Changsong Zhou

List of Publications by Year
in descending order

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111 papers	9,248 citations	101543 36 h-index	39675 94 g-index
115 all docs	115 docs citations	115 times ranked	5705 citing authors

#	Article	IF	Citations
1	Synchronization in complex networks. Physics Reports, 2008, 469, 93-153.	25.6	2,928
2	Network synchronization, diffusion, and the paradox of heterogeneity. Physical Review E, 2005, 71, 016116.	2.1	455
3	Hierarchical Organization Unveiled by Functional Connectivity in Complex Brain Networks. Physical Review Letters, 2006, 97, 238103.	7.8	426
4	Dynamical Weights and Enhanced Synchronization in Adaptive Complex Networks. Physical Review Letters, 2006, 96, 164102.	7.8	346
5	Universality in the Synchronization of Weighted Random Networks. Physical Review Letters, 2006, 96, 034101.	7.8	301
6	Array-Enhanced Coherence Resonance: Nontrivial Effects of Heterogeneity and Spatial Independence of Noise. Physical Review Letters, 2001, 87, 098101.	7.8	274
7	Cortical hubs form a module for multisensory integration on top of the hierarchy of cortical networks. Frontiers in Neuroinformatics, 2010, 4, 1.	2.5	272
8	Evidence for a bimodal distribution in human communication. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18803-18808.	7.1	219
9	Noise-Induced Phase Synchronization and Synchronization Transitions in Chaotic Oscillators. Physical Review Letters, 2002, 88, 230602.	7.8	216
10	Understanding Structural-Functional Relationships in the Human Brain. Neuroscientist, 2015, 21, 290-305.	3.5	173
11	Residue iteration decomposition (RIDE): A new method to separate ERP components on the basis of latency variability in single trials. Psychophysiology, 2011, 48, 1631-1647.	2.4	166
12	Phase synchronization in coupled nonidentical excitable systems and array-enhanced coherence resonance. Physical Review E, 2000, 61, R1001-R1004.	2.1	161
13	Noise-induced synchronization and coherence resonance of a Hodgkinâ€“Huxley model of thermally sensitive neurons. Chaos, 2003, 13, 401-409.	2.5	157
14	Three Types of Transitions to Phase Synchronization in Coupled Chaotic Oscillators. Physical Review Letters, 2003, 91, 024101.	7.8	146
15	Structureâ€“function relationship in complex brain networks expressed by hierarchical synchronization. New Journal of Physics, 2007, 9, 178-178.	2.9	145
16	A toolbox for residue iteration decomposition (RIDE)â€”A method for the decomposition, reconstruction, and single trial analysis of event related potentials. Journal of Neuroscience Methods, 2015, 250, 7-21.	2.5	133
17	Testing the stimulus-to-response bridging function of the oddball-P3 by delayed response signals and residue iteration decomposition (RIDE). NeuroImage, 2014, 100, 271-280.	4.2	130
18	Noise-Enhanced Phase Synchronization of Chaotic Oscillators. Physical Review Letters, 2002, 89, 014101.	7.8	117

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19	Structural and functional clusters of complex brain networks. Physica D: Nonlinear Phenomena, 2006, 224, 202-212.	2.8	116
20	Hierarchical synchronization in complex networks with heterogeneous degrees. Chaos, 2006, 16, 015104.	2.5	113
21	Exploiting the intra-subject latency variability from single-trial event-related potentials in the P3 time range: A review and comparative evaluation of methods. Neuroscience and Biobehavioral Reviews, 2017, 75, 1-21.	6.1	106
22	Updating and validating a new framework for restoring and analyzing latencyâ€variable ERP components from single trials with residue iteration decomposition (RIDE). Psychophysiology, 2015, 52, 839-856.	2.4	95
23	Exploring Brain Function from Anatomical Connectivity. Frontiers in Neuroscience, 2011, 5, 83.	2.8	92
24	Trade-off between Multiple Constraints Enables Simultaneous Formation of Modules and Hubs in Neural Systems. PLoS Computational Biology, 2013, 9, e1002937.	3.2	91
25	Segregation, integration, and balance of large-scale resting brain networks configure different cognitive abilities. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	88
26	Functional complexity emerging from anatomical constraints in the brain: the significance of network modularity and rich-clubs. Scientific Reports, 2016, 6, 38424.	3.3	87
27	Sustained activity in hierarchical modular neural networks: self-organized criticality and oscillations. Frontiers in Computational Neuroscience, 2011, 5, 30.	2.1	82
28	Graph analysis of cortical networks reveals complex anatomical communication substrate. Chaos, 2009, 19, 015117.	2.5	79
29	Overcoming limitations of the <scp>ERP</scp> method with <scp>R</scp>esidue <scp>I</scp>teration <scp>D</scp>ecomposition (<scp>RIDE</scp>): A demonstration in go/noâ€go experiments. Psychophysiology, 2013, 50, 253-265.	2.4	74
30	Hierarchical Connectome Modes and Critical State Jointly Maximize Human Brain Functional Diversity. Physical Review Letters, 2019, 123, 038301.	7.8	73
31	Frequency and phase locking of noise-sustained oscillations in coupled excitable systems: Array-enhanced resonances. Physical Review E, 2003, 67, 030101.	2.1	63
32	Hierarchical modular structure enhances the robustness of self-organized criticality in neural networks. New Journal of Physics, 2012, 14, 023005.	2.9	58
33	Reconstructing ERP amplitude effects after compensating for trial-to-trial latency jitter: A solution based on a novel application of residue iteration decomposition. International Journal of Psychophysiology, 2016, 109, 9-20.	1.0	45
34	Understanding the computation of time using neural network models. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10530-10540.	7.1	42
35	Synchronization in small-world networks. Chaos, 2008, 18, 037111.	2.5	41
36	Spatiotemporal coherence resonance of phase synchronization in weakly coupled chaotic oscillators. Physical Review E, 2002, 65, 040101.	2.1	40

