S Behnia

List of Publications by Year in descending order

97 papers	1,571 citations	430874 18 h-index	315739 38 g-index
99 all docs	99 docs citations	99 times ranked	859 citing authors

#	Article	IF	Citations
1	Construction of S-box based on chaotic piecewise map: Watermark application. Multimedia Tools and Applications, 2023, 82, 1131-1148.	3.9	2
2	Creation of S-box based on a hierarchy of Julia sets: image encryption approach. Multidimensional Systems and Signal Processing, 2022, 33, 39-62.	2.6	8
3	Random number generator via hexagonal boron nitride heterostructure. Physica Scripta, 2022, 97, 035003.	2.5	1
4	Structural stability of electrical current in graphene-hexagonal boron nitride heterostructures: a quantum chaos approach. European Physical Journal Plus, 2022, 137, 1.	2.6	0
5	Molecular spin switch triggered by voltage and magnetic field: towards DNA-based molecular devices. Physica Scripta, 2022, 97, 055005.	2.5	5
6	Chaotic control of the dynamical behavior of COVID-19 through the electromagnetic fields. Physica Scripta, 2022, 97, 085008.	2.5	2
7	Bio-inspired Green Power: A Thermocurrent Generator. Transactions on Electrical and Electronic Materials, 2021, 22, 257-266.	1.9	0
8	Presence of dynamics of quantum dots in the digital signature using DNA alphabet and chaotic S-box. Multimedia Tools and Applications, 2021, 80, 10509-10531.	3.9	5
9	Quantum chaos approach in exciton energy transfer in a photosynthetic system. Physica Scripta, 2021, 96, 025203.	2.5	2
10	Light-Driven Modulation of Electrical Current through DNA Sequences: Engineering of a Molecular Optical Switch. Journal of Physical Chemistry B, 2020, 124, 3261-3270.	2.6	9
11	Numerical study on a polymer-shelled microbubble submerged in soft tissue. Physica Scripta, 2020, 95, 085215.	2.5	3
12	A quantum chaos study on the localization of light in a resonator-based photonic crystal. Optical and Quantum Electronics, 2020, 52, 1.	3.3	0
13	Control of a DNA Based Piezoelectric Biosensor. Journal of the Physical Society of Japan, 2020, 89, 024004.	1.6	14
14	Organic thermoelectricity based on DNA molecules. Physica Scripta, 2020, 95, 065004.	2.5	1
15	Study the metal-insulator transitions of bilayer graphene: Abelian group schemes approach. Superlattices and Microstructures, 2020, 142, 106498.	3.1	0
16	Dynamical stabilities of photosynthesis systems: Quantum chaos approach. Chaos, Solitons and Fractals, 2020, 139, 110279.	5.1	2
17	Modulating the Light-Driven Conductivity in Biosystem. Springer Proceedings in Complexity, 2020, , 75-84.	0.3	0
18	Multifractal spectrum and spectral behavior of calcium and titanium isotopes based on nuclear shell model. Chinese Physics C, 2019, 43, 114108.	3.7	0

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19	Shell closure effects on spectral statistics of calcium neutron-rich isotopes. Chinese Journal of Physics, 2019, 58, 29-37.	3.9	1
20	Digital Signature: Quantum Chaos Approach and Bell States. Springer Proceedings in Complexity, 2019, , 85-93.	0.3	3
21	Controlling of the light in photonic resonator lattice: Quantum chaos approach. Optics Communications, 2019, 446, 171-177.	2.1	2
22	Study of encapsulated microbubble cluster based on association schemes perspective. Ultrasonics Sonochemistry, 2019, 52, 131-141.	8.2	3
23	Engineering DNA Molecule Bridge between Metal Electrodes for High-Performance Molecular Transistor: An Environmental Dependent Approach. Journal of Physical Chemistry B, 2018, 122, 2487-2494.	2.6	15
24	Quantum chaos analysis for characterizing a photonic resonator lattice. Chaos, Solitons and Fractals, 2018, 109, 154-159.	5.1	2
25	Association schemes perspective of microbubble cluster in ultrasonic fields. Ultrasonics Sonochemistry, 2018, 44, 45-52.	8.2	3
26	Detecting a pronounced delocalized state in third-harmonic generation phenomenon; a quantum chaos approach. Optics Communications, 2018, 416, 19-24.	2.1	3
27	Molecular thermal transistor: Dimension analysis and mechanism. Chemical Physics, 2018, 505, 40-46.	1.9	8
28	Modulation of spin transport in DNA-based nanodevices by temperature gradient: A spin caloritronics approach. Chaos, Solitons and Fractals, 2018, 116, 8-13.	5.1	4
29	Quantum Chaotic Behavior in Zigzag Graphene Nanoribbon: Effect of Impurity and Electric Field. Journal of the Physical Society of Japan, 2018, 87, 114602.	1.6	8
30	Effect of electric field on the electrical conductivity of defected carbon nanotube: Multifractal properties of the wavefunctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 3274-3280.	2.1	7
31	Designing thermal diode and heat pump based on DNA nanowire: Multifractal approach. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2077-2084.	2.1	7
32	An electric field induced delocalization transition in second-harmonic generation effect. Optical and Quantum Electronics, 2017, 49, 1.	3.3	5
33	Metal-insulator transition in a disordered nanotube. Chaos, Solitons and Fractals, 2017, 99, 101-108.	5.1	4
34	Disorder-driven insulator to semi-metallic transition in a graphene nanoribbon. Physica B: Condensed Matter, 2017, 522, 22-25.	2.7	0
35	Watermarking based on discrete wavelet transform and q -deformed chaotic map. Chaos, Solitons and Fractals, 2017, 104, 6-17.	5.1	20
36	Dynamics of Charge Transfer in DNA Wires: A Protonâ€“Coupled Approach. Journal of the Physical Society of Japan, 2017, 86, 124006.	1.6	2

