Haruhiko Nishimura

List of Publications by Year
in descending order

140	1,568	361296	395590
papers	citations	20 h-index	33 g-index

145	145	145	873
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	ASSOCIATIVE MEMORY IN QUATERNIONIC HOPFIELD NEURAL NETWORK. International Journal of Neural Systems, 2008, 18, 135-145.	3.2	109
2	Qubit neural network and its learning efficiency. Neural Computing and Applications, 2005, 14, 114-121.	3.2	104
3	Image Compression by Layered Quantum Neural Networks. Neural Processing Letters, 2002, 16, 67-80.	2.0	57
4	Analysis of Chaotic Resonance in Izhikevich Neuron Model. PLoS ONE, 2015, 10, e0138919.	1.1	56
5	Quaternionic multistate Hopfield neural network with extended projection rule. Artificial Life and Robotics, 2016, 21, 106-111.	0.7	52
6	An Examination of Qubit Neural Network in Controlling an Inverted Pendulum. Neural Processing Letters, 2005, 22, 277-290.	2.0	51
7	Classification Methods Based on Complexity and Synchronization of Electroencephalography Signals in Alzheimerâ€™s Disease. Frontiers in Psychiatry, 2020, 11, 255.	1.3	50
8	A network model based on qubitlike neuron corresponding to quantum circuit. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	47
9	Quaternionic Neural Networks. , 2009, , 411-439.		43
10	Chaotic Resonance in Typical Routes to Chaos in the Izhikevich Neuron Model. Scientific Reports, 2017, 7, 1331.	1.6	42
11	Atypical temporal-scale-specific fractal changes in Alzheimerâ€™s disease EEG and their relevance to cognitive decline. Cognitive Neurodynamics, 2019, 13, 1-11.	2.3	42
12	Coherent Response in a Chaotic Neural Network. Neural Processing Letters, 2000, 12, 49-58.	2.0	40
13	Commutative quaternion and multistate Hopfield neural networks. , 2010, , .		39
14	Feed forward neural network with random quaternionic neurons. Signal Processing, 2017, 136, 59-68.	2.1	38
15	Chaotic States Induced By Resetting Process In Izhikevich Neuron Model. Journal of Artificial Intelligence and Soft Computing Research, 2015, 5, 109-119.	3.5	34
16	Quaternionic Multilayer Perceptron with Local Analyticity. Information (Switzerland), 2012, 3, 756-770.	1.7	33
17	A multilayered feed-forward network based on qubit neuron model. Systems and Computers in Japan, 2004, 35, 43-51.	0.2	29
18	A Neural Chaos Model of Multistable Perception. Neural Processing Letters, 2000, 12, 267-276.	2.0	28

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19	Chaotic Resonance in Coupled Inferior Olive Neurons with the LlinÃ¡s Approach Neuron Model. Neural Computation, 2016, 28, 2505-2532.	1.3	28
20	Beta Activities in EEG Associated with Emotional Stress. International Journal of Intelligent Computing in Medical Sciences and Image Processing, 2009, 3, 57-68.	0.5	28
21	Enhancement of Spike-Timing-Dependent Plasticity in Spiking Neural Systems with Noise. International Journal of Neural Systems, 2016, 26, 1550040.	3.2	26
22	MODELING FLUCTUATIONS IN DEFAULT-MODE BRAIN NETWORK USING A SPIKING NEURAL NETWORK. International Journal of Neural Systems, 2012, 22, 1250016.	3.2	25
23	Pattern Classification by Spiking Neural Networks Combining Self-Organized and Reward-Related Spike-Timing-Dependent Plasticity. Journal of Artificial Intelligence and Soft Computing Research, 2019, 9, 283-291.	3.5	22
24	Temporal-specific complexity of spiking patterns in spontaneous activity induced by a dual complex network structure. Scientific Reports, 2019, 9, 12749.	1.6	19
25	Routes to Chaos Induced by a Discontinuous Resetting Process in a Hybrid Spiking Neuron Model. Scientific Reports, 2018, 8, 379.	1.6	17
26	Controlling Chaotic Resonance in Systems with Chaos-Chaos Intermittency Using External Feedback. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2018, E101.A, 1900-1906.	0.2	17
27	Resonance phenomena controlled by external feedback signals and additive noise in neural systems. Scientific Reports, 2019, 9, 12630.	1.6	17
28	Synchronization of Chaos in Neural Systems. Frontiers in Applied Mathematics and Statistics, 2020, 6, .	0.7	16
29	An iterative learning scheme for multistate complex-valued and quaternionic Hopfield neural networks. , 2009, , .		14
30	On the fundamental properties of fully quaternionic hopfield network. , 2012, , .		14
31	Evaluation of Chaotic Resonance by Lyapunov Exponent in Attractor-Merging Type Systems. Lecture Notes in Computer Science, 2016, , 430-437.	1.0	14
32	Emergence of Flocking Behavior Based on Reinforcement Learning. Lecture Notes in Computer Science, 2006, , 699-706.	1.0	13
33	Pseudo-Orthogonalization of Memory Patterns for Complex-Valued and Quaternionic Associative Memories. Journal of Artificial Intelligence and Soft Computing Research, 2017, 7, 257-264.	3.5	13
34	Characteristics of Flocking Behavior Model by Reinforcement Learning Scheme. , 2006, , .		12
35	Complex-Valued Associative Memories with Projection and Iterative Learning Rules. Journal of Artificial Intelligence and Soft Computing Research, 2018, 8, 237-249.	3.5	12
36	Transition of Neural Activity From the Chaotic Bipolar-Disorder State to the Periodic Healthy State Using External Feedback Signals. Frontiers in Computational Neuroscience, 2020, 14, 76.	1.2	12

