

# 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	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
2	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
3	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
4	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
5	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
6	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
7	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
8	Long-range interaction effects on coupled excitable nodes: traveling waves and chimera state. <i>Heliyon</i> , 2021, 7, e07026.	3.2	2
9	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
10	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
11	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
12	Negative and Complex Reluctance in Injective Profile Section. <i>IEEE Magnetics Letters</i> , 2020, 11, 1-5.	1.1	0
13	Study of the effect of the offset phase in time-delay electro-optical systems. <i>Chaos</i> , 2020, 30, 093130.	2.5	0
14	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. <i>Journal of Mechanics in Medicine and Biology</i> , 2020, 20, 2050055.	0.7	0
15	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
16	Study of a piezoelectric plate based self-sustained electric and electromechanical oscillator. <i>Mechanics Research Communications</i> , 2020, 105, 103504.	1.8	6
17	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
18	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

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19	Dynamics of Wideband Time-Delayed Optoelectronic Oscillators With Nonlinear Filters. IEEE Journal of Quantum Electronics, 2019, 55, 1-6.	1.9	10
20	Dynamics, Circuitry Implementation and Control of an Autonomous Helmholtz Jerk Oscillator. Journal of Control, Automation and Electrical Systems, 2019, 30, 501-511.	2.0	16
21	Analytical, Numerical and Experimental Analysis of an RC Autonomous Circuit With Diodes in Antiparallel. , 2019, , 23-39.		0
22	A normal form method for the determination of oscillations characteristics near the primary Hopf bifurcation in bandpass optoelectronic oscillators: Theory and experiment. Chaos, 2019, 29, 033104.	2.5	8
23	Role of disorder on the signal amplification in an array of unidirectionally coupled MEMS. European Physical Journal B, 2019, 92, 1.	1.5	2
24	Experimental Assessment of a Smart Sun Tracking System Consumption for the Improvement of a Crystalline Silicon Photovoltaic Module Performance under Variable Weather Conditions. Applied Solar Energy (English Translation of Geliotekhnika), 2019, 55, 385-396.	1.6	7
25	Experimental direct modulation of a laser diode with a van der Pol circuit and applications. Optical Engineering, 2019, 58, 1.	1.0	4
26	Dynamics of Optoelectronic Oscillators With Electronic and Laser Nonlinearities. IEEE Journal of Quantum Electronics, 2018, 54, 1-7.	1.9	16
27	Suppression of the noise-induced effects in an electrostatic micro-plate using an adaptive back-stepping sliding mode control. ISA Transactions, 2018, 72, 100-109.	5.7	15
28	Modulation of distributed feedback (DFB) laser diode with the autonomous Chua's circuit: Theory and experiment. Optics and Laser Technology, 2018, 100, 145-152.	4.6	9
29	A novel high-frequency interpretation of a general purpose Op-Amp-based negative resistance for chaotic vibrations in a simple a priori nonchaotic circuit. JVC/Journal of Vibration and Control, 2017, 23, 744-751.	2.6	12
30	Power grid enhanced resilience using proportional and derivative control with delayed feedback. European Physical Journal B, 2017, 90, 1.	1.5	8
31	A chaotic system with an infinite number of equilibrium points located on a line and on a hyperbola and its fractional-order form. Chaos, Solitons and Fractals, 2017, 99, 209-218.	5.1	56
32	Transmission of light through an optical filter of a one-dimensional photonic crystal: application to the solar thermophotovoltaic system. Physica B: Condensed Matter, 2017, 516, 92-99.	2.7	11
33	Experimental observation of bursting patterns in Van der Pol oscillators. Chaos, Solitons and Fractals, 2017, 94, 95-101.	5.1	28
34	Experimental Synchronization of Two Van der Pol Oscillators with Nonlinear and Delayed Unidirectional Coupling. International Journal of Nonlinear Sciences and Numerical Simulation, 2017, 18, 515-523.	1.0	3
35	Coherence and stochastic resonance in a birhythmic van der Pol system. European Physical Journal B, 2017, 90, 1.	1.5	13
36	Constructing and analyzing of a unique three-dimensional chaotic autonomous system exhibiting three families of hidden attractors. Mathematics and Computers in Simulation, 2017, 132, 172-182.	4.4	25

