

Paul Woaf

List of Publications by Year in descending order

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95
papers

1,385
citations

361413

20
h-index

395702

33
g-index

95
all docs

95
docs citations

95
times ranked

804
citing authors

#	ARTICLE	IF	CITATIONS
1	Metallic Iron Filters for Universal Access to Safe Drinking Water. <i>Clean - Soil, Air, Water</i> , 2009, 37, 930-937.	1.1	85
2	Chaotic synchronization with experimental application to secure communications. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2009, 14, 2266-2276.	3.3	78
3	Three-Dimensional Chaotic Autonomous System with a Circular Equilibrium: Analysis, Circuit Implementation and Its Fractional-Order Form. <i>Circuits, Systems, and Signal Processing</i> , 2016, 35, 1933-1948.	2.0	75
4	Bursting oscillations in electromechanical systems. <i>Mechanics Research Communications</i> , 2011, 38, 537-541.	1.8	72
5	Hartley's oscillator: The simplest chaotic two-component circuit. <i>Chaos, Solitons and Fractals</i> , 2012, 45, 306-313.	5.1	59
6	A chaotic system with an infinite number of equilibrium points located on a line and on a hyperbola and its fractional-order form. <i>Chaos, Solitons and Fractals</i> , 2017, 99, 209-218.	5.1	56
7	Dissipative chaos, Shilnikov chaos and bursting oscillations in a three-dimensional autonomous system: theory and electronic implementation. <i>Nonlinear Dynamics</i> , 2013, 73, 1111-1123.	5.2	55
8	Dynamics, chaos and synchronization of self-sustained electromechanical systems with clamped-free flexible arm. <i>Nonlinear Dynamics</i> , 2008, 53, 201-213.	5.2	47
9	Mixed-mode oscillations in slow-fast delayed optoelectronic systems. <i>Physical Review E</i> , 2015, 91, 012902.	2.1	47
10	Extending Service Life of Household Water Filters by Mixing Metallic Iron with Sand. <i>Clean - Soil, Air, Water</i> , 2010, 38, 951-959.	1.1	45
11	Active control with delay of vibration and chaos in a double-well Duffing oscillator. <i>Chaos, Solitons and Fractals</i> , 2003, 18, 345-353.	5.1	41
12	Chaos in a new bistable rotating electromechanical system. <i>Chaos, Solitons and Fractals</i> , 2016, 93, 48-57.	5.1	33
13	Dynamics of coupled simplest chaotic two-component electronic circuits and its potential application to random bit generation. <i>Chaos</i> , 2013, 23, 043122.	2.5	32
14	Analysis of Phase-Locking in Narrow-Band Optoelectronic Oscillators With Intermediate Frequency. <i>IEEE Journal of Quantum Electronics</i> , 2015, 51, 1-8.	1.9	28
15	Experimental observation of bursting patterns in Van der Pol oscillators. <i>Chaos, Solitons and Fractals</i> , 2017, 94, 95-101.	5.1	28
16	Analysis of a No Equilibrium Linear Resistive-Capacitive-Inductance Shunted Junction Model, Dynamics, Synchronization, and Application to Digital Cryptography in Its Fractional-Order Form. <i>Complexity</i> , 2017, 2017, 1-12.	1.6	26
17	Constructing and analyzing of a unique three-dimensional chaotic autonomous system exhibiting three families of hidden attractors. <i>Mathematics and Computers in Simulation</i> , 2017, 132, 172-182.	4.4	25
18	Theoretical and experimental study of slow-scale Hopf limit-cycles in laser-based wideband optoelectronic oscillators. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 2310.	2.1	22