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37	Reciprocity of networks with degree correlations and arbitrary degree sequences. Physical Review E, 2008, 77, 016106.	2.1	39
38	Features of spatial and functional segregation and integration of the primate connectome revealed by trade-off between wiring cost and efficiency. PLoS Computational Biology, 2017, 13, e1005776.	3.2	39
39	Complexity versus modularity and heterogeneity in oscillatory networks: Combining segregation and integration in neural systems. Physical Review E, 2010, 82, 046225.	2.1	35
40	Global attractors and the difficulty of synchronizing serial spin-torque oscillators. Physical Review B, 2010, 82, .	3.2	34
41	Assessing spatiotemporal variability of brain spontaneous activity by multiscale entropy and functional connectivity. NeuroImage, 2019, 198, 198-220.	4.2	34
42	Interplay between structure and dynamics in adaptive complex networks: Emergence and amplification of modularity by adaptive dynamics. Physical Review E, 2011, 84, 016116.	2.1	33
43	Relative clock verifies endogenous bursts of human dynamics. Europhysics Letters, 2012, 97, 18006.	2.0	33
44	Cortex-Wide Dynamics of Intrinsic Electrical Activities: Propagating Waves and Their Interactions. Journal of Neuroscience, 2021, 41, 3665-3678.	3.6	33
45	Unfolding large-scale online collaborative human dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14627-14632.	7.1	32
46	Organization of Anti-Phase Synchronization Pattern in Neural Networks: What are the Key Factors?. Frontiers in Systems Neuroscience, 2011, 5, 100.	2.5	31
47	Co-emergence of multi-scale cortical activities of irregular firing, oscillations and avalanches achieves cost-efficient information capacity. PLoS Computational Biology, 2017, 13, e1005384.	3.2	30
48	Stochastic Oscillation in Self-Organized Critical States of Small Systems: Sensitive Resting State in Neural Systems. Physical Review Letters, 2016, 116, 018101.	7.8	29
49	Weighted networks are more synchronizable: how and why. AIP Conference Proceedings, 2005, , .	0.4	28
50	Mapping from structure to dynamics: A unified view of dynamical processes on networks. Physical Review E, 2010, 82, 026116.	2.1	28
51	Better synchronizability in generalized adaptive networks. Physical Review E, 2010, 81, 026201.	2.1	28
52	Separating stimulusâ€driven and responseâ€related <scp>LRP</scp> components with Residue Iteration Decomposition (<scp>RIDE</scp>). Psychophysiology, 2013, 50, 70-73.	2.4	28
53	Articulation Artifacts During Overt Language Production in Event-Related Brain Potentials: Description and Correction. Brain Topography, 2016, 29, 791-813.	1.8	25
54	Human comment dynamics in on-line social systems. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 5832-5837.	2.6	23