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37	Manifestation of quantum chaos in second-harmonic generation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2882-2886.	2.1	2
38	Controlling charge current through a DNA based molecular transistor. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 36-43.	2.1	14
39	Spintronics in Nano scales: An approach from DNA spin polarization. Scientia Iranica, 2017, .	0.4	0
40	Ballistic induced pumping of hypersonic heat current in DNA nano wire. European Physical Journal B, 2016, 89, 1.	1.5	2
41	Modeling spin selectivity in charge transfer across the DNA/Gold interface. Chemical Physics, 2016, 477, 61-73.	1.9	11
42	Influence of Stacking Sequence and Notch Angle on the Charpy Impact Behavior of Hybrid Composites. Mechanics of Composite Materials, 2016, 52, 489-496.	1.4	22
43	DNA Spintronics: Charge and Spin Dynamics in DNA Wires. Journal of Physical Chemistry C, 2016, 120, 2973-2983.	3.1	27
44	Analyzing stability of neutron point kinetics equations with nine photo-neutron groups using Lyapunov exponent method. Iranian Journal of Physics Research, 2016, 16, 33-40.	0.0	1
45	Modeling the electrical conduction in DNA nanowires: Charge transfer and lattice fluctuation theories. Physical Review E, 2015, 91, 022719.	2.1	15
46	DNA in a Dissipative Environment: A Charge Transfer Approach. Journal of the Physical Society of Japan, 2015, 84, 084002.	1.6	3
47	Effect of magnetic field on the radial pulsations of a gas bubble in a non-Newtonian fluid. Chaos, Solitons and Fractals, 2015, 78, 194-204.	5.1	6
48	Generalization of the analytical solution of neutron point kinetics equations with time-dependent external source. Iranian Physical Journal, 2014, 8, 211-218.	1.2	2
49	Intelligent controlling microbubble radial oscillations by using Slaveâ€“Master Feedback control. Applied Mathematics and Computation, 2014, 245, 404-415.	2.2	4
50	Design and implementation of coupled chaotic maps in watermarking. Applied Soft Computing Journal, 2014, 21, 481-490.	7.2	12
51	Reconfigurable chaotic logic gates based on novel chaotic circuit. Chaos, Solitons and Fractals, 2014, 69, 74-80.	5.1	10
52	A Chaotic Blind Digital Image Watermarking Based On Singular Value Decomposition In Spatial Domain. Journal of Mathematics and Computer Science, 2014, 13, 311-320.	1.0	0
53	Observations on the dynamics of bubble cluster in an ultrasonic field. Nonlinear Dynamics, 2013, 72, 561-574.	5.2	18
54	Chaotic behavior of gas bubble in non-Newtonian fluid: a numerical study. Nonlinear Dynamics, 2013, 74, 559-570.	5.2	16

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55	Image encryption based on the Jacobian elliptic maps. Journal of Systems and Software, 2013, 86, 2429-2438.	4.5	37
56	A new colour image watermarking scheme using Cellular Automata Transform and Schur decomposition. , 2013, , .		4
57	A new approach to the study of heartbeat dynamics based on mathematical model. , 2013, , .		4
58	A novel method for controlling chaos in external cavity semiconductor laser. Optik, 2013, 124, 757-764.	2.9	18
59	Controlling Chaos in Damped and Driven Morse Oscillator via Slave-Master Feedback. Acta Physica Polonica A, 2013, 123, 7.	0.5	3
60	Characterization of Intermittency in Hierarchy of Chaotic Maps with Invariant Measure. Journal of the Physical Society of Japan, 2012, 81, 124008.	1.6	5
61	Multifractal properties of denaturation process based on Peyrardâ€“Bishop model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2538-2547.	2.1	15
62	Image encryption based on quantum chaotic map and FSM transforms. , 2012, , .		5
63	Criticality calculations in a nuclear reactor by using the Lyapunov exponent method. Annals of Nuclear Energy, 2012, 43, 131-135.	1.8	0
64	Observations on the dynamics of external cavity semiconductor lasers. Optik, 2012, 123, 1555-1561.	2.9	6
65	Multifractal analysis of thermal denaturation based on the Peyrard-Bishop-Dauxois model. Physical Review E, 2011, 84, 031918.	2.1	13
66	Mean Lyapunov exponent approach for the helicoidal Peyrardâ€“Bishop model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3574-3578.	2.1	7
67	Slaveâ€“master dynamics of semiconductor laser with short external cavity. Optics Communications, 2011, 284, 3018-3029.	2.1	17
68	A novel approach for the potential parameters selection of Peyrardâ€“Bishop model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 1092-1096.	2.1	5
69	A novel dynamic model of pseudo random number generator. Journal of Computational and Applied Mathematics, 2011, 235, 3455-3463.	2.0	30
70	Multiple-watermarking scheme based on improved chaotic maps. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 2469-2478.	3.3	31
71	A novel scheme for image encryption based on 2D piecewise chaotic maps. Optics Communications, 2010, 283, 3259-3266.	2.1	127
72	PSEUDO RANDOM NUMBER GENERATOR BASED ON SYNCHRONIZED CHAOTIC MAPS. International Journal of Modern Physics C, 2010, 21, 275-290.	1.7	12

