

Gouhei Tanaka

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

2,732
citations

331670

21
h-index

189892

50
g-index

92
all docs

92
docs citations

92
times ranked

2060
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-reservoir echo state networks with sequence resampling for nonlinear time-series prediction. <i>Neurocomputing</i> , 2022, 467, 115-129.	5.9	24
2	2022 roadmap on neuromorphic computing and engineering. <i>Neuromorphic Computing and Engineering</i> , 2022, 2, 022501.	5.9	217
3	Computational Efficiency of Multi-Step Learning Echo State Networks for Nonlinear Time Series Prediction. <i>IEEE Access</i> , 2022, 10, 28535-28544.	4.2	9
4	Guest Editorial Special Issue on New Frontiers in Extremely Efficient Reservoir Computing. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2022, 33, 2571-2574.	11.3	1
5	Simulation platform for pattern recognition based on reservoir computing with memristor networks. <i>Scientific Reports</i> , 2022, 12, .	3.3	9
6	Co-evolution dynamics of epidemic and information under dynamical multi-source information and behavioral responses. <i>Knowledge-Based Systems</i> , 2022, 252, 109413.	7.1	9
7	A Numerical Exploration of Signal Detector Arrangement in a Spin-Wave Reservoir Computing Device. <i>IEEE Access</i> , 2021, 9, 72637-72646.	4.2	16
8	partial-FORCE: A fast and robust online training method for recurrent neural networks. , 2021, , .		0
9	Spin waves propagating through a stripe magnetic domain structure and their applications to reservoir computing. <i>Physical Review Research</i> , 2021, 3, .	3.6	26
10	Transfer-RLS method and transfer-FORCE learning for simple and fast training of reservoir computing models. <i>Neural Networks</i> , 2021, 143, 550-563.	5.9	6
11	A Multi-Reservoir Echo State Network with Multiple-Size Input Time Slices for Nonlinear Time-Series Prediction. <i>Lecture Notes in Computer Science</i> , 2021, , 28-39.	1.3	0
12	Spatially Arranged Sparse Recurrent Neural Networks for Energy Efficient Associative Memory. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2020, 31, 24-38.	11.3	21
13	Spatial distribution of information effective for logic function learning in spin-wave reservoir computing chip utilizing spatiotemporal physical dynamics. , 2020, , .		2
14	Estimation and prediction of ellipsoidal molecular shapes in organic crystals based on ellipsoid packing. <i>PLoS ONE</i> , 2020, 15, e0239933.	2.5	2
15	Deep Echo State Networks with Multi-Span Features for Nonlinear Time Series Prediction. , 2020, , .		5
16	HP-ESN: Echo State Networks Combined with Hodrick-Prescott Filter for Nonlinear Time-Series Prediction. , 2020, , .		5
17	Comparing catch-up vaccination programs based on analysis of 2012–13 rubella outbreak in Kawasaki City, Japan. <i>PLoS ONE</i> , 2020, 15, e0237312.	2.5	3
18	Network structure-based interventions on spatial spread of epidemics in metapopulation networks. <i>Physical Review E</i> , 2020, 102, 062306.	2.1	15

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19	Two-Step FORCE Learning Algorithm for Fast Convergence in Reservoir Computing. Lecture Notes in Computer Science, 2020, , 459-469.	1.3	4
20	Intervention threshold for epidemic control in susceptible-infected-recovered metapopulation models. Physical Review E, 2019, 100, 022302.	2.1	14
21	In a Spin-Wave Reservoir for Machine Learning. , 2019, , .		2
22	Recent advances in physical reservoir computing: A review. Neural Networks, 2019, 115, 100-123.	5.9	951
23	Analysis on Characteristics of Multi-Step Learning Echo State Networks for Nonlinear Time Series Prediction. , 2019, , .		8
24	Keynote Speech: Information processing hardware, physical reservoir computing and complex-valued neural networks. , 2019, , .		6
25	Hybrid pooling for enhancement of generalization ability in deep convolutional neural networks. Neurocomputing, 2019, 333, 76-85.	5.9	33
26	Application Identification of Network Traffic by Reservoir Computing. Communications in Computer and Information Science, 2019, , 389-396.	0.5	3
27	Echo State Network with Adversarial Training. Lecture Notes in Computer Science, 2019, , 82-88.	1.3	1
28	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.	1.7	13
29	Reservoir Computing With Spin Waves Excited in a Garnet Film. IEEE Access, 2018, 6, 4462-4469.	4.2	135
30	Bifurcation mechanism for emergence of spontaneous oscillations in coupled heterogeneous excitable units. Physical Review E, 2018, 98, .	2.1	3
31	Reservoir Computing with Untrained Convolutional Neural Networks for Image Recognition. , 2018, , .		31
32	Dimensionality Reduction by Reservoir Computing and Its Application to IoT Edge Computing. Lecture Notes in Computer Science, 2018, , 635-643.	1.3	5
33	Proposal of Carrier-Wave Reservoir Computing. Lecture Notes in Computer Science, 2018, , 616-624.	1.3	3
34	Prediction of Molecular Packing Motifs in Organic Crystals by Neural Graph Fingerprints. Lecture Notes in Computer Science, 2018, , 26-34.	1.3	3
35	Robustness and fragility in coupled oscillator networks under targeted attacks. Physical Review E, 2017, 95, 012315.	2.1	18
36	Interplay between epidemic spread and information propagation on metapopulation networks. Journal of Theoretical Biology, 2017, 420, 18-25.	1.7	15