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37	Long-Tailed Characteristic of Spiking Pattern Alternation Induced by Log-Normal Excitatory Synaptic Distribution. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3525-3537.	7.2	12
38	Qubit Neural Network. , 2009, , 325-351.		12
39	Induced Synchronization of Chaos-Chaos Intermittency Maintaining Asynchronous State of Chaotic Orbits by External Feedback Signals. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2019, E102.A, 524-531.	0.2	11
40	Chaos-Chaos Intermittency Synchronization Controlled by External Feedback Signals in Chua's Circuits. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2020, E103.A, 303-312.	0.2	11
41	Qubit Neural Network and Its Efficiency. Lecture Notes in Computer Science, 2003, , 304-310.	1.0	10
42	Dynamics of Discrete-Time Quaternionic Hopfield Neural Networks. Lecture Notes in Computer Science, 2007, , 848-857.	1.0	10
43	Coherence condition for resonant neutrino oscillation. Physical Review D, 1990, 41, 2379-2383.	1.6	9
44	Reinforcement Learning Scheme for Flocking Behavior Emergence. Journal of Advanced Computational Intelligence and Intelligent Informatics, 2007, 11, 155-161.	0.5	9
45	Learning Grouping and Anti-predator Behaviors for Multi-agent Systems. Lecture Notes in Computer Science, 2008, , 426-433.	1.0	8
46	On processing three dimensional data by quaternionic neural networks. , 2013, , .		8
47	Approaches of Phase Lag Index to EEG Signals in Alzheimerâ€™s Disease from Complex Network Analysis. Smart Innovation, Systems and Technologies, 2016, , 459-468.	0.5	8
48	Noise-Induced Phenomena in the Kaldor Business Cycle Model. Transactions of the Institute of Systems Control and Information Engineers, 2017, 30, 459-466.	0.1	8
49	Stochastic Resonance in Recurrent Neural Network with Hopfield-Type Memory. Neural Processing Letters, 2009, 30, 145-154.	2.0	7
50	Effects of Chaotic Exploration on Reinforcement Maze Learning. Lecture Notes in Computer Science, 2004, , 833-839.	1.0	7
51	On the performance of Quaternionic Bidirectional Auto-Associative Memory. , 2015, , .		6
52	Stabilizing Circadian Rhythms in Bipolar Disorder by Chaos Control Methods. Frontiers in Applied Mathematics and Statistics, 2020, 6, .	0.7	6
53	Keyboard Dependency of Personal Identification Performance by Keystroke Dynamics in Free Text Typing. Journal of Information Security, 2015, 06, 229-240.	0.4	6
54	Personal Identification by Keystroke Dynamics in Japanese Free Text Typing. Transactions of the Institute of Systems Control and Information Engineers, 2009, 22, 145-153.	0.1	6

