

# Shaobo He

## List of Publications by Year in descending order

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105  
papers

3,718  
citations

126708

33  
h-index

155451

55  
g-index

106  
all docs

106  
docs citations

106  
times ranked

1729  
citing authors

#	ARTICLE	IF	CITATIONS
1	SEIR modeling of the COVID-19 and its dynamics. <i>Nonlinear Dynamics</i> , 2020, 101, 1667-1680.	2.7	464
2	Complexity Analysis and DSP Implementation of the Fractional-Order Lorenz Hyperchaotic System. <i>Entropy</i> , 2015, 17, 8299-8311.	1.1	169
3	Initial offset boosting coexisting attractors in memristive multi-double-scroll Hopfield neural network. <i>Nonlinear Dynamics</i> , 2020, 102, 2821-2841.	2.7	124
4	A discrete memristor model and its application in Hénon map. <i>Chaos, Solitons and Fractals</i> , 2020, 137, 109873.	2.5	119
5	An effective image encryption algorithm based on compressive sensing and 2D-SLIM. <i>Optics and Lasers in Engineering</i> , 2020, 134, 106178.	2.0	104
6	Fractional-order simplest memristor-based chaotic circuit with new derivative. <i>European Physical Journal Plus</i> , 2018, 133, 1.	1.2	98
7	An improved image encryption algorithm with finite computing precision. <i>Signal Processing</i> , 2020, 168, 107340.	2.1	97
8	A higher dimensional chaotic map with discrete memristor. <i>AEU - International Journal of Electronics and Communications</i> , 2021, 129, 153539.	1.7	92
9	Numerical analysis of a fractional-order chaotic system based on conformable fractional-order derivative. <i>European Physical Journal Plus</i> , 2017, 132, 1.	1.2	86
10	Chaos and complexity in a fractional-order financial system with time delays. <i>Chaos, Solitons and Fractals</i> , 2020, 131, 109521.	2.5	84
11	Generalized synchronization of fractional-order hyperchaotic systems and its DSP implementation. <i>Nonlinear Dynamics</i> , 2018, 92, 85-96.	2.7	79
12	Chaos in the discrete memristor-based system with fractional-order difference. <i>Results in Physics</i> , 2021, 24, 104106.	2.0	75
13	Dynamical properties and complexity in fractional-order diffusionless Lorenz system. <i>European Physical Journal Plus</i> , 2016, 131, 1.	1.2	69
14	SF-SIMM high-dimensional hyperchaotic map and its performance analysis. <i>Nonlinear Dynamics</i> , 2017, 89, 2521-2532.	2.7	66
15	Solution and dynamics of a fractional-order 5-D hyperchaotic system with four wings. <i>European Physical Journal Plus</i> , 2017, 132, 1.	1.2	58
16	Self-excited and hidden attractors in a novel chaotic system with complicated multistability. <i>European Physical Journal Plus</i> , 2018, 133, 1.	1.2	57
17	Modeling of discrete fracmemristor and its application. <i>AIP Advances</i> , 2020, 10, .	0.6	57
18	Dynamics and synchronization of conformable fractional-order hyperchaotic systems using the Homotopy analysis method. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 73, 146-164.	1.7	54

