

Chunhua Wang

List of Publications by Year in descending order

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117
papers

4,823
citations

66336

42
h-index

102480

66
g-index

120
all docs

120
docs citations

120
times ranked

1566
citing authors

#	ARTICLE	IF	CITATIONS
1	A hyper-chaos-based image encryption algorithm using pixel-level permutation and bit-level permutation. <i>Optics and Lasers in Engineering</i> , 2017, 90, 238-246.	3.8	325
2	A novel image encryption scheme based on conservative hyperchaotic system and closed-loop diffusion between blocks. <i>Signal Processing</i> , 2020, 171, 107484.	3.7	156
3	Firing multistability in a locally active memristive neuron model. <i>Nonlinear Dynamics</i> , 2020, 100, 3667-3683.	5.2	142
4	A universal emulator for memristor, memcapacitor, and meminductor and its chaotic circuit. <i>Chaos</i> , 2019, 29, 013141.	2.5	139
5	An image encryption algorithm based on a hidden attractor chaos system and the Knuth's "Durstenfeld algorithm. <i>Optics and Lasers in Engineering</i> , 2020, 128, 105995.	3.8	139
6	Hidden extreme multistability with hyperchaos and transient chaos in a Hopfield neural network affected by electromagnetic radiation. <i>Nonlinear Dynamics</i> , 2020, 99, 2369-2386.	5.2	131
7	A novel non-equilibrium hyperchaotic multi-wing system via introducing memristor. <i>International Journal of Circuit Theory and Applications</i> , 2018, 46, 84-98.	2.0	126
8	Review on chaotic dynamics of memristive neuron and neural network. <i>Nonlinear Dynamics</i> , 2021, 106, 959-973.	5.2	125
9	Generating hyperchaotic multi-wing attractor in a 4D memristive circuit. <i>Nonlinear Dynamics</i> , 2016, 85, 2653-2663.	5.2	108
10	A Multi-Stable Memristor and its Application in a Neural Network. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020, 67, 3472-3476.	3.0	105
11	A New Chaotic Image Encryption Scheme Using Breadth-First Search and Dynamic Diffusion. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2018, 28, 1850047.	1.7	98
12	Multi-piecewise quadratic nonlinearity memristor and its 2D-scroll and 2D-scroll chaotic attractors system. <i>Chaos</i> , 2017, 27, 033114.	2.5	97
13	Brain-Like Initial-Boosted Hyperchaos and Application in Biomedical Image Encryption. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 8839-8850.	11.3	96
14	Various Attractors, Coexisting Attractors and Antimonotonicity in a Simple Fourth-Order Memristive Twin-T Oscillator. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2018, 28, 1850050.	1.7	89
15	A Novel Color Image Encryption Algorithm Based on Hyperchaotic System and Permutation-Diffusion Architecture. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2019, 29, 1950115.	1.7	88
16	A simple locally active memristor and its application in HR neurons. <i>Chaos</i> , 2020, 30, 053118.	2.5	85
17	Generating Four-Wing Hyperchaotic Attractor and Two-Wing, Three-Wing, and Four-Wing Chaotic Attractors in 4D Memristive System. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2017, 27, 1750027.	1.7	80
18	Chaotic dynamics in a neural network with different types of external stimuli. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2020, 90, 105390.	3.3	80