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55	Fuzzy realization in clinical test database system. International Journal of Bio-medical Computing, 1991, 28, 289-296.	0.5	5
56	An evolutionary approach to associative memory in recurrent neural networks. Neural Processing Letters, 1994, 1, 9-13.	2.0	5
57	EEG Activities Evoked by Trauma Stimuli Related to Earthquakes and Personality Features Associated with Trauma. International Journal of Intelligent Computing in Medical Sciences and Image Processing, 2011, 4, 13-24.	0.5	5
58	Keystroke Dynamics for Individual Identification in Japanese Free Text Typing. SICE Journal of Control Measurement and System Integration, 2011, 4, 172-176.	0.4	5
59	Chaotic Dynamical States in the Izhikevich Neuron Model. , 2015, , 355-375.		5
60	Chaotic states caused by discontinuous resetting process in spiking neuron model. , 2016, , .		5
61	Deterministic characteristics of spontaneous activity detected by multi-fractal analysis in a spiking neural network with long-tailed distributions of synaptic weights. Cognitive Neurodynamics, 2020, 14, 829-836.	2.3	5
62	Chaos-Chaos Intermittency Synchronization Induced by Feedback Signals and Stochastic Noise in Coupled Chaotic Systems. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2020, E103.A, 1086-1094.	0.2	5
63	Coping with nonstationary environments: a genetic algorithm using neutral variation. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2002, 32, 497-504.	3.4	4
64	CHAOTIC EXPLORATION EFFECTS ON REINFORCEMENT LEARNING IN SHORTCUT MAZE TASK. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 3015-3022.	0.7	4
65	DYNAMIC MEMORIZATION CHARACTERISTICS IN NEURAL NETWORKS WITH DIFFERENT NEURONAL DYNAMICS. International Journal of Neural Systems, 2007, 17, 161-170.	3.2	4
66	Flick input authentication in Japanese free text entry on smartphones. , 2014, , .		4
67	Analysis of routes to chaos in Izhikevich neuron model with resetting process. , 2014, , .		4
68	Screen Unlocking by Spontaneous Flick Reactions with One-Class Classification Approaches. , 2016, , .		4
69	Time Series Prediction by Quaternionic Qubit Neural Network. , 2020, , .		4
70	An Approach for Stabilizing Abnormal Neural Activity in ADHD Using Chaotic Resonance. Frontiers in Computational Neuroscience, 2021, 15, 726641.	1.2	4
71	Dynamic Learning Characteristics of Chaotic Neural Networks with Stimulus-Response Scheme. Transactions of the Institute of Systems Control and Information Engineers, 1997, 10, 518-527.	0.1	4
72	A Hybrid Model for Individual Identification Based on Keystroke Data in Japanese Free Text Typing. Transactions of the Society of Instrument and Control Engineers, 2010, 46, 676-684.	0.1	4

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73	A Study of Bayesian Network Model Related to the Specific Health Checkup based on Lifestyle Factor Analysis. Transactions of Japan Society of Kansei Engineering, 2016, 15, 693-701.	0.1	4
74	Unified preon models based on simple gauge groups. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 128, 290-294.	1.5	3
75	The strong CP problem and nucleon stability in the [SU(3)]3 trinification model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 209, 307-310.	1.5	3
76	Characteristic parameters and classification of one-dimensional cellular automata. Chaos, Solitons and Fractals, 1993, 3, 651-665.	2.5	3
77	Fractal evaluations of fish school movements in simulations and real observations. Artificial Life and Robotics, 2002, 6, 36-43.	0.7	3
78	Reinforcement Learning Scheme for Grouping and Anti-predator Behavior. Lecture Notes in Computer Science, 2007, , 115-122.	1.0	3
79	Analysis of interannual data for the specific health checkup to develop its bayesian network appliction. Health Evaluation and Promotion, 2015, 42, 479-491.	0.0	3
80	Skewed and Long-Tailed Distributions of Spiking Activity in Coupled Network Modules with Log-Normal Synaptic Weight Distribution. Lecture Notes in Computer Science, 2018, , 535-544.	1.0	3
81	Induced Synchronization of Chaos-Chaos Intermittency in Coupled Cubic Maps by External Feedback Signals. , 2018, , .		3
82	Constructing Convolutional Neural Networks Based on Quaternion. , 2020, , .		3
83	Recent Trends of Controlling Chaotic Resonance and Future Perspectives. Frontiers in Applied Mathematics and Statistics, 2021, 7, .	0.7	3
84	Effect of Neural Decay Factors on Prediction Performance in Chaotic Echo State Networks. , 2021, , .		3
85	Evaluation of Ability of Chaotic Resonance under Noises in Neural Systems Comprising Excitatoryâ€“Inhibitory Neurons. , 2021, , .		3
86	On applying the method of “system of systems” in robustness analysis and autonomous control of dynamics-aware internet architecture. , 2012, , .		2
87	Pattern stability on complex-valued associative memory by local iterative learning scheme. , 2012, , .		2
88	Chaotic resonance in Izhikevich neuron model and its assembly. , 2012, , .		2
89	Influence of Keyboard Difference on Personal Identification by Keystroke Dynamics in Japanese Free Text Typing. , 2012, , .		2
90	Spontaneous activity modeling in spiking neural systems with log-normal synaptic weight distribution. , 2014, , .		2

