

Chunhua Wang

List of Publications by Year in descending order

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117
papers

4,823
citations

66343

42
h-index

102487

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. Optics and Lasers in Engineering, 2017, 90, 238-246.	3.8	325
2	A novel image encryption scheme based on conservative hyperchaotic system and closed-loop diffusion between blocks. Signal Processing, 2020, 171, 107484.	3.7	156
3	Firing multistability in a locally active memristive neuron model. Nonlinear Dynamics, 2020, 100, 3667-3683.	5.2	142
4	A universal emulator for memristor, memcapacitor, and meminductor and its chaotic circuit. Chaos, 2019, 29, 013141.	2.5	139
5	An image encryption algorithm based on a hidden attractor chaos system and the Knuth–Durstenfeld algorithm. Optics and Lasers in Engineering, 2020, 128, 105995.	3.8	139
6	Hidden extreme multistability with hyperchaos and transient chaos in a Hopfield neural network affected by electromagnetic radiation. Nonlinear Dynamics, 2020, 99, 2369-2386.	5.2	131
7	A novel non-equilibrium hyperchaotic multi-wing system via introducing memristor. International Journal of Circuit Theory and Applications, 2018, 46, 84-98.	2.0	126
8	Review on chaotic dynamics of memristive neuron and neural network. Nonlinear Dynamics, 2021, 106, 959-973.	5.2	125
9	Generating hyperchaotic multi-wing attractor in a 4D memristive circuit. Nonlinear Dynamics, 2016, 85, 2653-2663.	5.2	108
10	A Multi-Stable Memristor and its Application in a Neural Network. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 3472-3476.	3.0	105
11	A New Chaotic Image Encryption Scheme Using Breadth-First Search and Dynamic Diffusion. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2018, 28, 1850047.	1.7	98
12	Multi-piecewise quadratic nonlinearity memristor and its 2N-scroll and 2N+1-scroll chaotic attractors system. Chaos, 2017, 27, 033114.	2.5	97
13	Brain-Like Initial-Boosted Hyperchaos and Application in Biomedical Image Encryption. IEEE Transactions on Industrial Informatics, 2022, 18, 8839-8850.	11.3	96
14	Various Attractors, Coexisting Attractors and Antimonotonicity in a Simple Fourth-Order Memristive Twin-T Oscillator. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2018, 28, 1850050.	1.7	89
15	A Novel Color Image Encryption Algorithm Based on Hyperchaotic System and Permutation-Diffusion Architecture. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950115.	1.7	88
16	A simple locally active memristor and its application in HR neurons. Chaos, 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. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750027.	1.7	80
18	Chaotic dynamics in a neural network with different types of external stimuli. Communications in Nonlinear Science and Numerical Simulation, 2020, 90, 105390.	3.3	80