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19	An Extremely Simple Multiwing Chaotic System: Dynamics Analysis, Encryption Application, and Hardware Implementation. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 12708-12719.	7.9	79
20	A Memristive Hyperchaotic Multiscroll Jerk System with Controllable Scroll Numbers. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2017, 27, 1750091.	1.7	78
21	Hybrid multisynchronization of coupled multistable memristive neural networks with time delays. <i>Neurocomputing</i> , 2019, 363, 281-294.	5.9	77
22	A New 4D Four-Wing Memristive Hyperchaotic System: Dynamical Analysis, Electronic Circuit Design, Shape Synchronization and Secure Communication. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2050147.	1.7	77
23	Multiscroll Hyperchaotic System with Hidden Attractors and Its Circuit Implementation. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2019, 29, 1950117.	1.7	74
24	Hyperchaotic memristive ring neural network and application in medical image encryption. <i>Nonlinear Dynamics</i> , 2022, 110, 841-855.	5.2	72
25	Neural Bursting and Synchronization Emulated by Neural Networks and Circuits. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2021, 68, 3397-3410.	5.4	71
26	A Memristive Synapse Control Method to Generate Diversified Multistructure Chaotic Attractors. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2023, 42, 942-955.	2.7	71
27	A New Simple Chaotic Circuit Based on Memristor. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2016, 26, 1650145.	1.7	70
28	A Novel Multi-Attractor Period Multi-Scroll Chaotic Integrated Circuit Based on CMOS Wide Adjustable CCCII. <i>IEEE Access</i> , 2019, 7, 16336-16350.	4.2	70
29	Four-Wing Hidden Attractors with One Stable Equilibrium Point. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2050086.	1.7	70
30	A fractional-order multistable locally active memristor and its chaotic system with transient transition, state jump. <i>Nonlinear Dynamics</i> , 2021, 104, 4523-4541.	5.2	69
31	Multi-scroll hidden attractors with two stable equilibrium points. <i>Chaos</i> , 2019, 29, 093112.	2.5	68
32	A novel hyper-chaotic image encryption scheme based on quantum genetic algorithm and compressive sensing. <i>Multimedia Tools and Applications</i> , 2020, 79, 29243-29263.	3.9	67
33	Memristor-based neural networks with weight simultaneous perturbation training. <i>Nonlinear Dynamics</i> , 2019, 95, 2893-2906.	5.2	66
34	Memristive Circuit Implementation of Biological Nonassociative Learning Mechanism and Its Applications. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2020, 14, 1036-1050.	4.0	66
35	Influences of electromagnetic radiation distribution on chaotic dynamics of a neural network. <i>Applied Mathematics and Computation</i> , 2020, 369, 124840.	2.2	64
36	An Image Encryption Algorithm Based on Random Walk and Hyperchaotic Systems. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2050060.	1.7	57

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37	Cluster Synchronization on Multiple Nonlinearly Coupled Dynamical Subnetworks of Complex Networks With Nonidentical Nodes. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2017, 28, 570-583.	11.3	54
38	A novel image encryption algorithm based on bit-plane matrix rotation and hyper chaotic systems. <i>Multimedia Tools and Applications</i> , 2020, 79, 5573-5593.	3.9	54
39	Image segmentation encryption algorithm with chaotic sequence generation participated by cipher and multi-feedback loops. <i>Multimedia Tools and Applications</i> , 2021, 80, 13821-13840.	3.9	52
40	Synchronization of inertial memristive neural networks with time-varying delays via static or dynamic event-triggered control. <i>Neurocomputing</i> , 2020, 404, 367-380.	5.9	50
41	Single CDTA-based current-mode quadrature oscillator. <i>AEU - International Journal of Electronics and Communications</i> , 2012, 66, 933-936.	2.9	46
42	Time-controllable combinatorial inner synchronization and outer synchronization of anti-star networks and its application in secure communication. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2015, 22, 623-640.	3.3	43
43	Chaotic system with bondorbital attractors. <i>Nonlinear Dynamics</i> , 2019, 97, 2159-2174.	5.2	42
44	Locally Active Memristor with Three Coexisting Pinched Hysteresis Loops and Its Emulator Circuit. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2050184.	1.7	39
45	Robust Multimode Function Synchronization of Memristive Neural Networks With Parameter Perturbations and Time-Varying Delays. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2022, 52, 260-274.	9.3	39
46	A Novel Hyperchaotic Image Encryption System Based on Particle Swarm Optimization Algorithm and Cellular Automata. <i>Security and Communication Networks</i> , 2021, 2021, 1-15.	1.5	39
47	Memristor-based neural network circuit with weighted sum simultaneous perturbation training and its applications. <i>Neurocomputing</i> , 2021, 462, 581-590.	5.9	38
48	Weighted sum synchronization of memristive coupled neural networks. <i>Neurocomputing</i> , 2020, 403, 211-223.	5.9	37
49	A novel four-wing non-equilibrium chaotic system and its circuit implementation. <i>Pramana - Journal of Physics</i> , 2016, 86, 801-807.	1.8	36
50	Memristive Circuit Implementation of a Self-Repairing Network Based on Biological Astrocytes in Robot Application. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2022, 33, 2106-2120.	11.3	36
51	Exponential multistability of memristive Cohen-Grossberg neural networks with stochastic parameter perturbations. <i>Applied Mathematics and Computation</i> , 2020, 386, 125483.	2.2	33
52	A novel double-incidence and multi-band left-handed metamaterials composed of double Z-shaped structure. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 2534-2544.	2.2	32
53	Implementation of a new memristor-based multiscroll hyperchaotic system. <i>Pramana - Journal of Physics</i> , 2017, 88, 1.	1.8	31
54	Emotion model of associative memory possessing variable learning rates with time delay. <i>Neurocomputing</i> , 2021, 460, 117-125.	5.9	30