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91	Pattern Retrieval by Quaternionic Associative Memory with Dual Connections. Lecture Notes in Computer Science, 2016, , 317-325.	1.0	2
92	Controlling method for attractor merged chaotic resonance by external feedback. , 2017, , .		2
93	Analysis of Chaos Route in Hybridized FitzHugh-Nagumo Neuron Model. Transactions of the Institute of Systems Control and Information Engineers, 2017, 30, 167-174.	0.1	2
94	Emergent Patterns and Spontaneous Activity in Spiking Neural Networks with Dual Complex Network Structure. , 2018, , .		2
95	Reinforcement Learning by Chaotic Exploration Generator in Target Capturing Task. Lecture Notes in Computer Science, 2005, , 1248-1254.	1.0	2
96	Profile Generation Methods for Reinforcing Robustness of Keystroke Authentication in Free Text Typing. Journal of Information Security, 2015, 06, 131-141.	0.4	2
97	Novel Approach for Memory Storage Systems with Chaos-Chaos Intermittency. , 2021, , .		2
98	Personal Identification and Authentication Based on Keystroke Dynamics in Japanese Long-Text Input. , 0, , 212-231.		2
99	Memory Storage Systems Utilizing Chaotic Attractor-Merging Bifurcation. IEEE Access, 2022, 10, 15699-15706.	2.6	2
100	Temporal-scale dependent dynamical characteristics of EEG reflecting circadian rhythms. Nonlinear Theory and Its Applications IEICE, 2022, 13, 421-426.	0.4	2
101	One-point amplitude and string-loop corrected equation of motion. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 203, 251-255.	1.5	1
102	Evolving neural networks with iterative learning scheme for associative memory. Neural Processing Letters, 1995, 2, 1-5.	2.0	1
103	Signal recognition by input-output correlation in associative neural networks. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq1 1 0.784314 rgBT /Overloc	0.1	1
104	Neural Model Approach to the Basic Law of Psychophysics. Neural Processing Letters, 2008, 27, 115-123.	2.0	1
105	Effects of chaotic exploration on reinforcement learning in target capturing task. International Journal of Knowledge-Based and Intelligent Engineering Systems, 2009, 12, 369-377.	0.7	1
106	Detection of tumors on stomach wall in X-ray images. , 2010, , .		1
107	On the filtering mechanism of spontaneous signaling causality of brain's default mode network. , 2012, , .		1
108	Stochastic resonance effects in Izhikevich neural system with spike-timing dependent plasticity. , 2015, , .		1

