Kazuyuki Aihara

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Chaotic neural networks. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 144, 333-340.	0.9	1,150
2	Chaotic simulated annealing by a neural network model with transient chaos. Neural Networks, 1995, 8, 915-930.	3.3	631
3	Detecting early-warning signals for sudden deterioration of complex diseases by dynamical network biomarkers. Scientific Reports, 2012, 2, 342.	1.6	494
4	A coherent Ising machine for 2000-node optimization problems. Science, 2016, 354, 603-606.	6.0	469
5	A fully programmable 100-spin coherent Ising machine with all-to-all connections. Science, 2016, 354, 614-617.	6.0	427
6	Stability of genetic regulatory networks with time delay. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 602-608.	0.1	364
7	Associative Dynamics in a Chaotic Neural Network. Neural Networks, 1997, 10, 83-98.	3.3	357
8	Early Diagnosis of Complex Diseases by Molecular Biomarkers, Network Biomarkers, and Dynamical Network Biomarkers. Medicinal Research Reviews, 2014, 34, 455-478.	5.0	252
9	Dynamical Cell Assembly Hypothesis â€" Theoretical Possibility of Spatio-temporal Coding in the Cortex. Neural Networks, 1996, 9, 1303-1350.	3.3	251
10	Personalized characterization of diseases using sample-specific networks. Nucleic Acids Research, 2016, 44, e164-e164.	6.5	226
11	Cryptosystems with discretized chaotic maps. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 28-40.	0.1	221
12	Chaos and phase locking in normal squid axons. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 123, 162-166.	0.9	173
13	Periodic and non-periodic responses of a periodically forced Hodgkin-Huxley oscillator. Journal of Theoretical Biology, 1984, 109, 249-269.	0.8	162
14	Non-Gaussian power grid frequency fluctuations characterized by LÃ©vy-stable laws and superstatistics. Nature Energy, 2018, 3, 119-126.	19.8	158
15	Identifying critical transitions and their leading biomolecular networks in complex diseases. Scientific Reports, 2012, 2, 813.	1.6	155
16	Bayesian Inference Explains Perception of Unity and Ventriloquism Aftereffect: Identification of Common Sources of Audiovisual Stimuli. Neural Computation, 2007, 19, 3335-3355.	1.3	151
17	Molecular Communication through Stochastic Synchronization Induced by Extracellular Fluctuations. Physical Review Letters, 2005, 95, 178103.	2.9	138
18	Chaos and asymptotical stability in discrete-time neural networks. Physica D: Nonlinear Phenomena, 1997, 104, 286-325.	1.3	137

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19	Potential anti-COVID-19 agents, cepharanthine and nelfinavir, and their usage for combination treatment. IScience, 2021, 24, 102367.	1.9	126
20	A Mathematical Model of Intermittent Androgen Suppression for Prostate Cancer. Journal of Nonlinear Science, 2008, 18, 593-614.	1.0	125
21	Complex-valued forecasting of wind profile. Renewable Energy, 2006, 31, 1733-1750.	4.3	122
22	Synchronization of coupled nonidentical genetic oscillators. Physical Biology, 2006, 3, 37-44.	0.8	120
23	Development of a mathematical model that predicts the outcome of hormone therapy for prostate cancer. Journal of Theoretical Biology, 2010, 264, 517-527.	0.8	120
24	Coherent Ising machinesâ€"optical neural networks operating at the quantum limit. Npj Quantum Information, 2017, 3, .	2.8	120
25	Uncovering signal transduction networks from high-throughput data by integer linear programming. Nucleic Acids Research, 2008, 36, e48-e48.	6.5	118
26	Global searching ability of chaotic neural networks. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1999, 46, 974-993.	0.1	113
27	Protein classification with imbalanced data. Proteins: Structure, Function and Bioinformatics, 2008, 70, 1125-1132.	1.5	109
28	Complex-valued prediction of wind profile using augmented complex statistics. Renewable Energy, 2009, 34, 196-201.	4.3	104