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19	The Simplest Laser-Based Optoelectronic Oscillator: An Experimental and Theoretical Study. <i>Journal of Lightwave Technology</i> , 2016, 34, 873-878.	4.6	22
20	Effects of springs on a pendulum electromechanical energy harvester. <i>Theoretical and Applied Mechanics Letters</i> , 2014, 4, 063001.	2.8	20
21	Analysis of an electromechanical energy harvester system with geometric and ferroresonant nonlinearities. <i>Nonlinear Dynamics</i> , 2014, 76, 1561-1568.	5.2	20
22	Subharmonic and bursting oscillations of a ferromagnetic mass fixed on a spring and subjected to an AC electromagnet. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 3082-3091.	3.3	19
23	Semiconductor lasers driven by self-sustained chaotic electronic oscillators and applications to optical chaos cryptography. <i>Chaos</i> , 2012, 22, 033108.	2.5	18
24	Breather and Pulse-Package Dynamics in Multinonlinear Electrooptical Systems With Delayed Feedback. <i>IEEE Photonics Journal</i> , 2016, 8, 1-8.	2.0	18
25	Dynamics of three unidirectionally coupled autonomous Duffing oscillators and application to inchworm piezoelectric motors: Effects of the coupling coefficient and delay. <i>Chaos</i> , 2016, 26, 113108.	2.5	17
26	Dynamics of Optoelectronic Oscillators With Electronic and Laser Nonlinearities. <i>IEEE Journal of Quantum Electronics</i> , 2018, 54, 1-7.	1.9	16
27	Dynamics, Circuitry Implementation and Control of an Autonomous Helmholtz Jerk Oscillator. <i>Journal of Control, Automation and Electrical Systems</i> , 2019, 30, 501-511.	2.0	16
28	Bursting generation mechanism in a three-dimensional autonomous system, chaos control, and synchronization in its fractional-order form. <i>Nonlinear Dynamics</i> , 2014, 76, 1169-1183.	5.2	15
29	Suppression of the noise-induced effects in an electrostatic micro-plate using an adaptive back-stepping sliding mode control. <i>ISA Transactions</i> , 2018, 72, 100-109.	5.7	15
30	Electrical dark compacton generator: Theory and simulations. <i>Physical Review E</i> , 2012, 85, 056606.	2.1	14
31	Bursting oscillations in Colpitts oscillator and application in optoelectronics for the generation of complex optical signals. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	3.3	14
32	A hybrid numerical method and its application to inviscid compressible flow problems. <i>Computer Physics Communications</i> , 2014, 185, 479-488.	7.5	13
33	Bifurcation structures in three unidirectionally coupled electromechanical systems with no external signal and with regenerative process. <i>Nonlinear Dynamics</i> , 2016, 84, 1961-1972.	5.2	13
34	Coherence and stochastic resonance in a birhythmic van der Pol system. <i>European Physical Journal B</i> , 2017, 90, 1.	1.5	13
35	Disturbance and repair of solitary waves in blood vessels with aneurysm. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2009, 14, 51-60.	3.3	12
36	A novel high-frequency interpretation of a general purpose Op-Amp-based negative resistance for chaotic vibrations in a simple a priori nonchaotic circuit. <i>JVC/Journal of Vibration and Control</i> , 2017, 23, 744-751.	2.6	12

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37	Robustness of continuous-variable entanglement via geometrical nonlinearity. <i>Physical Review A</i> , 2014, 90, .	2.5	11
38	Transmission of light through an optical filter of a one-dimensional photonic crystal: application to the solar thermophotovoltaic system. <i>Physica B: Condensed Matter</i> , 2017, 516, 92-99.	2.7	11
39	Quasi-static transient and mixed mode oscillations induced by fractional derivatives effect on the slow flow near folded singularity. <i>Nonlinear Dynamics</i> , 2014, 78, 2717-2729.	5.2	10
40	Dynamics of Wideband Time-Delayed Optoelectronic Oscillators With Nonlinear Filters. <i>IEEE Journal of Quantum Electronics</i> , 2019, 55, 1-6.	1.9	10
41	Theoretical investigation of a semiconductor ring laser driven by Chua's oscillator. <i>Journal of Modern Optics</i> , 2013, 60, 869-879.	1.3	9
42	Modulation of distributed feedback (DFB) laser diode with the autonomous Chua's circuit: Theory and experiment. <i>Optics and Laser Technology</i> , 2018, 100, 145-152.	4.6	9
43	Dynamics of a cantilever arm actuated by a nonlinear electrical circuit. <i>Nonlinear Dynamics</i> , 2011, 63, 807-818.	5.2	8
44	Quantum Associative Memory with Improved Distributed Queries. <i>International Journal of Theoretical Physics</i> , 2013, 52, 1787-1801.	1.2	8
45	Power grid enhanced resilience using proportional and derivative control with delayed feedback. <i>European Physical Journal B</i> , 2017, 90, 1.	1.5	8
46	A normal form method for the determination of oscillations characteristics near the primary Hopf bifurcation in bandpass optoelectronic oscillators: Theory and experiment. <i>Chaos</i> , 2019, 29, 033104.	2.5	8
47	Routes to chaos and characterization of limit-cycle oscillations in wideband time-delayed optoelectronic oscillators with nonlinear filters. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, A75.	2.1	8
48	The complete synchronization condition in a network of piezoelectric micro-beams. <i>Nonlinear Dynamics</i> , 2009, 57, 261-274.	5.2	7
49	Classical and semiclassical studies of nonlinear nano-optomechanical oscillators. <i>European Physical Journal D</i> , 2013, 67, 1.	1.3	7
50	Experimental Assessment of a Smart Sun Tracking System Consumption for the Improvement of a Crystalline Silicon Photovoltaic Module Performance under Variable Weather Conditions. <i>Applied Solar Energy (English Translation of Geliotekhnika)</i> , 2019, 55, 385-396.	1.6	7
51	Design, Experimental Implementation and Performance Comparison of Two Solar Tracking Approaches. <i>Applied Solar Energy (English Translation of Geliotekhnika)</i> , 2021, 57, 44-58.	1.6	7
52	Dynamics of Solitary Waves Through Taper-Thin Elastic Tube with Localized Deformation. <i>Physica Scripta</i> , 2004, 69, 249-256.	2.5	6
53	Synchronization of simplest two-component Hartley's chaotic circuits: influence of channel. <i>Nonlinear Dynamics</i> , 2013, 74, 1065-1075.	5.2	6
54	Study of a piezoelectric plate based self-sustained electric and electromechanical oscillator. <i>Mechanics Research Communications</i> , 2020, 105, 103504.	1.8	6

