Michele Bonnin

List of Publications by Year
in descending order

74 papers	464 citations	758635 12 h-index	794141 19 g-index
74 all docs	74 docs citations	74 times ranked	216 citing authors

#	Article	IF	Citations
1	Coupled Oscillator Networks forÂvonÂNeumann and Non-von Neumann Computing. Learning and Analytics in Intelligent Systems, 2022, , 179-207.	0.5	1
2	An Impedance Matching Solution to Increase the Harvested Power and Efficiency of Nonlinear Piezoelectric Energy Harvesters. Energies, 2022, 15, 2764.	1.6	20
3	Leveraging circuit theory and nonlinear dynamics for the efficiency improvement of energy harvesting. Nonlinear Dynamics, 2021, 104, 367-382.	2.7	19
4	The Complex World of Oscillator Noise: Modern Approaches to Oscillator (Phase and Amplitude) Noise Analysis. IEEE Microwave Magazine, 2021, 22, 24-32.	0.7	2
5	On the application of circuit theory and nonlinear dynamics to the design of highly efficient energy harvesting systems. , 2021, , .		3
6	Analysis of influence of nonlinearities and noise correlation time in a single-DOF energy-harvesting system via power balance description. Nonlinear Dynamics, 2020, 100, 119-133.	2.7	17
7	Colored Noise in Oscillators. Phase-Amplitude Analysis and a Method to Avoid the itÃ´-Stratonovich Dilemma. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3917-3927.	3.5	8
8	Logic Gates Implementation with Coupled Oscillators. , 2018, , .		2
9	Efficient spectral domain technique for the frequency locking analysis of nonlinear oscillators. European Physical Journal Plus, 2018, 133, 1.	1.2	3
10	Amplitude and phase dynamics of noisy oscillators. International Journal of Circuit Theory and Applications, 2017, 45, 636-659.	1.3	29
11	Efficient vibration energy harvesting through noise induced transitions. , 2017, , .		0
12	Kuramoto-like model of noisy oscillators. , 2017, , .		0
13	Vibration energy harvesting enhancement in systems with modulated noise. , 2017, , .		0
14	Phase oscillator model for noisy oscillators. European Physical Journal: Special Topics, 2017, 226, 3227-3237.	1.2	5
15	A mathematical framework for amplitude and phase noise analysis of coupled oscillators. European Physical Journal: Special Topics, 2016, 225, 171-186.	1.2	4
16	Influence of Amplitude Fluctuations on the Noise-Induced Frequency Shift of Noisy Oscillators. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 698-702.	2.2	8
17	Noise in oscillators: a review of state space decomposition approaches. Journal of Computational Electronics, 2015, 14, 51-61.	1.3	12
18	Phase noise spectrum of oscillators described by Itô stochastic differential equations. , 2015, , .		1

#	ARTICLE	IF	CITATIONS
19	Phase and amplitude dynamics of noisy oscillators described by Itô stochastic differential equations. , 2015, , .		1
20	Influence of Noise on the Phase and Amplitude of Second-Order Oscillators. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 158-162.	2.2	13
21	Phase noise, and phase models: Recent developments, new insights and open problems. Nonlinear Theory and Its Applications IEICE, 2014, 5, 365-378.	0.4	7
22	An image cascaded twoâ€port model for singleâ€particle quantum propagation in crystals. International Journal of Circuit Theory and Applications, 2013, 41, 552-562.	1.3	3
23	Horseshoe chaos and subharmonic orbits in the nanoelectromechanical Casimir nonlinear oscillator. International Journal of Circuit Theory and Applications, 2013, 41, 583-602.	1.3	2
24	The spatial Cauchy problem for a dissipative infinite quantum waveguide supporting a single propagating mode. , 2013, , .		0
25	Evaluating the influence of noise on the spectrum of an oscillator. , 2013, , .		1
26	Phase Noise and Noise Induced Frequency Shift in Stochastic Nonlinear Oscillators. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 2104-2115.	3.5	35
27	On the phase space decomposition for weakly connected oscillatory networks with 2nd order cells. , 2012, , .		0
28	MULTIPLE ATTRACTORS AND BIFURCATIONS IN HARD OSCILLATORS DRIVEN BY CONSTANT INPUTS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250267.	0.7	3
29	Phase model reduction for oscillatory networks subject to stochastic inputs. , 2012, , .		0
30	Phase Space Decomposition for Phase Noise and Synchronization Analysis of Planar Nonlinear Oscillators. IEEE Transactions on Circuits and Systems II: Express Briefs, 2012, 59, 638-642.	2.2	21
31	An equivalent circuit for a two-state quantum system coupled to a single-mode electromagnetic cavity. , 2011, , .		1
32	Synchronization phenomena in neural networks of hard oscillators. , 2011, , .		0
33	Emerging dynamics in neuronal networks of diffusively coupled hard oscillators. Neural Networks, 2011, 24, 466-475.	3.3	3
34	A cascaded two-port model for quantum particles propagation in crystals. , 2011, , .		1
35	Influence of external input on Oscillatory Cellular Nonlinear Networks dynamics. , 2011, , .		0
36	Existence, number, and stability of limit cycles in weakly dissipative, strongly nonlinear oscillators. Nonlinear Dynamics, 2010, 62, 321-332.	2.7	3