29	Dynamical robustness in complex networks: the crucial role of low-degree nodes. Scientific Reports, 2012, 2, 232.	1.6	101
30	A quantitative model used to compare within-host SARS-CoV-2, MERS-CoV, and SARS-CoV dynamics provides insights into the pathogenesis and treatment of SARS-CoV-2. PLoS Biology, 2021, 19, e3001128.	2.6	99
31	Chaos engineering and its application to parallel distributed processing with chaotic neural networks. Proceedings of the IEEE, 2002, 90, 919-930.	16.4	98
32	Combination of Chaotic Neurodynamics with the 2-opt Algorithm to Solve Traveling Salesman Problems. Physical Review Letters, 1997, 79, 2344-2347.	2.9	95
33	Global bifurcation structure of chaotic neural networks and its application to traveling salesman problems. Neural Networks, 1997, 10, 1673-1690.	3.3	94
34	Detection for disease tipping points by landscape dynamic network biomarkers. National Science Review, 2019, 6, 775-785.	4.6	94
35	Structures of attractors in periodically forced neural oscillators. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 116, 313-317.	0.9	93
36	Chaos engineering in Japan. Communications of the ACM, 1995, 38, 103-107.	3.3	90

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37	Theory of hybrid dynamical systems and its applications to biological and medical systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 4893-4914.	1.6	90
38	Quantifying critical states of complex diseases using single-sample dynamic network biomarkers. PLoS Computational Biology, 2017, 13, e1005633.	1.5	90
39	12. Chaotic oscillations and bifurcations in squid giant axons. , 1986, , 257-270.		83
40	A model of periodic oscillation for genetic regulatory systems. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 1429-1436.	0.1	83
41	Noise-induced cooperative behavior in a multicell system. Bioinformatics, 2005, 21, 2722-2729.	1.8	82
42	Identifying critical transitions of complex diseases based on a single sample. Bioinformatics, 2014, 30, 1579-1586.	1.8	82
43	Solving large scale traveling salesman problems by chaotic neurodynamics. Neural Networks, 2002, 15, 271-283.	3.3	80
44	Identifying early-warning signals of critical transitions with strong noise by dynamical network markers. Scientific Reports, 2015, 5, 17501.	1.6	80
45	APOBEC3D and APOBEC3F Potently Promote HIV-1 Diversification and Evolution in Humanized Mouse Model. PLoS Pathogens, 2014, 10, e1004453.	2.1	79
46	Mathematical modelling of prostate cancer growth and its application to hormone therapy. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 5029-5044.	1.6	78
47	Quaternion-valued short-term joint forecasting of three-dimensional wind and atmospheric parameters. Renewable Energy, 2011, 36, 1754-1760.	4.3	78
48	Model Reduction and Clusterization of Large-Scale Bidirectional Networks. IEEE Transactions on Automatic Control, 2014, 59, 48-63.	3.6	76
49	An alternating periodic-chaotic sequence observed in neural oscillators. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 111, 251-255.	0.9	75
50	Gene function prediction using labeled and unlabeled data. BMC Bioinformatics, 2008, 9, 57.	1.2	74
51	Modeling Biomolecular Networks in Cells. , 2010, , .		74
52	Detecting Causality from Nonlinear Dynamics with Short-term Time Series. Scientific Reports, 2014, 4, 7464.	1.6	73
53	Reproduction of distance matrices and original time series from recurrence plots and their applications. European Physical Journal: Special Topics, 2008, 164, 13-22.	1.2	65
54	Dynamical network biomarkers for identifying critical transitions and their driving networks of biologic processes. Quantitative Biology, 2013, 1, 105-114.	0.3	62

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55	Destabilization of Local Minima in Analog Spin Systems by Correction of Amplitude Heterogeneity. Physical Review Letters, 2019, 122, 040607.	2.9	57