#	ARTICLE	IF	CITATIONS
19	Characteristic Analysis and DSP Realization of Fractional-Order Simplified Lorenz System Based on Adomian Decomposition Method. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2015, 25, 1550085.	0.7	48
20	Synchronization of fractional time-delayed financial system using a novel type-2 fuzzy active control method. <i>Chaos, Solitons and Fractals</i> , 2020, 136, 109768.	2.5	47
21	Parameter identification for discrete memristive chaotic map using adaptive differential evolution algorithm. <i>Nonlinear Dynamics</i> , 2022, 107, 1263-1275.	2.7	46
22	Chaos in a Simplest Cyclic Memristive Neural Network. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2022, 32, .	0.7	46
23	Dynamics of a fractional-order simplified unified system based on the Adomian decomposition method. <i>European Physical Journal Plus</i> , 2016, 131, 1.	1.2	44
24	Multivariate Multiscale Complexity Analysis of Self-Reproducing Chaotic Systems. <i>Entropy</i> , 2018, 20, 556.	1.1	44
25	Multivariate permutation entropy and its application for complexity analysis of chaotic systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 461, 812-823.	1.2	43
26	Parameter Identification of Fractional-Order Discrete Chaotic Systems. <i>Entropy</i> , 2019, 21, 27.	1.1	43
27	A nonlinear circuit with two memcapacitors. <i>Nonlinear Dynamics</i> , 2016, 86, 1735-1744.	2.7	40
28	A hyperchaotic map with grid sinusoidal cavity. <i>Chaos, Solitons and Fractals</i> , 2018, 106, 107-117.	2.5	39
29	Detecting chaos in fractional-order nonlinear systems using the smaller alignment index. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 2267-2271.	0.9	37
30	Analysis of three types of initial offset-boosting behavior for a new fractional-order dynamical system. <i>Chaos, Solitons and Fractals</i> , 2021, 143, 110613.	2.5	37
31	A memristive map with coexisting chaos and hyperchaos*. <i>Chinese Physics B</i> , 2021, 30, 110502.	0.7	36
32	Synchronisation of fractional-order time delayed chaotic systems with ring connection. <i>European Physical Journal: Special Topics</i> , 2016, 225, 97-106.	1.2	35
33	Extremely rich dynamics in a memristor-based chaotic system. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	35
34	Synchronization of a Non-Equilibrium Four-Dimensional Chaotic System Using a Disturbance-Observer-Based Adaptive Terminal Sliding Mode Control Method. <i>Entropy</i> , 2020, 22, 271.	1.1	35
35	Parameter estimation of a complex chaotic system with unknown initial values. <i>European Physical Journal Plus</i> , 2018, 133, 1.	1.2	34
36	Dynamics of fractional-order sinusoidally forced simplified Lorenz system and its synchronization. <i>European Physical Journal: Special Topics</i> , 2014, 223, 1591-1600.	1.2	33

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37	Fractional fuzzy entropy algorithm and the complexity analysis for nonlinear time series. <i>European Physical Journal: Special Topics</i> , 2018, 227, 943-957.	1.2	33
38	Complex dynamics and multiple coexisting attractors in a fractional-order microscopic chemical system. <i>European Physical Journal: Special Topics</i> , 2019, 228, 195-207.	1.2	33
39	Chaotic flows with special equilibria. <i>European Physical Journal: Special Topics</i> , 2020, 229, 905-919.	1.2	33
40	Discrete Memristor and Discrete Memristive Systems. <i>Entropy</i> , 2022, 24, 786.	1.1	33
41	Epidemic outbreaks and its control using a fractional order model with seasonality and stochastic infection. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 501, 408-417.	1.2	32
42	A class of higher-dimensional hyperchaotic maps. <i>European Physical Journal Plus</i> , 2019, 134, 1.	1.2	32
43	Chaos and complexity in a fractional-order higher-dimensional multicavity chaotic map. <i>Chaos, Solitons and Fractals</i> , 2020, 131, 109488.	2.5	32
44	Designing an M-dimensional nonlinear model for producing hyperchaos. <i>Chaos, Solitons and Fractals</i> , 2018, 114, 506-515.	2.5	30
45	Solution and dynamics analysis of a fractional-order hyperchaotic system. <i>Mathematical Methods in the Applied Sciences</i> , 2016, 39, 2965-2973.	1.2	29
46	A Multistable Chaotic Jerk System with Coexisting and Hidden Attractors: Dynamical and Complexity Analysis, FPGA-Based Realization, and Chaos Stabilization Using a Robust Controller. <i>Symmetry</i> , 2020, 12, 569.	1.1	29
47	A novel discrete memristive chaotic map. <i>European Physical Journal Plus</i> , 2022, 137, 1.	1.2	26
48	Fractional symbolic network entropy analysis for the fractional-order chaotic systems. <i>Physica Scripta</i> , 2020, 95, 035220.	1.2	25
49	Numerical analysis of a simplest fractional-order hyperchaotic system. <i>Theoretical and Applied Mechanics Letters</i> , 2019, 9, 220-228.	1.3	24
50	A Modified Chaotic Binary Particle Swarm Optimization Scheme and Its Application in Face-Iris Multimodal Biometric Identification. <i>Electronics (Switzerland)</i> , 2021, 10, 217.	1.8	24
51	Dynamics and Optimization Control of a Robust Chaotic Map. <i>IEEE Access</i> , 2019, 7, 160072-160081.	2.6	23
52	Can derivative determine the dynamics of fractional-order chaotic system?. <i>Chaos, Solitons and Fractals</i> , 2018, 115, 14-22.	2.5	22
53	Complexity in the muscular blood vessel model with variable fractional derivative and external disturbances. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 526, 120904.	1.2	22
54	Design of Grid Multiscroll Chaotic Attractors via Transformations. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2015, 25, 1530027.	0.7	21