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55	Hopf Bifurcation in Mean Field Explains Critical Avalanches in Excitation-Inhibition Balanced Neuronal Networks: A Mechanism for Multiscale Variability. Frontiers in Systems Neuroscience, 2020, 14, 580011.	2.5	23
56	Competition between intra-community and inter-community synchronization and relevance in brain cortical networks. Physical Review E, 2011, 84, 016109.	2.1	22
57	Coupled perturbed heteroclinic cycles: Synchronization and dynamical behaviors of spin-torque oscillators. Physical Review B, 2011, 84, .	3.2	21
58	Spatial multi-scaled chimera states of cerebral cortex network and its inherent structure-dynamics relationship in human brain. National Science Review, 2021, 8, nwaa125.	9.5	21
59	Fractional locking of spin-torque oscillator by injected ac current. Physical Review B, 2011, 83, .	3.2	19
60	Noise-Sustained Coherent Oscillation of Excitable Media in a Chaotic Flow. Physical Review Letters, 2003, 91, 150601.	7.8	18
61	Multiple synchronization attractors of serially connected spin-torque nanooscillators. Physical Review B, 2012, 86, .	3.2	18
62	Structural encoding processes contribute to individual differences in face and object cognition: Inferences from psychometric test performance and event-related brain potentials. Cortex, 2017, 95, 192-210.	2.4	18
63	The reliability and psychometric structure of Multi-Scale Entropy measured from EEG signals at rest and during face and object recognition tasks. Journal of Neuroscience Methods, 2019, 326, 108343.	2.5	18
64	Predicting reading ability from brain anatomy and function: From areas to connections. NeuroImage, 2020, 218, 116966.	4.2	18
65	Enhanced synchronizability in scale-free networks. Chaos, 2009, 19, 013105.	2.5	16
66	The role of coupling connections in a model of the cortico-basal ganglia-thalamocortical neural loop for the generation of beta oscillations. Neural Networks, 2020, 123, 381-392.	5.9	16
67	Re-Examination of Chinese Semantic Processing and Syntactic Processing: Evidence from Conventional ERPs and Reconstructed ERPs by Residue Iteration Decomposition (RIDE). PLoS ONE, 2015, 10, e0117324.	2.5	15
68	Individual Cortical Entropy Profile: Testâ€“Retest Reliability, Predictive Power for Cognitive Ability, and Neuroanatomical Foundation. Cerebral Cortex Communications, 2020, 1, tgaa015.	1.6	15
69	Synchronization regimes in coupled noisy excitable systems. Physical Review E, 2001, 63, 026201.	2.1	14
70	Characterizing the complexity of brain and mind networks. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 3730-3747.	3.4	13
71	Delayed Feedback-Based Suppression of Pathological Oscillations in a Neural Mass Model. IEEE Transactions on Cybernetics, 2021, 51, 5046-5056.	9.5	13
72	Characterizing the brainâ€™s dynamical response from scalp-level neural electrical signals: a review of methodology development. Cognitive Neurodynamics, 2020, 14, 731-742.	4.0	13

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73	Gamma Oscillations Facilitate Effective Learning in Excitatory-Inhibitory Balanced Neural Circuits. Neural Plasticity, 2021, 2021, 1-18.	2.2	12
74	Patterns of individual differences in fiber tract integrity of the face processing brain network support neurofunctional models. NeuroImage, 2020, 204, 116229.	4.2	11
75	Dissociating the Influence of Affective Word Content and Cognitive Processing Demands on the Late Positive Potential. Brain Topography, 2016, 29, 82-93.	1.8	10
76	Information encoding in an oscillatory network. Physical Review E, 2009, 79, 061910.	2.1	9
77	Less is more: wiring-economical modular networks support self-sustained firing-economical neural avalanches for efficient processing. National Science Review, 2022, 9, nwab102.	9.5	9
78	Criticality enhances the multilevel reliability of stimulus responses in cortical neural networks. PLoS Computational Biology, 2022, 18, e1009848.	3.2	9
79	Symmetry-breaking on-off intermittency under modulation: Robustness of supersensitivity, resonance, and information gain. Physical Review E, 2000, 62, 1983-1987.	2.1	8
80	Complex brain networks: From topological communities to clustered dynamics. Pramana - Journal of Physics, 2008, 70, 1087-1097.	1.8	8
81	Mathematical Modeling for Description of Oscillation Suppression Induced by Deep Brain Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1649-1658.	4.9	8
82	Adaptive Reconfiguration of Intrinsic Community Structure in Children with 5-Year Abacus Training. Cerebral Cortex, 2021, 31, 3122-3135.	2.9	8
83	Network Evolution Induced by Asynchronous Stimuli through Spike-Timing-Dependent Plasticity. PLoS ONE, 2013, 8, e84644.	2.5	8
84	Synaptic changes modulate spontaneous transitions between tonic and bursting neural activities in coupled Hindmarsh-Rose neurons. Physical Review E, 2021, 104, 054407.	2.1	8
85	A Large-Scale High-Density Weighted Structural Connectome of the Macaque Brain Acquired by Predicting Missing Links. Cerebral Cortex, 2020, 30, 4771-4789.	2.9	7
86	Nature and nurture shape structural connectivity in the face processing brain network. NeuroImage, 2021, 229, 117736.	4.2	7
87	Closing the loop of DBS using the beta oscillations in cortex. Cognitive Neurodynamics, 2021, 15, 1157-1167.	4.0	7
88	Acute stress promotes brain network integration and reduces state transition variability. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	7
89	Spike Pattern Structure Influences Synaptic Efficacy Variability under STDP and Synaptic Homeostasis. I: Spike Generating Models on Converging Motifs. Frontiers in Computational Neuroscience, 2016, 10, 14.	2.1	6
90	Neuroanatomic localization of priming effects for famous faces with latency-corrected event-related potentials. Brain Research, 2016, 1632, 58-72.	2.2	6