56	Hunt for the tipping point during endocrine resistance process in breast cancer by dynamic network biomarkers. Journal of Molecular Cell Biology, 2019, 11, 649-664.	1.5	57
57	Neuron-synapse ic chip-set for large-scale chaotic neural networks. IEEE Transactions on Neural Networks, 2003, 14, 1393-1404.	4.8	55
58	Amoeba-based neurocomputing with chaotic dynamics. Communications of the ACM, 2007, 50, 69-72.	3.3	55
59	Spatio-Temporal Dynamics in Collective Frog Choruses Examined by Mathematical Modeling and Field Observations. Scientific Reports, 2014, 4, 3891.	1.6	55
60	Bridging Rate Coding and Temporal Spike Coding by Effect of Noise. Physical Review Letters, 2002, 88, 248101.	2.9	54
61	A CMOS Spiking Neural Network Circuit with Symmetric/Asymmetric STDP Function. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2009, E92-A, 1690-1698.	0.2	52
62	Controlling a chaotic neural network for information processing. Neurocomputing, 2013, 110, 111-120.	3.5	51
63	Dynamical robustness of coupled heterogeneous oscillators. Physical Review E, 2014, 89, 052906.	0.8	51
64	A method to determine the duration of the eclipse phase for in vitro infection with a highly pathogenic SHIV strain. Scientific Reports, 2015, 5, 10371.	1.6	51
65	Randomly distributed embedding making short-term high-dimensional data predictable. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9994-E10002.	3.3	51
66	Pulse propagation networks: A neural network model that uses temporal coding by action potentials. Neural Networks, 1993, 6, 203-215.	3.3	50
67	Identifying hidden common causes from bivariate time series: A method using recurrence plots. Physical Review E, 2010, 81, 016203.	0.8	50
68	Autoreservoir computing for multistep ahead prediction based on the spatiotemporal information transformation. Nature Communications, 2020, 11, 4568.	5.8	49
69	The role of chaotic resonance in cerebellar learning. Neural Networks, 2010, 23, 836-842.	3.3	48
70	Deterministic prediction and chaos in squid axon response. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 169, 41-45.	0.9	47
71	Array-enhanced coherence resonance and forced dynamics in coupled FitzHugh-Nagumo neurons with noise. Physical Review E, 2002, 65, 051906.	0.8	47
72	Dynamics of gene regulatory networks with cell division cycle. Physical Review E, 2004, 70, 011909.	0.8	47

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73	A nonlinear model with competition between prostate tumor cells and its application to intermittent androgen suppression therapy of prostate cancer. Mathematical Biosciences, 2008, 214, 134-139.	0.9	47
74	Partial cross mapping eliminates indirect causal influences. Nature Communications, 2020, 11, 2632.	5.8	47
75	BIFURCATIONS IN TWO-DIMENSIONAL HINDMARSHâ€"ROSE TYPE MODEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 985-998.	0.7	46
76	Duality of Rate Coding and Temporal Coding in Multilayered Feedforward Networks. Neural Computation, 2003, 15, 103-125.	1.3	45
77	Adaptive annealing for chaotic optimization. Physical Review E, 1998, 58, 5157-5160.	0.8	44
78	Time series analysis and prediction on complex dynamical behavior observed in a blast furnace. Physica D: Nonlinear Phenomena, 2000, 135, 305-330.	1.3	43
79	Identifying pre-disease signals before metabolic syndrome in mice by dynamical network biomarkers. Scientific Reports, 2019, 9, 8767.	1.6	43
80	Associative memory with a controlled chaotic neural network. Neurocomputing, 2008, 71, 2794-2805.	3.5	42
81	Clustered model reduction of positive directed networks. Automatica, 2015, 59, 238-247.	3.0	42
82	Temporally coherent organization and instabilities in squid giant axons. Journal of Theoretical Biology, 1982, 95, 697-720.	0.8	41
83	DEFINITION OF DISTANCE FOR MARKED POINT PROCESS DATA AND ITS APPLICATION TO RECURRENCE PLOT-BASED ANALYSIS OF EXCHANGE TICK DATA OF FOREIGN CURRENCIES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 3699-3708.	0.7	41