#	ARTICLE	IF	CITATIONS
19	An Extremely Simple Multiwing Chaotic System: Dynamics Analysis, Encryption Application, and Hardware Implementation. IEEE Transactions on Industrial Electronics, 2021, 68, 12708-12719.	7.9	79
20	A Memristive Hyperchaotic Multiscroll Jerk System with Controllable Scroll Numbers. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750091.	1.7	78
21	Hybrid multisynchronization of coupled multistable memristive neural networks with time delays. Neurocomputing, 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. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050147.	1.7	77
23	Multiscroll Hyperchaotic System with Hidden Attractors and Its Circuit Implementation. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950117.	1.7	74
24	Hyperchaotic memristive ring neural network and application in medical image encryption. Nonlinear Dynamics, 2022, 110, 841-855.	5.2	72
25	Neural Bursting and Synchronization Emulated by Neural Networks and Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 3397-3410.	5.4	71
26	A Memristive Synapse Control Method to Generate Diversified Multistructure Chaotic Attractors. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2023, 42, 942-955.	2.7	71
27	A New Simple Chaotic Circuit Based on Memristor. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650145.	1.7	70
28	A Novel Multi-Attractor Period Multi-Scroll Chaotic Integrated Circuit Based on CMOS Wide Adjustable CCCII. IEEE Access, 2019, 7, 16336-16350.	4.2	70
29	Four-Wing Hidden Attractors with One Stable Equilibrium Point. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050086.	1.7	70
30	A fractional-order multistable locally active memristor and its chaotic system with transient transition, state jump. Nonlinear Dynamics, 2021, 104, 4523-4541.	5.2	69
31	Multi-scroll hidden attractors with two stable equilibrium points. Chaos, 2019, 29, 093112.	2.5	68
32	A novel hyper-chaotic image encryption scheme based on quantum genetic algorithm and compressive sensing. Multimedia Tools and Applications, 2020, 79, 29243-29263.	3.9	67
33	Memristor-based neural networks with weight simultaneous perturbation training. Nonlinear Dynamics, 2019, 95, 2893-2906.	5.2	66
34	Memristive Circuit Implementation of Biological Nonassociative Learning Mechanism and Its Applications. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1036-1050.	4.0	66
35	Influences of electromagnetic radiation distribution on chaotic dynamics of a neural network. Applied Mathematics and Computation, 2020, 369, 124840.	2.2	64
36	An Image Encryption Algorithm Based on Random Walk and Hyperchaotic Systems. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 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. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 570-583.	11.3	54
38	A novel image encryption algorithm based on bit-plane matrix rotation and hyper chaotic systems. Multimedia Tools and Applications, 2020, 79, 5573-5593.	3.9	54
39	Image segmentation encryption algorithm with chaotic sequence generation participated by cipher and multi-feedback loops. Multimedia Tools and Applications, 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. Neurocomputing, 2020, 404, 367-380.	5.9	50
41	Single CDTA-based current-mode quadrature oscillator. AEU - International Journal of Electronics and Communications, 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. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 623-640.	3.3	43
43	Chaotic system with bondorbital attractors. Nonlinear Dynamics, 2019, 97, 2159-2174.	5.2	42
44	Locally Active Memristor with Three Coexisting Pinched Hysteresis Loops and Its Emulator Circuit. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050184.	1.7	39
45	Robust Multimode Function Synchronization of Memristive Neural Networks With Parameter Perturbations and Time-Varying Delays. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 260-274.	9.3	39
46	A Novel Hyperchaotic Image Encryption System Based on Particle Swarm Optimization Algorithm and Cellular Automata. Security and Communication Networks, 2021, 2021, 1-15.	1.5	39
47	Memristor-based neural network circuit with weighted sum simultaneous perturbation training and its applications. Neurocomputing, 2021, 462, 581-590.	5.9	38
48	Weighted sum synchronization of memristive coupled neural networks. Neurocomputing, 2020, 403, 211-223.	5.9	37
49	A novel four-wing non-equilibrium chaotic system and its circuit implementation. Pramana - Journal of Physics, 2016, 86, 801-807.	1.8	36
50	Memristive Circuit Implementation of a Self-Repairing Network Based on Biological Astrocytes in Robot Application. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 2106-2120.	11.3	36
51	Exponential multistability of memristive Cohen-Grossberg neural networks with stochastic parameter perturbations. Applied Mathematics and Computation, 2020, 386, 125483.	2.2	33
52	A novel double-incidence and multi-band left-handed metamaterials composed of double Z-shaped structure. Journal of Materials Science: Materials in Electronics, 2016, 27, 2534-2544.	2.2	32
53	Implementation of a new memristor-based multiscroll hyperchaotic system. Pramana - Journal of Physics, 2017, 88, 1.	1.8	31
54	Emotion model of associative memory possessing variable learning rates with time delay. Neurocomputing, 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 2.4GHz Up-Conversion Mixer in 0.18μm 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. Neurocomputing, 2021, 463, 341-354.	5.9	14
74	Generating variable number of wings from a novel four-dimensional hyperchaotic system with one equilibrium. Optik, 2014, 125, 1371-1376.	2.9	12
75	A multi-value 3D crossbar array nonvolatile memory based on pure memristors. European Physical Journal: Special Topics, 2022, 231, 3119-3130.	2.6	11
76	A Novel Adaptive Active Control Projective Synchronization of Chaotic Systems. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	1.2	10
77	A novel parallel chaotic system with greatly improved Lyapunov exponent and chaotic range. International Journal of Modern Physics B, 2020, 34, 2050048.	2.0	10
78	Solving Non-Homogeneous Linear Ordinary Differential Equations Using Memristor-Capacitor Circuit. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4495-4507.	5.4	10
79	Current-mode multi-scroll chaos generator employing CCCII. Electronics Letters, 2016, 52, 1295-1297.	1.0	9
80	Universal Current-Mode Filters Based on OTA and MO-CCCA. IETE Journal of Research, 2018, 64, 897-906.	2.6	9
81	Combinatorial synchronization of complex multiple networks with unknown parameters. Nonlinear Dynamics, 2015, 79, 307-324.	5.2	8
82	A novel ± 0.8 V high-performance voltage-tunable CDTA with enhanced bandwidth. International Journal of Electronics, 2016, 103, 704-721.	1.4	8
83	A new method for generating chaotic system with arbitrary shaped distributed attractors. Chaos, 2018, 28, 073106.	2.5	8
84	Design and simulation of novel amplifier-based mixer for ISM band wireless applications. International Journal of Circuit Theory and Applications, 2015, 43, 1794-1800.	2.0	7
85	A Novel Low Voltage Low Power High Linearity Self-biasing Current-reuse Up-conversion Mixer. Wireless Personal Communications, 2015, 80, 277-287.	2.7	7
86	Hybrid combinatorial synchronization on multiple sub-networks of complex network with unknown boundaries of uncertainties. Optik, 2016, 127, 11037-11048.	2.9	7
87	A memristor-based circuit design and implementation for blocking on Pavlov associative memory. Neural Computing and Applications, 2022, 34, 14745-14761.	5.6	7
88	Capacitor Cross-Coupled Fully-differential CMOS Folded Cascode LNAs with Ultra Low Power Consumption. Wireless Personal Communications, 2014, 78, 45-55.	2.7	6
89	A Time-Delayed Hyperchaotic System Composed of Multiscroll Attractors With Multiple Positive Lyapunov Exponents. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.2	6
90	A Novel CMOS CCCII with Wide Tunable $R_{\text{sub}} < i>x</i>$ and Its Application. Journal of Circuits, Systems and Computers, 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 μm 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