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55	Observer-based synchronization of memristive neural networks under DoS attacks and actuator saturation and its application to image encryption. <i>Applied Mathematics and Computation</i> , 2022, 425, 127080.	2.2	30
56	Complete switched modified function projective synchronization of a five-term chaotic system with uncertain parameters and disturbances. <i>Pramana - Journal of Physics</i> , 2013, 80, 223-235.	1.8	29
57	The Design and Realization of a Hyper-Chaotic Circuit Based on a Flux-Controlled Memristor with Linear Memductance. <i>Journal of Circuits, Systems and Computers</i> , 2018, 27, 1850038.	1.5	29
58	Cluster output synchronization for memristive neural networks. <i>Information Sciences</i> , 2022, 589, 459-477.	6.9	29
59	Memristor-based affective associative memory neural network circuit with emotional gradual processes. <i>Neural Computing and Applications</i> , 2022, 34, 13667-13682.	5.6	29
60	Memristive Circuit Implementation of Context-Dependent Emotional Learning Network and Its Application in Multitask. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2022, 41, 3052-3065.	2.7	28
61	Tri-valued memristor-based hyper-chaotic system with hidden and coexistent attractors. <i>Chaos, Solitons and Fractals</i> , 2022, 159, 112177.	5.1	23
62	Novel Third-Order Quadrature Oscillators with Grounded Capacitors. <i>Automatika</i> , 2015, 56, 207-216.	2.0	22
63	Novel AM/FM/ASK/FSK/PSK/QAM Signal Generator Based on a Digitally Programmable CDTA. <i>Circuits, Systems, and Signal Processing</i> , 2015, 34, 1635-1653.	2.0	22
64	Cluster synchronization on multiple sub-networks of complex networks with nonidentical nodes via pinning control. <i>Nonlinear Dynamics</i> , 2016, 83, 1079-1100.	5.2	21
65	Current Differencing Cascaded Transconductance Amplifier (CDCTA) and Its Applications on Current-Mode nth-Order Filters. <i>Circuits, Systems, and Signal Processing</i> , 2013, 32, 2047-2063.	2.0	19
66	Multilayer Memristive Neural Network Circuit Based on Online Learning for License Plate Detection. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2022, 41, 3000-3011.	2.7	18
67	CDTA-based electronically tunable current-mode quadrature oscillator. <i>International Journal of Electronics</i> , 2014, 101, 1086-1095.	1.4	17
68	Design of a Low Voltage Highly Linear 2.4 GHz Up-Conversion Mixer in 0.18 μm CMOS Technology. <i>Wireless Personal Communications</i> , 2013, 70, 57-68.	2.7	16
69	A simple multi-scroll chaotic oscillator employing CCIs. <i>Optik</i> , 2015, 126, 824-827.	2.9	16
70	A new 3D multi-scroll chaotic system generated with three types of hidden attractors. <i>European Physical Journal: Special Topics</i> , 2021, 230, 1863-1871.	2.6	16
71	Dynamic Analysis and Circuit Realization of a Novel No-Equilibrium 5D Memristive Hyperchaotic System with Hidden Extreme Multistability. <i>Complexity</i> , 2020, 2020, 1-16.	1.6	16
72	Novel SRR-loaded CPW-fed UWB antenna with wide band-notched characteristics. <i>International Journal of Microwave and Wireless Technologies</i> , 2017, 9, 875-880.	1.9	15