84	Coherent Response in a Chaotic Neural Network. Neural Processing Letters, 2000, 12, 49-58.	2.0	40
85	Mathematical modeling of frogsâ€™ calling behavior and its possible application to artificial life and robotics. Artificial Life and Robotics, 2008, 12, 29-32.	0.7	40
86	Combinatorial optimization using dynamical phase transitions in driven-dissipative systems. Physical Review E, 2017, 95, 022118.	0.8	40
87	Random and Targeted Interventions for Epidemic Control in Metapopulation Models. Scientific Reports, 2015, 4, 5522.	1.6	39
88	Transient Resetting: A Novel Mechanism for Synchrony and Its Biological Examples. PLoS Computational Biology, 2006, 2, e103.	1.5	38
89	Bifurcation analysis on a hybrid systems model of intermittent hormonal therapy for prostate cancer. Physica D: Nonlinear Phenomena, 2008, 237, 2616-2627.	1.3	38
90	Chaos and Its Applications. Procedia IUTAM, 2012, 5, 199-203.	1.2	38

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91	Photoplethysmogram at green light: Where does chaos arise from?. Chaos, Solitons and Fractals, 2018, 116, 157-165.	2.5	38
92	A discriminative approach for identifying domainâ€"domain interactions from proteinâ€"protein interactions. Proteins: Structure, Function and Bioinformatics, 2010, 78, 1243-1253.	1.5	37
93	Stability and bifurcation analysis of differential-difference-algebraic equations. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2001, 48, 308-326.	0.1	36
94	Analog computation through high-dimensional physical chaotic neuro-dynamics. Physica D: Nonlinear Phenomena, 2008, 237, 1215-1225.	1.3	36
95	Amoeba-based Chaotic Neurocomputing: Combinatorial Optimization by Coupled Biological Oscillators. New Generation Computing, 2009, 27, 129-157.	2.5	36
96	Performance evaluation of coherent Ising machines against classical neural networks. Quantum Science and Technology, 2017, 2, 044002.	2.6	34
97	Protein function prediction with high-throughput data. Amino Acids, 2008, 35, 517-530.	1.2	33
98	Identifying critical differentiation state of MCF-7 cells for breast cancer by dynamical network biomarkers. Frontiers in Genetics, 2015, 6, 252.	1.1	33
99	Quantum model for coherent Ising machines: Discrete-time measurement feedback formulation. Physical Review A, 2017, 96, .	1.0	33
100	Reconstructing state spaces from multivariate data using variable delays. Physical Review E, 2006, 74, 026202.	0.8	32
101	Quantitative mathematical modeling of PSA dynamics of prostate cancer patients treated with intermittent androgen suppression. Journal of Molecular Cell Biology, 2012, 4, 127-132.	1.5	32
102	Detection of significant antiviral drug effects on COVID-19 with reasonable sample sizes in randomized controlled trials: A modeling study. PLoS Medicine, 2021, 18, e1003660.	3.9	32
103	Modeling and Analyzing Biological Oscillations in Molecular Networks. Proceedings of the IEEE, 2008, 96, 1361-1385.	16.4	31
104	Piecewise affine systems modelling for optimizing hormone therapy of prostate cancer. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 5045-5059.	1.6	31
105	Dynamics between order and chaos in conceptual models of glacial cycles. Climate Dynamics, 2014, 42, 3087-3099.	1.7	31
106	Boltzmann Sampling by Degenerate Optical Parametric Oscillator Network for Structure-Based Virtual Screening. Entropy, 2016, 18, 365.	1.1	31
107	A mixed analog/digital chaotic neuro-computer system for quadratic assignment problems. Neural Networks, 2005, 18, 505-513.	3.3	30
108	Threshold control of chaotic neural network. Neural Networks, 2008, 21, 114-121.	3.3	30

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109	Chaotic Boltzmann machines. Scientific Reports, 2013, 3, 1610.	1.6	30
110	Hybrid optimal scheduling for intermittent androgen suppression of prostate cancer. Chaos, 2010, 20, 045125.	1.0	29
111	Improving time series prediction of solar irradiance after sunrise: Comparison among three methods for time series prediction. Solar Energy, 2017, 149, 294-301.	2.9	29