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55	Dynamics of Time-Delayed Optoelectronic Oscillators With Nonlinear Amplifiers and Its Potential Application to Random Numbers Generation. <i>IEEE Journal of Quantum Electronics</i> , 2021, 57, 1-7.	1.9	6
56	Diverse chimera and symmetry-breaking patterns induced by fractional derivation effect in a network of Stuart-Landau oscillators. <i>Chaos, Solitons and Fractals</i> , 2022, 157, 111945.	5.1	6
57	An extension of AUFSSR scheme for the ideal magnetohydrodynamics equations. <i>Computers and Fluids</i> , 2015, 114, 297-313.	2.5	5
58	Edge-emitting semiconductor laser subject to nonsinusoidal excitation from three-dimensional autonomous system: numerical and electronic models analysis. <i>Optical and Quantum Electronics</i> , 2015, 47, 3405-3417.	3.3	5
59	DYNAMICS OF THE TRANSITION TO PATHOGENICITY IN <i>ERWINIA CHRYSANTHEMI</i> . <i>Journal of Biological Systems</i> , 2010, 18, 173-203.	1.4	4
60	Exact solutions for a system of two coupled discrete nonlinear Schrödinger equations with a saturable nonlinearity. <i>Applied Mathematics and Computation</i> , 2013, 219, 5956-5962.	2.2	4
61	Effects of asymmetry, transmission delay and noises on the stability of an elementary electricity network. <i>European Physical Journal B</i> , 2015, 88, 1.	1.5	4
62	Analysis of an electrostatic energy harvester with variable area, permittivity and radius. <i>European Physical Journal B</i> , 2016, 89, 1.	1.5	4
63	Signal bi-amplification in networks of unidirectionally coupled MEMS. <i>European Physical Journal B</i> , 2016, 89, 1.	1.5	4
64	An Electromechanical Pendulum Robot Arm in Action: Dynamics and Control. <i>Shock and Vibration</i> , 2017, 2017, 1-13.	0.6	4
65	Nonlinear analysis of electrostatic micro-electro-mechanical systems resonators subject to delayed proportional-derivative controller. <i>JVC/Journal of Vibration and Control</i> , 2021, 27, 220-233.	2.6	4
66	Experimental direct modulation of a laser diode with a van der Pol circuit and applications. <i>Optical Engineering</i> , 2019, 58, 1.	1.0	4
67	Electronic simulation and microcontroller real implementation of an autonomous chaotic and hyperchaotic system made of a Colpitts-Josephson junction like circuit. <i>Analog Integrated Circuits and Signal Processing</i> , 2022, 110, 395-407.	1.4	4
68	Dynamics of optoelectronic oscillators with band-pass filter and laser nonlinearities: theory and experiment. <i>Optical and Quantum Electronics</i> , 2022, 54, 1.	3.3	4
69	A mathematical model for wave propagation in elastic tubes with inhomogeneities: Application to blood waves propagation. <i>Physica D: Nonlinear Phenomena</i> , 2007, 236, 131-140.	2.8	3
70	Noise induced intercellular propagation of calcium waves. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 2519-2525.	2.6	3
71	Electronic model for VCSELs: Switching mode, control of threshold current and saturation. <i>Optics Communications</i> , 2009, 282, 4390-4396.	2.1	3
72	Experimental Synchronization of Two Van der Pol Oscillators with Nonlinear and Delayed Unidirectional Coupling. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2017, 18, 515-523.	1.0	3