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55	Chaos and Symbol Complexity in a Conformable Fractional-Order Memcapacitor System. Complexity, 2018, 2018, 1-15.	0.9	19
56	Complex Chaotic Attractor via Fractal Transformation. Entropy, 2019, 21, 1115.	1.1	19
57	Further dynamical analysis of modified Fitzhugh-Nagumo model under the electric field. Nonlinear Dynamics, 2020, 101, 521-529.	2.7	19
58	A fractional-order ship power system with extreme multistability. Nonlinear Dynamics, 2021, 106, 1027-1040.	2.7	19
59	Multiscale permutation Rényi entropy and its application for EEG signals. PLoS ONE, 2018, 13, e0202558.	1.1	18
60	What is the lowest order of the fractional-order chaotic systems to behave chaotically?. Chaos, Solitons and Fractals, 2019, 119, 163-170.	2.5	18
61	Constructing chaotic map with multi-cavity. European Physical Journal Plus, 2020, 135, 1.	1.2	18
62	Characteristic Analysis of Fractional-Order Memristor-Based Hypogenetic Jerk System and Its DSP Implementation. Electronics (Switzerland), 2021, 10, 841.	1.8	18
63	A Fractional-Order Chaotic Sparrow Search Algorithm for Enhancement of Long Distance Iris Image. Mathematics, 2021, 9, 2790.	1.1	18
64	Route to hyperchaos and chimera states in a network of modified Hindmarsh-Rose neuron model with electromagnetic flux and external excitation. European Physical Journal: Special Topics, 2020, 229, 929-942.	1.2	17
65	Multistability and Formation of Spiral Waves in a Fractional-Order Memristor-Based Hyperchaotic $L^{1/4}$ System with No Equilibrium Points. Mathematical Problems in Engineering, 2020, 2020, 1-12.	0.6	16
66	An Improved Return Maps Method for Parameter Estimation of Chaotic Systems. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050058.	0.7	16
67	Complexity and Chimera States in a Ring-Coupled Fractional-Order Memristor Neural Network. Frontiers in Applied Mathematics and Statistics, 2020, 6, .	0.7	15
68	Synchronization for the integer-order and fractional-order chaotic maps based on parameter estimation with JAYA-IPSO algorithm. European Physical Journal Plus, 2020, 135, 1.	1.2	14
69	Dynamics of a hyperchaotic map with spherical attractor. Physica Scripta, 2020, 95, 065215.	1.2	14
70	Multicavity formations and complexity modulation in a hyperchaotic discrete system. Physica A: Statistical Mechanics and Its Applications, 2018, 490, 366-377.	1.2	13
71	The influence of samples on meta-heuristic algorithm for parameter estimation of chaotic system. Modern Physics Letters B, 2019, 33, 1950041.	1.0	13
72	Comments on "Discrete fractional logistic map and its chaos" [Nonlinear Dyn. 75, 283-287 (2014)]. Nonlinear Dynamics, 2019, 97, 897-901.	2.7	13