112	Dynamical network biomarkers: Theory and applications. Gene, 2022, 808, 145997.	1.0	29
113	Analysis of neural spike trains with interspike interval reconstruction. Biological Cybernetics, 2000, 82, 305-311.	0.6	28
114	Surrogate analysis for detecting nonlinear dynamics in normal vowels. Journal of the Acoustical Society of America, 2001, 110, 3207-3217.	0.5	28
115	Strange attractors in chaotic neural networks. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2000, 47, 1455-1468.	0.1	27
116	Model predictive control for optimally scheduling intermittent androgen suppression of prostate cancer. Methods, 2014, 67, 278-281.	1.9	27
117	Understanding migraine using dynamic network biomarkers. Cephalalgia, 2015, 35, 627-630.	1.8	27
118	A SIMPLE GEOMETRICAL STRUCTURE UNDERLYING SPEECH SIGNALS OF THE JAPANESE VOWEL /a/. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 149-160.	0.7	26
119	Nonlinear Neurodynamics and Combinatorial Optimization in Chaotic Neural Networks. Journal of Intelligent and Fuzzy Systems, 1997, 5, 53-68.	0.8	26
120	A Mathematical Model of Prostate Tumor Growth Under Hormone Therapy with Mutation Inhibitor. Journal of Nonlinear Science, 2010, 20, 219-240.	1.0	26
121	Detecting Causality by Combined Use of Multiple Methods: Climate and Brain Examples. PLoS ONE, 2016, 11, e0158572.	1.1	26
122	MATHEMATICAL MODELING OF PROSTATE TUMOR GROWTH UNDER INTERMITTENT ANDROGEN SUPPRESSION WITH PARTIAL DIFFERENTIAL EQUATIONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 3789-3797.	0.7	25
123	Robustness of Oscillatory Behavior in Correlated Networks. PLoS ONE, 2015, 10, e0123722.	1.1	25
124	A dynamic neural network with temporal coding and functional connectivity. Biological Cybernetics, 1998, 78, 87-93.	0.6	24
125	BIFURCATIONS IN SYNAPTICALLY COUPLED HODGKINâ€“HUXLEY NEURONS WITH A PERIODIC INPUT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 653-666.	0.7	24
126	A partial differential equation model and its reduction to an ordinary differential equation model for prostate tumor growth under intermittent hormone therapy. Journal of Mathematical Biology, 2014, 69, 817-838.	0.8	24

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127	Predicting local COVID-19 outbreaks and infectious disease epidemics based on landscape network entropy. Science Bulletin, 2021, 66, 2265-2270.	4.3	24
128	Synchronization of Eukaryotic Cells by Periodic Forcing. Physical Review Letters, 2006, 96, 148102.	2.9	23
129	Timing matters in foreign exchange markets. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 760-766.	1.2	23
130	Qualitative-Modeling-Based Silicon Neurons and Their Networks. Frontiers in Neuroscience, 2016, 10, 273.	1.4	23
131	Deformation of Attractor Landscape via Cholinergic Presynaptic Modulations: A Computational Study Using a Phase Neuron Model. PLoS ONE, 2013, 8, e53854.	1.1	22
132	Quantum model for coherent Ising machines: Stochastic differential equations with replicator dynamics. Physical Review A, 2017, 96, .	1.0	22
133	Development and Applications of Biomimetic Neuronal Networks Toward BrainMorphic Artificial Intelligence. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 577-581.	2.2	22
134	Chaos in Neural Networks Composed of Coincidence Detector Neurons. Neural Networks, 1997, 10, 1353-1359.	3.3	21
135	Personalizing Androgen Suppression for Prostate Cancer Using Mathematical Modeling. Scientific Reports, 2018, 8, 2673.	1.6	21
136	Predicting future dynamics from short-term time series using an Anticipated Learning Machine. National Science Review, 2020, 7, 1079-1091.	4.6	21
137	Ergodicity of Spike Trains: When Does Trial Averaging Make Sense?. Neural Computation, 2003, 15, 1341-1372.	1.3	20
138	Protein domain annotation with integration of heterogeneous information sources. Proteins: Structure, Function and Bioinformatics, 2008, 72, 461-473.	1.5	20