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91	Repetition Priming Effects for Famous Faces through Dynamic Causal Modelling of Latencyâ€Corrected Eventâ€Related Brain Potentials. European Journal of Neuroscience, 2018, 49, 1330-1347.	2.6	6
92	Cognitive Performance in Young APOE Îµ4 Carriers: A Latent Variable Approach for Assessing the Genotypeâ€“Phenotype Relationship. Behavior Genetics, 2019, 49, 455-468.	2.1	6
93	What Does Temporal Brain Signal Complexity Reveal About Verbal Creativity?. Frontiers in Behavioral Neuroscience, 2020, 14, 146.	2.0	6
94	A model of microsaccade-related neural responses induced by short-term depression in thalamocortical synapses. Frontiers in Computational Neuroscience, 2013, 7, 47.	2.1	5
95	COMT genotype is differentially associated with single trial variability of ERPs as a function of memory type. Biological Psychology, 2017, 127, 209-219.	2.2	5
96	Association of aerobic glycolysis with the structural connectome reveals a benefitâ€“risk balancing mechanism in the human brain. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2013232118.	7.1	5
97	Exploring Neural Signal Complexity as a Potential Link between Creative Thinking, Intelligence, and Cognitive Control. Journal of Intelligence, 2021, 9, 59.	2.5	5
98	Lifespan associations of resting-state brain functional networks with ADHD symptoms. IScience, 2022, 25, 104673.	4.1	5
99	Fast response and high sensitivity to microsaccades in a cascading-adaptation neural network with short-term synaptic depression. Physical Review E, 2016, 93, 042302.	2.1	4
100	Dynamic Configuration of Coactive Micropatterns in the Default Mode Network During Wakefulness and Sleep. Brain Connectivity, 2021, 11, 471-482.	1.7	4
101	Noise, Synchronization and Coherence in Chaotic Oscillators. International Journal of Modern Physics B, 2003, 17, 4023-4044.	2.0	3
102	Resonant patterns in noisy active media. Physical Review E, 2004, 69, 056210.	2.1	3
103	Finding type and location of the source of cardiac arrhythmias from the averaged flow velocity field using the determinant-trace method. Physical Review E, 2021, 104, 064401.	2.1	3
104	Multimodal Evidence of Atypical Processing of Eye Gaze and Facial Emotion in Children With Autistic Traits. Frontiers in Human Neuroscience, 2022, 16, 733852.	2.0	3
105	Spike Pattern Structure Influences Synaptic Efficacy Variability under STDP and Synaptic Homeostasis. II: Spike Shuffling Methods on LIF Networks. Frontiers in Computational Neuroscience, 2016, 10, 83.	2.1	2
106	Model predictions of features in microsaccade-related neural responses in a feedforward network with short-term synaptic depression. Scientific Reports, 2016, 6, 20888.	3.3	2
107	Sex differences in behavioral and brain responses to incongruity in emotional speech controlling for autistic traits. Biological Psychology, 2020, 157, 107973.	2.2	2
108	Rational designing of oscillatory rhythmicity for memory rescue in plasticity-impaired learning networks. Cell Reports, 2022, 39, 110678.	6.4	2

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109	Rate-synchrony relationship between input and output of spike trains in neuronal networks. Physical Review E, 2010, 81, 011917.	2.1	1
110	What do neuroanatomical networks reveal about the ontology of human cognitive abilities?. IScience, 2022, 25, 104706.	4.1	1
111	Restoring Latency-Variable ERP Components from Single Trials: A New Approach to ERP Analysis with Residue Iteration Decomposition (RIDE). Advances in Cognitive Neurodynamics, 2016, , 519-525.	0.1	0