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37	Smoothing effect for spatially distributed renewable resources and its impact on power grid robustness. Chaos, 2017, 27, 033104.	2.5	3
38	Robustness of coupled oscillator networks with heterogeneous natural frequencies. Chaos, 2017, 27, 123105.	2.5	6
39	Simulation Study of Physical Reservoir Computing by Nonlinear Deterministic Time Series Analysis. Lecture Notes in Computer Science, 2017, , 639-647.	1.3	4
40	Complex-Valued Neural Networks for Wave-Based Realization of Reservoir Computing. Lecture Notes in Computer Science, 2017, , 449-456.	1.3	4
41	Waveform Classification by Memristive Reservoir Computing. Lecture Notes in Computer Science, 2017, , 457-465.	1.3	8
42	Parameter Scaling for Epidemic Size in a Spatial Epidemic Model with Mobile Individuals. PLoS ONE, 2016, 11, e0168127.	2.5	11
43	Photonic Reservoir Computing Based on Laser Dynamics with External Feedback. Lecture Notes in Computer Science, 2016, , 222-230.	1.3	10
44	Dynamics of Reservoir Computing at the Edge of Stability. Lecture Notes in Computer Science, 2016, , 205-212.	1.3	6
45	Exploiting Heterogeneous Units for Reservoir Computing with Simple Architecture. Lecture Notes in Computer Science, 2016, , 187-194.	1.3	8
46	Dynamics of Cellular Systems and Bifurcation Theory. Seibutsu Butsuri, 2016, 56, 340-344.	0.1	0
47	Oscillation dynamics underlie functional switching of NF- κ B for B-cell activation. Npj Systems Biology and Applications, 2016, 2, 16024.	3.0	24
48	Wave-Based Neuromorphic Computing Framework for Brain-Like Energy Efficiency and Integration. IEEE Nanotechnology Magazine, 2016, 15, 762-769.	2.0	21
49	A Hybrid Pooling Method for Convolutional Neural Networks. Lecture Notes in Computer Science, 2016, , 454-461.	1.3	14
50	Computational Performance of Echo State Networks with Dynamic Synapses. Lecture Notes in Computer Science, 2016, , 264-271.	1.3	3
51	A Pruning Method Based on Weight Variation Information for Feedforward Neural Networks. IFAC-PapersOnLine, 2015, 48, 221-226.	0.9	3
52	Public opinion formation with the spiral of silence on complex social networks. Nonlinear Theory and Its Applications IEICE, 2015, 6, 15-25.	0.6	3
53	Random and Targeted Interventions for Epidemic Control in Metapopulation Models. Scientific Reports, 2015, 4, 5522.	3.3	39
54	A hybrid model for hepatitis B virus**This research is partially supported by NSFC (Nos. 11401448,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Scientist Program of SIBS of CAS (No.2009CSP002), Shanghai Pujiang Program, and National Center for Mathematics and Interdisciplinary Sciences of CAS.. IFAC-PapersOnLine, 2015, 48, 37-40.	0.9	0