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73	A memristive chaotic system with flexible attractor growing. European Physical Journal: Special Topics, 2021, 230, 1695-1708.	1.2	13
74	Chaotification of Sine-series maps based on the internal perturbation model. Results in Physics, 2021, 31, 105010.	2.0	13
75	Distributed Consensus Tracking Control of Chaotic Multi-Agent Supply Chain Network: A New Fault-Tolerant, Finite-Time, and Chatter-Free Approach. Entropy, 2022, 24, 33.	1.1	13
76	Design of a Network Permutation Entropy and Its Applications for Chaotic Time Series and EEG Signals. Entropy, 2019, 21, 849.	1.1	12
77	Dynamics of the Fractional-Order Lorenz System Based on Adomian Decomposition Method and Its DSP Implementation. IEEE/CAA Journal of Automatica Sinica, 2024, 11, 1298-1300.	8.5	11
78	A study on dynamical complexity of noise induced blood flow. European Physical Journal: Special Topics, 2019, 228, 2769-2777.	1.2	11
79	Complexity and Chimera States in a Network of Fractional-Order Laser Systems. Symmetry, 2021, 13, 341.	1.1	11
80	Self-reproducing dynamics in a two-dimensional discrete map. European Physical Journal: Special Topics, 2021, 230, 1959-1970.	1.2	11
81	Design and dynamics of the multicavity hyperchaotic map based on offset boosting. European Physical Journal Plus, 2022, 137, 1.	1.2	11
82	Complex Dynamics of the Fractional-Order Rössler System and Its Tracking Synchronization Control. Complexity, 2018, 2018, 1-13.	0.9	10
83	Dynamics and complexity analysis of the conformable fractional-order two-machine interconnected power system. Mathematical Methods in the Applied Sciences, 2021, 44, 2439-2454.	1.2	10
84	A hyperchaotic cycloid map with attractor topology sensitive to system parameters. Chaos, 2021, 31, 083132.	1.0	10
85	Dynamics of a fractional-order Colpitts oscillator and its FPGA implementation. European Physical Journal: Special Topics, 2022, 231, 2467-2476.	1.2	10
86	Size matters: Effects of the size of heterogeneity on the wave re-entry and spiral wave formation in an excitable media. Chaos, 2021, 31, 053131.	1.0	9
87	A discrete Huber-Braun neuron model: from nodal properties to network performance. Cognitive Neurodynamics, 2023, 17, 301-310.	2.3	9
88	Novel dynamical behaviors in fractional-order conservative hyperchaotic system and DSP implementation. Nonlinear Dynamics, 2022, 109, 1167-1186.	2.7	9
89	Multistability and chaos in a noise-induced blood flow. European Physical Journal: Special Topics, 2021, 230, 1525-1533.	1.2	8
90	From Memristor-Modeled Jerk System to the Nonlinear Systems with Memristor. Symmetry, 2022, 14, 659.	1.1	8

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91	Complexity and Multistability in the Centrifugal Flywheel Governor System With Stochastic Noise. IEEE Access, 2020, 8, 30092-30103.	2.6	7
92	Spiral waves in a hybrid discrete excitable media with electromagnetic flux coupling. Chaos, 2021, 31, 113132.	1.0	6
93	Localization of Hidden Attractors in Chua's System With Absolute Nonlinearity and Its FPGA Implementation. Frontiers in Physics, 2021, 9, .	1.0	6
94	Multifractal based image processing for estimating the complexity of COVID-19 dynamics. European Physical Journal: Special Topics, 2021, , 1-8.	1.2	5
95	Multistability in a Fractional-Order Centrifugal Flywheel Governor System and Its Adaptive Control. Complexity, 2020, 2020, 1-11.	0.9	4
96	Analogue circuit implementation of a new logistic-like map. Electronics Letters, 0, , .	0.5	4
97	Firing patterns of Izhikevich neuron model under electric field and its synchronization patterns. European Physical Journal: Special Topics, 2022, 231, 4017-4023.	1.2	4
98	A fully integrated chaos generator based on voltage controlled oscillator. Microelectronics Journal, 2022, 126, 105514.	1.1	4
99	Simplest symmetric chaotic flows: the strange case of asymmetry in Master Stability Function. European Physical Journal: Special Topics, 2021, 230, 1999-2010.	1.2	3
100	A Modified Multivariable Complexity Measure Algorithm and Its Application for Identifying Mental Arithmetic Task. Entropy, 2021, 23, 931.	1.1	3
101	DESIGN OF N-DIMENSIONAL MULTI-SCROLL JERK CHAOTIC SYSTEM AND ITS PERFORMANCES. Journal of Applied Analysis and Computation, 2016, 6, 1180-1194.	0.2	3
102	Obstacle induced spiral waves in a multilayered Huber-Braun (HB) neuron model. Cognitive Neurodynamics, 2023, 17, 277-291.	2.3	3
103	Multifractal analysis on age-based discrimination in X-ray images for sensing the severity of COVID-19 disease. European Physical Journal: Special Topics, 2022, 231, 3663-3671.	1.2	3
104	Complex Dynamics and Hard Limiter Control of a Fractional-Order Buck-Boost System. Mathematical Problems in Engineering, 2021, 2021, 1-16.	0.6	0
105	Dynamics and Synchronization of the Fractional-Order Hyperchaotic System. Advances in Computer and Electrical Engineering Book Series, 2018, , 23-53.	0.2	0