Linear and nonlinear quantification of respiratory sinus arrhythmia during propofol general anesthesia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 5336-9	0.9	5
44	An empirical quantitative EEG analysis for evaluating clinical brain death. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 3880-3		5
43	Sleep spindles as a diagnostic and therapeutic target for chronic pain. *Molecular Pain*, **2020**, 16, 1744806920902350	3.4	5
42	Bayesian nonparametric methods for discovering latent structures of rat hippocampal ensemble spikes **2016**,		5
41	Efficient Position Decoding Methods Based on Fluorescence Calcium Imaging in the Mouse Hippocampus. *Neural Computation*, **2020**, 32, 1144-1167	2.9	4
40	Hierarchical Bayesian modeling of inter-trial variability and variational Bayesian learning of common spatial patterns from multichannel EEG **2010**,		4
39	A regularized point process generalized linear model for assessing the functional connectivity in the cat motor cortex. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 5006-9	0.9	4
38	Assessing neuronal interactions of cell assemblies during general anesthesia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 4175-8	0.9	4
37	Assessment of Baroreflex Control of Heart Rate During General Anesthesia Using a Point Process Method. *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, **2009**, 2009, 333-336	1.6	4
36	A prototype closed-loop brain-machine interface for the study and treatment of pain. *Nature Biomedical Engineering*, **2021**,	19	4
35	A Predictive Coding Model for Evoked and Spontaneous Pain Perception. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 2964-2967	0.9	4
34	Dopamine receptor D2 inhibition alleviates diabetic hepatic stellate cells fibrosis by regulating the TGF-β1/Smads and NFκB pathways. *Clinical and Experimental Pharmacology and Physiology*, **2021**, 48, 370-380	3	4
33	Sparse Bayesian inference methods for decoding 3D reach and grasp kinematics and joint angles with primary motor cortical ensembles. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 5930-3	0.9	3
32	Stochastic correlative firing for figure-ground segregation. *Biological Cybernetics*, **2005**, 92, 192-8	2.8	3

31	Predictive coding models for pain perception. *Journal of Computational Neuroscience*, **2021**, 49, 107-127	1.4	3
30	Estimating latent attentional states based on simultaneous binary and continuous behavioral measures. *Computational Intelligence and Neuroscience*, **2015**, 2015, 493769	3	2
29	Instantaneous assessment of autonomic cardiovascular control during general anesthesia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 8444-7	0.9	2
28	Motor cortical networks for skilled movements have dynamic properties that are related to accurate reaching. *Neural Plasticity*, **2011**, 2011, 413543	3.3	2
27	Thalamocortical network connectivity controls spatiotemporal dynamics of cortical and thalamic traveling waves		2
26	Ketamine normalizes high-gamma power in the anterior cingulate cortex in a rat chronic pain model. *Molecular Brain*, **2020**, 13, 129	4.5	2
25	Pharmacological restoration of anti-nociceptive functions in the prefrontal cortex relieves chronic pain. *Progress in Neurobiology*, **2021**, 201, 102001	10.9	2
24	A geometric framework for understanding dynamic information integration in context-dependent computation. *IScience*, **2021**, 24, 102919	6.1	2
23	Stimulus-Driven and Spontaneous Dynamics in Excitatory-Inhibitory Recurrent Neural Networks for Sequence Representation. *Neural Computation*, **2021**, 33, 2603-2645	2.9	2
22	Unfolding representations of trajectory coding in neuronal population spike activity **2017**,		1
21	**2016**,		1
20	A variational nonparametric Bayesian approach for inferring rat hippocampal population codes. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 7092-5	0.9	1
19	A unified point process framework for assessing heartbeat dynamics and cardiovascular control **2009**,		1
18	Improved particle filtering schemes for target tracking		1
17	Analysis of Feasible Solutions of the ICA Problem Under the One-Bit-Matching Condition. *Lecture Notes in Computer Science*, **2006**, 838-845	0.9	1
16	Modified Modulated Hebb-Oja Learning Rule: A Method for Biologically Plausible Principal Component Analysis. *Lecture Notes in Computer Science*, **2007**, 527-536	0.9	1
15	Improving scalability in systems neuroscience. *Neuron*, **2021**, 109, 1776-1790	13.9	1
14	Fear-induced brain activations distinguish anxious and trauma-exposed brains. *Translational Psychiatry*, **2021**, 11, 46	8.6	1