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55	Intermittent Androgen Suppression: Estimating Parameters for Individual Patients Based on Initial PSA Data in Response to Androgen Deprivation Therapy. PLoS ONE, 2015, 10, e0130372.	2.5	14
56	Regularity and randomness in modular network structures for neural associative memories. , 2015, , .		4
57	Wave-based neuromorphic computing framework for brain-like energy efficiency and integration. , 2015, , .		4
58	Dynamical Robustness of Complex Biological Networks. , 2015, , 29-53.		4
59	Dynamics of an HBV Model with Drug Resistance Under Intermittent Antiviral Therapy. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1540011.	1.7	3
60	Wave-based device scaling concept for brain-like energy efficiency and integration. , 2015, , .		2
61	Wave-Based Reservoir Computing by Synchronization of Coupled Oscillators. Lecture Notes in Computer Science, 2015, , 198-205.	1.3	13
62	Robustness of Oscillatory Behavior in Correlated Networks. PLoS ONE, 2015, 10, e0123722.	2.5	25
63	Node-wise robustness against fluctuations of power consumption in power grids. European Physical Journal: Special Topics, 2014, 223, 2549-2559.	2.6	7
64	Epidemic spread on interconnected metapopulation networks. Physical Review E, 2014, 90, 032806.	2.1	22
65	Dynamical robustness of coupled heterogeneous oscillators. Physical Review E, 2014, 89, 052906.	2.1	51
66	Finite-size scaling in globally coupled phase oscillators with a general coupling scheme. Progress of Theoretical and Experimental Physics, 2014, 2014, 23A07-0.	6.6	2
67	Hopfield-Type Associative Memory with Sparse Modular Networks. Lecture Notes in Computer Science, 2014, , 255-262.	1.3	5
68	Effects of seasonal variation patterns on recurrent outbreaks in epidemic models. Journal of Theoretical Biology, 2013, 317, 87-95.	1.7	12
69	Complex-Valued Neural Networks: Advances and Applications [Book Review]. IEEE Computational Intelligence Magazine, 2013, 8, 77-79.	3.2	4
70	Efficient recovery of dynamic behavior in coupled oscillator networks. Physical Review E, 2013, 88, 032909.	2.1	27
71	Nonstandard scaling law of fluctuations in finite-size systems of globally coupled oscillators. Physical Review E, 2013, 88, 024102.	2.1	0
72	Long-term fluctuations in globally coupled phase oscillators with general coupling: Finite size effects. Chaos, 2012, 22, 013133.	2.5	2

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73	Dynamical modeling of chronic myeloid leukemia progression and the development of mutations. , 2012, , .		1
74	Mathematically modelling and controlling prostate cancer under intermittent hormone therapy. Asian Journal of Andrology, 2012, 14, 270-277.	1.6	19
75	Dynamical robustness in complex networks: the crucial role of low-degree nodes. Scientific Reports, 2012, 2, 232.	3.3	101
76	Robustness of multilayer oscillator networks. Physical Review E, 2011, 83, 056208.	2.1	53
77	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.	3.4	78
78	Phase transitions in mixed populations composed of two types of self-oscillatory elements with different periods. Physical Review E, 2010, 82, 035202.	2.1	31
79	Complex-Valued Multistate Associative Memory With Nonlinear Multilevel Functions for Gray-Level Image Reconstruction. IEEE Transactions on Neural Networks, 2009, 20, 1463-1473.	4.2	165
80	Grazing-induced crises in hybrid dynamical systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 3134-3139.	2.1	5
81	Backpropagation Learning Algorithm for Multilayer Phasor Neural Networks. Lecture Notes in Computer Science, 2009, , 484-493.	1.3	0
82	Bifurcation analysis on a hybrid systems model of intermittent hormonal therapy for prostate cancer. Physica D: Nonlinear Phenomena, 2008, 237, 2616-2627.	2.8	38
83	A Mathematical Model of Intermittent Androgen Suppression for Prostate Cancer. Journal of Nonlinear Science, 2008, 18, 593-614.	2.1	125
84	Complex-valued multistate associative memory with nonlinear multilevel functions for gray-level image reconstruction. , 2008, , .		0
85	A Hybrid Systems Approach to Hormonal Therapy of Prostate Cancer and its Nonlinear Dynamics. AIP Conference Proceedings, 2007, , .	0.4	2
86	Sensitivity versus resonance in two-dimensional spiking-bursting neuron models. Physical Review E, 2007, 75, 041902.	2.1	14
87	Collective skipping: Aperiodic phase locking in ensembles of bursting oscillators. Europhysics Letters, 2007, 78, 10003.	2.0	0
88	Synchronization and propagation of bursts in networks of coupled map neurons. Chaos, 2006, 16, 013113.	2.5	74
89	Crisis-induced intermittency in two coupled chaotic maps: Towards understanding chaotic itinerancy. Physical Review E, 2005, 71, 016219.	2.1	23
90	MULTISTATE ASSOCIATIVE MEMORY WITH PARAMETRICALLY COUPLED MAP NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 1395-1410.	1.7	6

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91	BIFURCATION STRUCTURES OF PERIOD-ADDING PHENOMENA IN AN OCEAN INTERNAL WAVE MODEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 3409-3424.	1.7	11