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73	A memristor-based circuit design of pavlov associative memory with secondary conditional reflex and its application. <i>Neurocomputing</i> , 2021, 463, 341-354.	5.9	14
74	Generating variable number of wings from a novel four-dimensional hyperchaotic system with one equilibrium. <i>Optik</i> , 2014, 125, 1371-1376.	2.9	12
75	A multi-value 3D crossbar array nonvolatile memory based on pure memristors. <i>European Physical Journal: Special Topics</i> , 2022, 231, 3119-3130.	2.6	11
76	A Novel Adaptive Active Control Projective Synchronization of Chaotic Systems. <i>Journal of Computational and Nonlinear Dynamics</i> , 2018, 13, .	1.2	10
77	A novel parallel chaotic system with greatly improved Lyapunov exponent and chaotic range. <i>International Journal of Modern Physics B</i> , 2020, 34, 2050048.	2.0	10
78	Solving Non-Homogeneous Linear Ordinary Differential Equations Using Memristor-Capacitor Circuit. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2021, 68, 4495-4507.	5.4	10
79	Current-mode multi-scroll chaos generator employing CCCII. <i>Electronics Letters</i> , 2016, 52, 1295-1297.	1.0	9
80	Universal Current-Mode Filters Based on OTA and MO-CCCA. <i>IETE Journal of Research</i> , 2018, 64, 897-906.	2.6	9
81	Combinatorial synchronization of complex multiple networks with unknown parameters. <i>Nonlinear Dynamics</i> , 2015, 79, 307-324.	5.2	8
82	A novel ± 0.8 V high-performance voltage-tunable CDTA with enhanced bandwidth. <i>International Journal of Electronics</i> , 2016, 103, 704-721.	1.4	8
83	A new method for generating chaotic system with arbitrary shaped distributed attractors. <i>Chaos</i> , 2018, 28, 073106.	2.5	8
84	Design and simulation of novel amplifier-based mixer for ISM band wireless applications. <i>International Journal of Circuit Theory and Applications</i> , 2015, 43, 1794-1800.	2.0	7
85	A Novel Low Voltage Low Power High Linearity Self-biasing Current-reuse Up-conversion Mixer. <i>Wireless Personal Communications</i> , 2015, 80, 277-287.	2.7	7
86	Hybrid combinatorial synchronization on multiple sub-networks of complex network with unknown boundaries of uncertainties. <i>Optik</i> , 2016, 127, 11037-11048.	2.9	7
87	A memristor-based circuit design and implementation for blocking on Pavlov associative memory. <i>Neural Computing and Applications</i> , 2022, 34, 14745-14761.	5.6	7
88	Capacitor Cross-Coupled Fully-differential CMOS Folded Cascode LNAs with Ultra Low Power Consumption. <i>Wireless Personal Communications</i> , 2014, 78, 45-55.	2.7	6
89	A Time-Delayed Hyperchaotic System Composed of Multiscroll Attractors With Multiple Positive Lyapunov Exponents. <i>Journal of Computational and Nonlinear Dynamics</i> , 2017, 12, .	1.2	6
90	A Novel CMOS CCCII with Wide Tunable $R_{sub}<i>x</i>$ and Its Application. <i>Journal of Circuits, Systems and Computers</i> , 2018, 27, 1850198.	1.5	6