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73	An inverted pendulum with multibranching view as self-controlled system: Modelling and vibration absorber capacity. <i>JVC/Journal of Vibration and Control</i> , 2020, 26, 1848-1858.	2.6	3
74	Dynamics of solitary waves over an erodible surface. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 345, 9-16.	2.6	2
75	The design of a reflectionless arterial prosthesis. <i>Journal of Biological Physics</i> , 2011, 37, 51-60.	1.5	2
76	Rogue waves in Lugiato-Lefever equation with variable coefficients. <i>Open Physics</i> , 2014, 12, .	1.7	2
77	Role of disorder on the signal amplification in an array of unidirectionally coupled MEMS. <i>European Physical Journal B</i> , 2019, 92, 1.	1.5	2
78	Long-range interaction effects on coupled excitable nodes: traveling waves and chimera state. <i>Heliyon</i> , 2021, 7, e07026.	3.2	2
79	Signal transmission in a chain of unidirectionally coupled self-sustained Van der Pol oscillators: effect of additional nonlinearities and noisy chain units. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	2
80	Numerical Simulation of Topological Solitons Dynamics in Coupled Sine-Gordon Chains and Interaction with Localized Impurities. <i>Journal of the Physical Society of Japan</i> , 1998, 67, 3734-3741.	1.6	1
81	Waves Amplification in Discrete Nonlinear Electrical Lines: Direct Numerical Simulation. <i>Journal of the Physical Society of Japan</i> , 2008, 77, 124006.	1.6	1
82	Variability and trends of local/regional scale surface climate in northern Africa during the twentieth century. <i>Theoretical and Applied Climatology</i> , 2014, 117, 625-641.	2.8	1
83	Response of a resonant tunnelling diode optoelectronic oscillator coupled to a non-linear electrical circuit. <i>IET Optoelectronics</i> , 2016, 10, 205-210.	3.3	1
84	Behavior of a new electronic circuit mimicking the edge-emitting semiconductor laser. <i>Optik</i> , 2016, 127, 3430-3434.	2.9	1
85	Voltages responses and synchronization of an array of Grudzinski and Zebrowski oscillators coupled to an electrical load. <i>Chaos, Solitons and Fractals</i> , 2021, 146, 110848.	5.1	1
86	Microcontroller-based simulation of a nonlinear resistive-capacitive-inductance shunted Josephson junction model and applications in electromechanical engineering. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2021, .	1.0	1
87	Dynamics of Vertical-Cavity Surface-Emitting lasers under AM and FM current modulations. <i>Physica Scripta</i> , 0, , .	2.5	1
88	Energy Harvesting from a Micro-System with Circular Bistable Potential Due to Magnets. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2022, 32, .	1.7	1
89	Power emitted by an array of ultra high frequency current modulated semiconductor lasers with global coupling. <i>Optics Communications</i> , 2008, 281, 5377-5381.	2.1	0
90	Analytical, Numerical and Experimental Analysis of an RC Autonomous Circuit With Diodes in Antiparallel. , 2019, , 23-39.		0

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91	Negative and Complex Reluctance in Injective Profile Section. IEEE Magnetics Letters, 2020, 11, 1-5.	1.1	0
92	Study of the effect of the offset phase in time-delay electro-optical systems. Chaos, 2020, 30, 093130.	2.5	0
93	NUMERICAL SIMULATION OF AN ELECTRODYNAMIC TRANSDUCER CONTROL OF INSULIN PROVISION IN THE BERGMAN'S AND THE CHENG'S MODELS FOR THE DYNAMICS OF THE COUPLE GLUCOSE-INSULIN IN DIABETICS. Journal of Mechanics in Medicine and Biology, 2020, 20, 2050055.	0.7	0
94	Adaptive controllers for a piezoelectric actuator without and with discontinuity. International Journal of Mechatronics and Automation, 2017, 6, 29.	0.2	0
95	Secondary frequency control stabilising voltage dynamics. European Journal of Applied Mathematics, 0, , 1-17.	2.9	0