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37	Analysis of a No Equilibrium Linear Resistive-Capacitive-Inductance Shunted Junction Model, Dynamics, Synchronization, and Application to Digital Cryptography in Its Fractional-Order Form. Complexity, 2017, 2017, 1-12.	1.6	26
38	An Electromechanical Pendulum Robot Arm in Action: Dynamics and Control. Shock and Vibration, 2017, 2017, 1-13.	0.6	4
39	Adaptive controllers for a piezoelectric actuator without and with discontinuity. International Journal of Mechatronics and Automation, 2017, 6, 29.	0.2	0
40	Dynamics of three unidirectionally coupled autonomous Duffing oscillators and application to inchworm piezoelectric motors: Effects of the coupling coefficient and delay. Chaos, 2016, 26, 113108.	2.5	17
41	Response of a resonant tunnelling diode optoelectronic oscillator coupled to a non-linear electrical circuit. IET Optoelectronics, 2016, 10, 205-210.	3.3	1
42	Breather and Pulse-Package Dynamics in Multinonlinear Electrooptical Systems With Delayed Feedback. IEEE Photonics Journal, 2016, 8, 1-8.	2.0	18
43	Chaos in a new bistable rotating electromechanical system. Chaos, Solitons and Fractals, 2016, 93, 48-57.	5.1	33
44	Analysis of an electrostatic energy harvester with variable area, permittivity and radius. European Physical Journal B, 2016, 89, 1.	1.5	4
45	Bifurcation structures in three unidirectionally coupled electromechanical systems with no external signal and with regenerative process. Nonlinear Dynamics, 2016, 84, 1961-1972.	5.2	13
46	Signal bi-amplification in networks of unidirectionally coupled MEMS. European Physical Journal B, 2016, 89, 1.	1.5	4
47	Three-Dimensional Chaotic Autonomous System with a Circular Equilibrium: Analysis, Circuit Implementation and Its Fractional-Order Form. Circuits, Systems, and Signal Processing, 2016, 35, 1933-1948.	2.0	75
48	The Simplest Laser-Based Optoelectronic Oscillator: An Experimental and Theoretical Study. Journal of Lightwave Technology, 2016, 34, 873-878.	4.6	22
49	Behavior of a new electronic circuit mimicking the edge-emitting semiconductor laser. Optik, 2016, 127, 3430-3434.	2.9	1
50	An extension of AUFSSR scheme for the ideal magnetohydrodynamics equations. Computers and Fluids, 2015, 114, 297-313.	2.5	5
51	Mixed-mode oscillations in slow-fast delayed optoelectronic systems. Physical Review E, 2015, 91, 012902.	2.1	47
52	Effects of asymmetry, transmission delay and noises on the stability of an elementary electricity network. European Physical Journal B, 2015, 88, 1.	1.5	4
53	Edge-emitting semiconductor laser subject to nonsinusoidal excitation from three-dimensional autonomous system: numerical and electronic models analysis. Optical and Quantum Electronics, 2015, 47, 3405-3417.	3.3	5
54	Analysis of Phase-Locking in Narrow-Band Optoelectronic Oscillators With Intermediate Frequency. IEEE Journal of Quantum Electronics, 2015, 51, 1-8.	1.9	28

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55	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
56	Effects of springs on a pendulum electromechanical energy harvester. <i>Theoretical and Applied Mechanics Letters</i> , 2014, 4, 063001.	2.8	20
57	Analysis of an electromechanical energy harvester system with geometric and ferroresonant nonlinearities. <i>Nonlinear Dynamics</i> , 2014, 76, 1561-1568.	5.2	20
58	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
59	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
60	A hybrid numerical method and its application to inviscid compressible flow problems. <i>Computer Physics Communications</i> , 2014, 185, 479-488.	7.5	13
61	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
62	Rogue waves in Lugiato-Lefever equation with variable coefficients. <i>Open Physics</i> , 2014, 12, .	1.7	2
63	Robustness of continuous-variable entanglement via geometrical nonlinearity. <i>Physical Review A</i> , 2014, 90, .	2.5	11
64	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
65	Quantum Associative Memory with Improved Distributed Queries. <i>International Journal of Theoretical Physics</i> , 2013, 52, 1787-1801.	1.2	8
66	Synchronization of simplest two-component Hartley's chaotic circuits: influence of channel. <i>Nonlinear Dynamics</i> , 2013, 74, 1065-1075.	5.2	6
67	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
68	Classical and semiclassical studies of nonlinear nano-optomechanical oscillators. <i>European Physical Journal D</i> , 2013, 67, 1.	1.3	7
69	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
70	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
71	Electrical dark compacton generator: Theory and simulations. <i>Physical Review E</i> , 2012, 85, 056606.	2.1	14
72	Semiconductor lasers driven by self-sustained chaotic electronic oscillators and applications to optical chaos cryptography. <i>Chaos</i> , 2012, 22, 033108.	2.5	18

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73	Hartley's oscillator: The simplest chaotic two-component circuit. <i>Chaos, Solitons and Fractals</i> , 2012, 45, 306-313.	5.1	59
74	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
75	Bursting oscillations in electromechanical systems. <i>Mechanics Research Communications</i> , 2011, 38, 537-541.	1.8	72
76	The design of a reflectionless arterial prosthesis. <i>Journal of Biological Physics</i> , 2011, 37, 51-60.	1.5	2
77	Dynamics of a cantilever arm actuated by a nonlinear electrical circuit. <i>Nonlinear Dynamics</i> , 2011, 63, 807-818.	5.2	8
78	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
79	DYNAMICS OF THE TRANSITION TO PATHOGENICITY IN <i>ERWINIA CHRYSANTHEMI</i> . <i>Journal of Biological Systems</i> , 2010, 18, 173-203.	1.4	4
80	Metallic Iron Filters for Universal Access to Safe Drinking Water. <i>Clean - Soil, Air, Water</i> , 2009, 37, 930-937.	1.1	85
81	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
82	The complete synchronization condition in a network of piezoelectric micro-beams. <i>Nonlinear Dynamics</i> , 2009, 57, 261-274.	5.2	7
83	Electronic model for VCSELs: Switching mode, control of threshold current and saturation. <i>Optics Communications</i> , 2009, 282, 4390-4396.	2.1	3
84	Chaotic synchronization with experimental application to secure communications. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2009, 14, 2266-2276.	3.3	78
85	Noise induced intercellular propagation of calcium waves. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 2519-2525.	2.6	3
86	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
87	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
88	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
89	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
90	Dynamics of solitary waves over an erodible surface. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 345, 9-16.	2.6	2

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91	Dynamics of Solitary Waves Through Taper-Thin Elastic Tube with Localized Deformation. <i>Physica Scripta</i> , 2004, 69, 249-256.	2.5	6
92	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
93	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
94	Dynamics of Vertical-Cavity Surface-Emitting lasers under AM and FM current modulations. <i>Physica Scripta</i> , 0, , .	2.5	1
95	Secondary frequency control stabilising voltage dynamics. <i>European Journal of Applied Mathematics</i> , 0, , 1-17.	2.9	0