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91	One-Step Calculation Circuit of FFT and Its Application. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 2781-2793.	5.4	6
92	Memristive Cluster Based Compact High-Density Nonvolatile Memory Design and Application for Image Storage. Micromachines, 2022, 13, 844.	2.9	5
93	Multifunction Current Differencing Cascaded Transconductance Amplifier (MCDCTA) and Its Application to Current-Mode Multiphase Sinusoidal Oscillator. Journal of Electrical Engineering, 2015, 66, 241-249.	0.7	4
94	A Novel Current-Mode High-Frequency Polyphase Filter using Multi-Output Current Differencing Transconductance Amplifiers. Journal of Electrical Engineering, 2016, 67, 311-322.	0.7	4
95	A Multiple-Feedback UWB LNA with Low Noise and Improved Linearity. IETE Journal of Research, 2018, 64, 442-450.	2.6	4
96	A Novel High Linearity and Low Power Folded CMOS LNA for UWB Receivers. Journal of Circuits, Systems and Computers, 2018, 27, 1850047.	1.5	4
97	A surrogate-based parallel optimization of analog circuits using multi-acquisition functions. AEU - International Journal of Electronics and Communications, 2022, 146, 154105.	2.9	4
98	A full-function memristive pavlov associative memory circuit with inter-stimulus interval effect. Neurocomputing, 2022, 506, 68-83.	5.9	4
99	Star-Like Network Synchronization of a New Four-Wing Chaotic System. Arabian Journal for Science and Engineering, 2014, 39, 8417-8430.	1.1	3
100	Systematic Design of Current-Mode Multiple-Loop Feedback Filters Based on a Single CDCTA. IETE Journal of Research, 2017, 63, 435-447.	2.6	3
101	A Novel Compact Ultra-Wideband Antenna with Quad Notched Bands Based on S-SCRLHs Resonator. Wireless Personal Communications, 2017, 97, 4667-4679.	2.7	3
102	Hidden multiwing chaotic attractors with multiple stable equilibrium points. Circuit World, 2023, 49, 583-594.	0.9	3
103	A 4–6GHz current-mode differential transconductance wide band LNA. , 2011, , .		2
104	Design and FPGA Verification of UHF RFID reader digital baseband. , 2011, , .		2
105	A High Linearity and Low Power 3.1–10.6GHz CMOS Up-Conversion Mixer for UWB Applications. Wireless Personal Communications, 2013, 70, 1623-1632.	2.7	2
106	Resistorless Reconfigurable nth-Order Filter Based on DPCDTA for Multi-mode Filtering Applications. Arabian Journal for Science and Engineering, 2015, 40, 2423-2436.	1.1	2
107	A wideband linear tunable CDTA and its application in field programmable analogue array. Analog Integrated Circuits and Signal Processing, 2016, 88, 465-483.	1.4	2
108	A linearized and low noise CMOS mixer with B–type amplifier–based sub–harmonic balun. International Journal of Circuit Theory and Applications, 2016, 44, 2003-2017.	2.0	2

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109	Topology Identification of General Uncertain Complex Dynamic Networks with Time Delay and Noise Perturbation Based on Generalized Lag Synchronization. , 2017, , .		2
110	Subharmonic upconversion mixer using 0.18 μ m CMOS technology. Electronics Letters, 2014, 50, 1955-1957.	1.0	1
111	A Novel Compact UWB Bandpass Filter with Quad-Notched Bands Based on S-SCRLHs Resonator. Frequenz, 2015, 69, .	0.9	1
112	A Low Voltage High Gain Transformer Noise-Canceling Current Mode Ultrawideband CMOS Low Noise Amplifier. Frequenz, 2012, 66, .	0.9	0
113	A Novel Current-Mode Differential Transconductance LNA for IEEE 802.11a Application. Frequenz, 2012, 66, .	0.9	0
114	An ultra low power low noise amplifier for 3.1-10.6 GHz UWB receivers. , 2013, , .		0
115	A 0.6-V 5.2 GHz Folded Cascode LNA with Transformer-feedback Technique for Ultra Low Power Applications. Frequenz, 2013, 67, .	0.9	0
116	A Tunable Leapfrog Complex Filter for High Frequency and Wide Bandwidth Using Multi-Output Current Differencing Transconductance Amplifiers. IETE Journal of Research, 2016, 62, 694-704.	2.6	0
117	Dual-Band Patch Antenna Based on Resonant-Type Composite Right/Left-Handed Transmission Lines for IMT2000 and WLAN Applications. Wireless Personal Communications, 2017, 95, 1159-1169.	2.7	0