139	Wind direction modelling using multiple observation points. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 591-607.	1.6	20
140	AUTOMATIC MODELING OF SIGNALING PATHWAYS BY NETWORK FLOW MODEL. Journal of Bioinformatics and Computational Biology, 2009, 07, 309-322.	0.3	20
141	A MODEL AT THE MACROSCOPIC SCALE OF PROSTATE TUMOR GROWTH UNDER INTERMITTENT ANDROGEN SUPPRESSION. Mathematical Models and Methods in Applied Sciences, 2009, 19, 2177-2201.	1.7	20
142	Representing spike trains using constant sampling intervals. Journal of Neuroscience Methods, 2009, 183, 277-286.	1.3	20
143	Faithfulness of Recurrence Plots: A Mathematical Proof. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1550168.	0.7	20
144	Quantifying the effect of Vpu on the promotion of HIV-1 replication in the humanized mouse model. Retrovirology, 2016, 13, 23.	0.9	20

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145	Double rotations. Discrete and Continuous Dynamical Systems, 2005, 13, 515-532.	0.5	20
146	Global bifurcation scenario for chaotic dynamical systems that solve optimization problems and analysis of their optimization capability. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi), 1998, 81, 1-12.	0.1	19
147	Solving the binding problem of the brain with bi-directional functional connectivity. Neural Networks, 2001, 14, 395-406.	3.3	19
148	Complex behaviour of a simple partial-discharge model. Europhysics Letters, 2004, 66, 28-34.	0.7	19
149	Partial state feedback control of chaotic neural network and its application. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 371, 228-233.	0.9	19
150	Mathematically modelling and controlling prostate cancer under intermittent hormone therapy. Asian Journal of Andrology, 2012, 14, 270-277.	0.8	19
151	Towards dynamical network biomarkers in neuromodulation of episodic migraine. Translational Neuroscience, 2013, 4, .	0.7	19
152	Comparison between mathematical models of intermittent androgen suppression for prostate cancer. Journal of Theoretical Biology, 2015, 366, 33-45.	0.8	19
153	Population Code Dynamics in Categorical Perception. Scientific Reports, 2016, 6, 22536.	1.6	19
154	Experimental study on chaotic motion of a flooded ship in waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1998, 454, 2537-2553.	1.0	18
155	Possible neural coding with interevent intervals of synchronous firing. Physical Review E, 2002, 66, 026212.	0.8	18
156	Predicting Time Series from Short-Term High-Dimensional Data. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2014, 24, 1430033.	0.7	18
157	Robustness and fragility in coupled oscillator networks under targeted attacks. Physical Review E, 2017, 95, 012315.	0.8	18
158	On the covariance matrix of the stationary distribution of a noisy dynamical system. Nonlinear Theory and Its Applications IEICE, 2018, 9, 166-184.	0.4	18
159	Solving combinatorial optimization problems by nonlinear neural dynamics. , 0, , .		17
160	Automatic learning in chaotic neural networks. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi), 1996, 79, 87-93.	0.1	17
161	Nonlinear analyses of roll motion of a flooded ship in waves. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2000, 358, 1793-1812.	1.6	17
162	Spatiotemporal Spike Encoding of a Continuous External Signal. Neural Computation, 2002, 14, 1599-1628.	1.3	17

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163	Stochastic Resonance and Coincidence Detection in Single Neurons. Neural Processing Letters, 2002, 16, 235-242.	2.0	17
164	Synchronizing a multicellular system by external input: an artificial control strategy. Bioinformatics, 2006, 22, 1775-1781.	1.8	17
165	QUANTITATIVE MODELING OF SPATIO-TEMPORAL DYNAMICS OF INFERIOR OLIVE NEURONS WITH A SIMPLE CONDUCTANCE-BASED MODEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 583-603.	0.7	17