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73	A NOVEL SCHEME FOR IMAGE ENCRYPTION BASED ON A SYNCHRONIZED COUPLED MAP. International Journal of Modern Physics B, 2010, 24, 5635-5651.	2.0	2
74	Random Maps with Parameter-Dependent Probabilities. Journal of the Physical Society of Japan, 2010, 79, 124002.	1.6	0
75	Hash function based on hierarchy of 2D piecewise nonlinear chaotic maps. Chaos, Solitons and Fractals, 2009, 42, 2405-2412.	5.1	31
76	Towards classification of the bifurcation structure of a spherical cavitation bubble. Ultrasonics, 2009, 49, 605-610.	3.9	32
77	Suppressing chaotic oscillations of a spherical cavitation bubble through applying a periodic perturbation. Ultrasonics Sonochemistry, 2009, 16, 502-511.	8.2	43
78	Cryptography based on chaotic random maps with position dependent weighting probabilities. Chaos, Solitons and Fractals, 2009, 40, 362-369.	5.1	10
79	Applications of tripled chaotic maps in cryptography. Chaos, Solitons and Fractals, 2009, 40, 505-519.	5.1	34
80	Nonlinear transitions of a spherical cavitation bubble. Chaos, Solitons and Fractals, 2009, 41, 818-828.	5.1	42
81	Dynamical control of chaos by slaveâ€“master feedback. Chaos, Solitons and Fractals, 2009, 42, 2105-2114.	5.1	4
82	Synchronization in pair-coupled maps with invariant measure. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 2916-2922.	3.3	3
83	Global Synchronization & Anti-Synchronization inÂN-Coupled Map Lattices. International Journal of Theoretical Physics, 2008, 47, 1005-1015.	1.2	2
84	Generalized N-coupled maps with invariant measure in Bose-Mesner algebra perspective. Pramana - Journal of Physics, 2008, 70, 417-438.	1.8	4
85	A novel algorithm for image encryption based on mixture of chaotic maps. Chaos, Solitons and Fractals, 2008, 35, 408-419.	5.1	349
86	Stability analysis in nuclear reactor using Lyapunov exponent. Annals of Nuclear Energy, 2008, 35, 1370-1372.	1.8	7
87	Finite-element simulation of ultrasound brain surgery: effects of frequency, focal pressure, and scanning path in bone-heating reduction. Open Physics, 2008, 6, .	1.7	8
88	CHAOTIC CRYPTOGRAPHIC SCHEME BASED ON COMPOSITION MAPS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 251-261.	1.7	28
89	Industrialising a proof-based verification approach of computerised interlocking systems. WIT Transactions on the Built Environment, 2008, , .	0.0	2
90	A Novel Moment Approach for Calculation of the Perronâ€“Frobenius Spectrum. International Journal of Theoretical Physics, 2007, 46, 2836-2842.	1.2	1

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91	A fast chaotic encryption scheme based on piecewise nonlinear chaotic maps. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 366, 391-396.	2.1	200
92	Hierarchy of piecewise non-linear maps with non-ergodic behaviour. Journal of Physics A, 2004, 37, 9403-9417.	1.6	4
93	Hierarchy of one- and many-parameter families of elliptic chaotic maps of cn and sn types. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 310, 168-176.	2.1	11
94	Hierarchy of random chaotic maps with an invariant measure. Journal of Mathematical Physics, 2003, 44, 5386-5400.	1.1	5
95	Hierarchy of Chaotic Maps with an Invariant Measure and their Compositions. Journal of Nonlinear Mathematical Physics, 2002, 9, 26.	1.3	17
96	Hierarchy of chaotic maps with an invariant measure and their coupling. Physica D: Nonlinear Phenomena, 2001, 159, 1-21.	2.8	27
97	Hierarchy of Chaotic Maps with an Invariant Measure. Journal of Statistical Physics, 2001, 104, 1013-1028.	1.2	48