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109	Analysis of Coherence Resonance in Kaldor-Kalecki Business Cycle Model. , 2016, , .		1
110	Retrieval performance of Hopfield Associative Memory with Complex-valued and Real-valued neurons. , 2016, , .		1
111	A Comparison of Grouping Behaviors on Rule-Based and Learning-Based Multi-agent Systems. Mathematics for Industry, 2016, , 27-40.	0.4	1
112	Temporal-specific roles of fractality in EEG signal of Alzheimer's disease. , 2017, , .		1
113	Utilizing High-Dimensional Neural Networks for Pseudo-orthogonalization of Memory Patterns. Lecture Notes in Computer Science, 2014, , 527-534.	1.0	1
114	Grouping and Anti-predator Behaviors for Multi-agent Systems Based on Reinforcement Learning Scheme. Studies in Computational Intelligence, 2010, , 149-182.	0.7	1
115	Noise Effects on Chaos in Chaotic Neuron Model. Proceedings in Information and Communications Technology, 2010, , 209-217.	0.2	1
116	Neural Chaos Scheme of Perceptual Conflicts. Lecture Notes in Computer Science, 2003, , 170-176.	1.0	1
117	Perceptual Binding by Coupled Oscillatory Neural Network. Lecture Notes in Computer Science, 2005, , 139-144.	1.0	1
118	Time-series fractal analysis of MEG changes induced by emotional stimulation. Journal of Japan Society for Fuzzy Theory and Intelligent Informatics, 2008, 20, 117-128.	0.0	1
119	Reinforcement Learning Scheme for Grouping and Characterization of Multi-agent Network. Lecture Notes in Computer Science, 2010, , 592-601.	1.0	1
120	A Genetic Algorithm Inspired by the Neutral Theory and Its Application to the Formation of Ladder-Network. Transactions of the Society of Instrument and Control Engineers, 1999, 35, 1462-1468.	0.1	1
121	Evaluation Methods of Chaotic State in Spiking Neural System with State Dependent Jump. Transactions of the Institute of Systems Control and Information Engineers, 2016, 29, 210-215.	0.1	1
122	Bayesian Network Modeling for Specific Health Checkups on Metabolic Syndrome. Intelligent Systems Reference Library, 2018, , 79-96.	1.0	1
123	Effects of neuronal dynamics on memory storing in stimulus-response scheme model. Systems and Computers in Japan, 2001, 32, 29-35.	0.2	0
124	On retrieval performance of associative memory by Complex-valued Synergetic Computer. , 2011, , .		0
125	On sustaining robustness of molecular pathway circuits of the HSR network of E. coli under spatial configuration. , 2012, , .		0
126	Retrieval Performance of Complex-Valued Associative Memory with Complex Network Structure. , 2012, , .		0

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127	Development of a support system for diabetic patients at home using a smartphone. , 2012, , .		0
128	Beats as the origin of slow fluctuations in the brain's default-mode network. , 2012, , .		0
129	Estimating the dissipative factors of synaptic exocytosis in Drosophila using a filter based reverse engineering method. Nano Communication Networks, 2017, 11, 1-10.	1.6	0
130	Risk Analysis of Financial Time-Series Using Multi-Scale Entropy. , 2018, , .		0
131	Informatics Curriculum for Nursing College Students According to the Data Health Perspective. , 2019, , .		0
132	Health State Transition Model by Binary Expression and Cubic Lattice Representation Corresponding to the Specific Health Checkup. International Journal of Affective Engineering, 2021, 20, 49-55.	0.2	0
133	Feature Analysis of Metabolic Syndrome in the Specific Health Checkup from Lifestyle Questionnaire Data. Transactions of Japan Society of Kansei Engineering, 2021, 20, 9-17.	0.1	0
134	FRACTAL ANALYSES OF SIMULATED FISH SCHOOL MOVEMENTS IN A WATER TANK. KANSEI Engineering International, 2004, 4, 1-8.	0.2	0
135	Keystroke Dynamics in Text Typing. Journal of the Japan Society of Information and Knowledge, 2006, 16, 63-68.	0.0	0
136	Intelligent Safety Verification for Multi-car Elevator System Based on EVALPSN. Lecture Notes in Computer Science, 2011, , 496-505.	1.0	0
137	Firing Pattern of Default Mode Brain Network with Spiking Neuron Model. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 629-636.	0.2	0
138	An Approach to Fluctuations in Default Mode Brain Network from Spiking Neuron Model. , 2012, , .		0
139	A Multilayered Scheme of Bidirectional Associative Memory for Multistable Perception. Lecture Notes in Computer Science, 2007, , 759-768.	1.0	0
140	Application of Reduced-Region-of-Orbit (RRO) Feedback Method to a Chaotic Bipolar-disorder Neural System. International Symposium on Affective Science and Engineering, 2022, ISASE2022, 1-4.	0.1	0