

# Masaki Kobayashi

## List of Publications by Year in descending order

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papers

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430442

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82  
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82  
docs citations

82  
times ranked

327  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hyperbolic Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 335-341.	7.2	61
2	Quaternionic Hopfield neural networks with twin-multistate activation function. Neurocomputing, 2017, 267, 304-310.	3.5	42
3	Projection Rule for Rotor Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 1298-1307.	7.2	41
4	Twin-multistate commutative quaternion Hopfield neural networks. Neurocomputing, 2018, 320, 150-156.	3.5	41
5	Hyperbolic Hopfield neural networks with directional multistate activation function. Neurocomputing, 2018, 275, 2217-2226.	3.5	36
6	Symmetric Complex-Valued Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 1011-1015.	7.2	35
7	Exceptional Reducibility of Complex-Valued Neural Networks. IEEE Transactions on Neural Networks, 2010, 21, 1060-1072.	4.8	34
8	Rotational invariance of quaternionic hopfield neural networks. IEEJ Transactions on Electrical and Electronic Engineering, 2016, 11, 516-520.	0.8	30
9	PSEUDO-RELAXATION LEARNING ALGORITHM FOR COMPLEX-VALUED ASSOCIATIVE MEMORY. International Journal of Neural Systems, 2008, 18, 147-156.	3.2	29
10	Hybrid Quaternionic Hopfield Neural Network. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2015, E98.A, 1512-1518.	0.2	26
11	Automatic sleep stage scoring based on waveform recognition method and decision-tree learning. Systems and Computers in Japan, 2002, 33, 1-13.	0.2	25
12	Gradient descent learning rule for complex-valued associative memories with large constant terms. IEEJ Transactions on Electrical and Electronic Engineering, 2016, 11, 357-363.	0.8	25
13	Noise Robust Projection Rule for Hyperbolic Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 352-356.	7.2	25
14	Attractors accompanied with a training pattern of multivalued hopfield neural networks. IEEJ Transactions on Electrical and Electronic Engineering, 2015, 10, 195-200.	0.8	23
15	Noise Robust Gradient Descent Learning for Complex-Valued Associative Memory. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2011, E94-A, 1756-1759.	0.2	21
16	Complex-Valued Bipartite Auto-Associative Memory. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2014, E97.A, 1680-1687.	0.2	21
17	Stability of Rotor Hopfield Neural Networks With Synchronous Mode. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 744-748.	7.2	20
18	Decomposition of Rotor Hopfield Neural Networks Using Complex Numbers. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 1366-1370.	7.2	20

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19	Singularities of Three-Layered Complex-Valued Neural Networks With Split Activation Function. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 1900-1907.	7.2	19
20	Gradient descent learning for quaternionic Hopfield neural networks. Neurocomputing, 2017, 260, 174-179.	3.5	18
21	Projection rule for complex-valued associative memory with large constant terms. Nonlinear Theory and Its Applications IEICE, 2012, 3, 426-435.	0.4	16
22	Symmetric quaternionic Hopfield neural networks. Neurocomputing, 2017, 240, 110-114.	3.5	16
23	Hypercomplex Widely Linear Estimation Through the Lens of Underpinning Geometry. IEEE Transactions on Signal Processing, 2019, 67, 3985-3994.	3.2	16
24	Twisted quaternary neural networks. IEEJ Transactions on Electrical and Electronic Engineering, 2012, 7, 397-401.	0.8	15
25	Storage capacity of hyperbolic Hopfield neural networks. Neurocomputing, 2019, 369, 185-190.	3.5	15
26	Hopfield neural networks using Klein four-group. Neurocomputing, 2020, 387, 123-128.	3.5	15
27	Global Hyperbolic Hopfield Neural Networks. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2016, E99.A, 2511-2516.	0.2	14
28	Fundamental Abilities of Rotor Associative Memory. , 2010, , .		13
29	Storage capacity of rotor Hopfield neural networks. Neurocomputing, 2018, 316, 30-33.	3.5	13
30	Fixed points of split quaternionic hopfield neural networks. Signal Processing, 2017, 136, 38-42.	2.1	11
31	Uniqueness theorem for quaternionic neural networks. Signal Processing, 2017, 136, 102-106.	2.1	11
32	$\mathbb{C}(2)$ -Valued Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 3833-3838.	7.2	11
33	Bicomplex-valued twin-hyperbolic Hopfield neural networks. Neurocomputing, 2021, 434, 203-210.	3.5	11
34	Hyperbolic Hopfield neural networks with four-state neurons. IEEJ Transactions on Electrical and Electronic Engineering, 2017, 12, 428-433.	0.8	10
35	Complex-valued Hopfield neural networks with real weights in synchronous mode. Neurocomputing, 2021, 423, 535-540.	3.5	10
36	Construction of high-dimensional neural networks by linear connections of matrices. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq0 0 0orgBT /Overlock 10 TF		