166	Devaneyâ€™s chaos on recurrence plots. Physical Review E, 2010, 82, 036209.	0.8	17
167	Probabilistic differential diagnosis of Middle East respiratory syndrome (MERS) using the time from immigration to illness onset among imported cases. Journal of Theoretical Biology, 2014, 346, 47-53.	0.8	17
168	Task-dependent recurrent dynamics in visual cortex. ELife, 2017, 6, .	2.8	17
169	SENSITIVE RESPONSE OF A CHAOTIC WANDERING STATE TO MEMORY FRAGMENT INPUTS IN A CHAOTIC NEURAL NETWORK MODEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 1413-1421.	0.7	16
170	Chaotic Ising-like dynamics in traffic signals. Scientific Reports, 2013, 3, 1127.	1.6	16
171	Dynamics-based data science in biology. National Science Review, 2021, 8, nwab029.	4.6	16
172	A Supervised Learning Algorithm for Multilayer Spiking Neural Networks Based on Temporal Coding Toward Energy-Efficient VLSI Processor Design. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 394-408.	7.2	16
173	Synchronization of pulse-coupled excitable neurons. Physical Review E, 2001, 64, 051906.	0.8	15
174	Online multi-step prediction for wind speeds and solar irradiation: Evaluation of prediction errors. Renewable Energy, 2014, 67, 35-39.	4.3	15
175	Predicting disease progression from short biomarker series using expert advice algorithm. Scientific Reports, 2015, 5, 8953.	1.6	15
176	Predicting ramps by integrating different sorts of information. European Physical Journal: Special Topics, 2016, 225, 513-525.	1.2	15
177	Dimensionless embedding for nonlinear time series analysis. Physical Review E, 2017, 96, 032219.	0.8	15
178	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. PLoS Computational Biology, 2020, 16, e1008075.	1.5	15
179	Reconstructing bifurcation diagrams only from time-series data generated by electronic circuits in discrete-time dynamical systems. Chaos, 2020, 30, 013128.	1.0	15
180	Dynamical Calling Behavior Experimentally Observed in Japanese Tree Frogs (Hyla japonica). IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2007, E90-A, 2154-2161.	0.2	15

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181	DETECTING NONLINEAR DETERMINISM IN VOICED SOUNDS OF JAPANESE VOWEL /a/. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2000, 10, 1973-1979.	0.7	14
182	Pandemic HIV-1 Vpu overcomes intrinsic herd immunity mediated by tetherin. Scientific Reports, 2015, 5, 12256.	1.6	14
183	Intermittent Androgen Suppression: Estimating Parameters for Individual Patients Based on Initial PSA Data in Response to Androgen Deprivation Therapy. PLoS ONE, 2015, 10, e0130372.	1.1	14
184	Dual coding hypotheses for neural information representation. Mathematical Biosciences, 2007, 207, 312-321.	0.9	13
185	Mathematical-model-based design of silicon burst neurons. Neurocomputing, 2008, 71, 1619-1628.	3.5	13
186	Solution to the inverse problem of estimating gap-junctional and inhibitory conductance in inferior olive neurons from spike trains by network model simulation. Neural Networks, 2013, 47, 51-63.	3.3	13
187	Bifurcation analysis of a mathematical model of atopic dermatitis to determine patient-specific effects of treatments on dynamic phenotypes. Journal of Theoretical Biology, 2018, 448, 66-79.	0.8	13
188	A Spatially-Ordered Pacemaker Observed in Squid Giant Axons. Journal of the Physical Society of Japan, 1982, 51, 942-950.	0.7	12
189	Lyapunov Spectral Analysis on Random Data. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1997, 07, 1267-1282.	0.7	12
190	Equivalence of convex minimization problems over base polytopes. Japan Journal of Industrial and Applied Mathematics, 2012, 29, 519-534.	0.5	12
191	Parsimonious description for predicting high-dimensional dynamics. Scientific Reports, 2015, 5, 15736.	1.6	12
192	Combining multiple forecasts for multivariate time series via state-dependent weighting. Chaos, 2019, 29, 033128.	1.0	12
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