#	ARTICLE	IF	CITATIONS
37	Rotor Associative Memory with a Periodic Activation Function. , 2012, , .		9
38	Multistate vector product hopfield neural networks. Neurocomputing, 2018, 272, 425-431.	3.5	9
39	Complex-valued multidirectional associative memory. Electrical Engineering in Japan (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.2	8
40	Fast Recall for Complex-Valued Hopfield Neural Networks with Projection Rules. Computational Intelligence and Neuroscience, 2017, 2017, 1-6.	1.1	8
41	Quaternion-Valued Twin-Multistate Hopfield Neural Networks With Dual Connections. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 892-899.	7.2	8
42	Dynamic Complex-Valued Associative Memory with Strong Bias Terms. Lecture Notes in Computer Science, 2011, , 509-518.	1.0	8
43	Uniqueness Theorem of Complex-Valued Neural Networks with Polar-Represented Activation Function. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2015, E98.A, 1937-1943.	0.2	7
44	Chaotic pseudo-orthogonalized Hopfield associative memory. Neurocomputing, 2017, 241, 147-151.	3.5	7
45	Pseudomemories of two-dimensional multistate hopfield neural networks. IEEJ Transactions on Electrical and Electronic Engineering, 2017, 12, 269-272.	0.8	7
46	Split Quaternion-Valued Twin-Multistate Hopfield Neural Networks. Advances in Applied Clifford Algebras, 2020, 30, 1.	0.5	7
47	Multidirectional associative memory with a hidden layer. Systems and Computers in Japan, 2002, 33, 1-9.	0.2	6
48	Chaotic complex-valued bidirectional associative memory with a real-valued context part. Nonlinear Theory and Its Applications IEICE, 2013, 4, 299-312.	0.4	6
49	On the performance of Quaternionic Bidirectional Auto-Associative Memory. , 2015, , .		6
50	Three-Dimensional Quaternionic Hopfield Neural Networks. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2017, E100.A, 1575-1577.	0.2	6
51	Two-Level Complex-Valued Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 2274-2278.	7.2	6
52	Quaternion Projection Rule for Rotor Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 900-908.	7.2	6
53	Gradient Descent Learning for Rotor Associative Memory. IEEJ Transactions on Electronics, Information and Systems, 2011, 131, 116-121.	0.1	6
54	Multidirectional associative memory with two hidden layers. IEEJ Transactions on Electrical and Electronic Engineering, 2013, 8, 299-300.	0.8	5

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55	Complex-valued bidirectional auto-associative memory. , 2013, , .		5
56	Synthesis of complex- and hyperbolic-valued Hopfield neural networks. Neurocomputing, 2021, 423, 80-88.	3.5	5
57	Diagonal rotor Hopfield neural networks. Neurocomputing, 2020, 415, 40-47.	3.5	5
58	Prime producing quadratic polynomials and class-number one problem for real quadratic fields. Proceedings of the Japan Academy Series A: Mathematical Sciences, 1990, 66, .	0.3	5
59	Dual- $\epsilon$ -numbered Hopfield neural networks. IEEJ Transactions on Electrical and Electronic Engineering, 2018, 13, 280-284.	0.8	4
60	Hyperbolic-Valued Hopfield Neural Networks in Synchronous Mode. Neural Computation, 2020, 32, 1685-1696.	1.3	4
61	Hyperbolic-valued Hopfield neural networks in hybrid mode. Neurocomputing, 2021, 440, 275-278.	3.5	4
62	Information geometry of rotor Boltzmann machines. Nonlinear Theory and Its Applications IEICE, 2016, 7, 266-282.	0.4	3
63	Storage Capacities of Twin-Multistate Quaternion Hopfield Neural Networks. Computational Intelligence and Neuroscience, 2018, 2018, 1-5.	1.1	3
64	Bicomplex Projection Rule for Complex-Valued Hopfield Neural Networks. Neural Computation, 2020, 32, 2237-2248.	1.3	3
65	Matrix-valued twin-multistate Hopfield neural networks. Neurocomputing, 2020, 397, 108-113.	3.5	3
66	Stability Conditions of Bicomplex-Valued Hopfield Neural Networks. Neural Computation, 2021, 33, 552-562.	1.3	3
67	Reducing Spurious States by Rotor Associative Memory. IEEJ Transactions on Electronics, Information and Systems, 2011, 131, 109-115.	0.1	3
68	Three-Dimensional Associative Memory Using Exterior Product. IEEJ Transactions on Electronics, Information and Systems, 2004, 124, 150-156.	0.1	2
69	Pattern Retrieval by Quaternionic Associative Memory with Dual Connections. Lecture Notes in Computer Science, 2016, , 317-325.	1.0	2
70	Fixed points of symmetric complex-valued Hopfield neural networks. Neurocomputing, 2018, 275, 132-136.	3.5	2
71	Reducibilities of hyperbolic neural networks. Neurocomputing, 2020, 378, 129-141.	3.5	2
72	On Ono's problem for quadratic fields. Proceedings of the Japan Academy Series A: Mathematical Sciences, 1993, 69, .	0.3	2

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73	Multidirectional associative memory with self-connections. Nonlinear Theory and Its Applications IEICE, 2014, 5, 222-234.	0.4	1
74	Retrieval performance of Hopfield Associative Memory with Complex-valued and Real-valued neurons. , 2016, , .		1
75	Chaotic complex-valued bipartite auto-associative memory with a periodic activation function. IEEJ Transactions on Electrical and Electronic Engineering, 2017, 12, 584-588.	0.8	1
76	Gradient Descent Learning for Hyperbolic Hopfield Associative Memory. Transactions of the Institute of Systems Control and Information Engineers, 2021, 34, 11-22.	0.1	1
77	Information geometry of hyperbolic-valued Boltzmann machines. Neurocomputing, 2021, 431, 163-168.	3.5	1
78	Noise-Robust Projection Rule for Rotor and Matrix-Valued Hopfield Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 567-576.	7.2	1
79	On generators of ideal class groups in quadratic fields. Japanese Journal of Mathematics, 1995, 21, 105-116.	0.8	0
80	A Projection Rule for Complex-Valued Associative Memory with Partial Connections. IEEJ Transactions on Electrical and Electronic Engineering, 2020, 15, 1327-1336.	0.8	0
81	Noise Robust Projection Rule for Klein Hopfield Neural Networks. Neural Computation, 2021, 33, 1698-1716.	1.3	0
82	Storage Capacity of Quaternion-Valued Hopfield Neural Networks With Dual Connections. Neural Computation, 2021, 33, 2226-2240.	1.3	0