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37	PHASE MODEL REDUCTION AND SYNCHRONIZATION OF PERIODICALLY FORCED NONLINEAR OSCILLATORS. Journal of Circuits, Systems and Computers, 2010, 19, 749-762.	1.0	8
38	PHASE MODEL REDUCTION AND PHASE LOCKING OF COUPLED NONLINEAR OSCILLATORS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 645-656.	0.7	3
39	A phase model approach for synchronization analysis of coupled nonlinear oscillators. , 2010, , .		1
40	A transmission line model for the free electron-positron field. , 2010, , .		1
41	Equivalent circuits for two-fermion four-state quantum systems. , 2009, , .		1
42	Phase model reduction and synchronization of nonlinear oscillators by a periodic force. , 2009, , .		4
43	DILIBERTO'S THEOREM IN HIGHER DIMENSION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 629-637.	0.7	2
44	Waves and patterns in ring lattices with delays. Physica D: Nonlinear Phenomena, 2009, 238, 77-87.	1.3	22
45	Harmonic Balance, Melnikov method and nonlinear oscillators under resonant perturbation. International Journal of Circuit Theory and Applications, 2008, 36, 247-274.	1.3	21
46	Bio-inspired oscillating media supporting spiral waves patterns. , 2008, , .		0
47	Periodic Oscillations in Weakly Connected Cellular Nonlinear Networks. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1671-1684.	3.5	28
48	Spatially Extended Spinning Quantum Systems. , 2008, , .		1
49	THE HARMONIC BALANCE TECHNIQUE ANALYSIS OF OPEN QUANTUM SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 1973-1982.	0.7	0
50	Waves and patterns in delayed oscillatory networks. , 2008, , .		1
51	On the Global Dynamic Behavior of Trapped Ions in a Thermal Environment. , 2008, , .		0
52	Nondeterministic finite automata based on star cellular nonlinear networks. , 2008, , .		0
53	BIFURCATIONS, STABILITY AND SYNCHRONIZATION IN DELAYED OSCILLATORY NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 4033-4048.	0.7	9
54	WEAKLY CONNECTED OSCILLATORY NETWORK MODELS FOR ASSOCIATIVE AND DYNAMIC MEMORIES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 4365-4379.	0.7	33

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55	Frequency domain analysis of open two-state quantum systems. , 2007, , .		1
56	Open Two-State Quantum Systems Solved by Harmonic Balance. , 2007, , .		0
57	Harmonic balance, Melnikov method and nonlinear oscillators under resonant perturbation. , 2007, , .		0
58	Small Amplitude, Phase Locked Response in Oscillatory Networks with Delays. , 2007, , .		1
59	On the Application of the Describing Function Technique to the Bifurcation Analysis of Nonlinear Systems. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 343-347.	2.3	12
60	Equivalent circuits for two-state quantum systems. International Journal of Circuit Theory and Applications, 2007, 35, 265-280.	1.3	9
61	Weakly connected oscillatory networks for dynamic pattern recognition. , 2006, , .		0
62	Weakly Connected Oscllatory Networks as Assoclative and Dynamic Memories. , 2006, , .		0
63	Equivalent circuits for small signal performance of spin Â½ particles. International Journal of Circuit Theory and Applications, 2006, 34, 165-182.	1.3	12
64	Weakly connected oscillatory networks for dynamic pattern recognition. , 2005, , .		6
65	ON GLOBAL DYNAMIC BEHAVIOR OF WEAKLY CONNECTED OSCILLATORY NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 1377-1393.	0.7	33
66	A mixed time-frequency-domain approach for the analysis of a hysteretic oscillator. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2005, 52, 525-529.	2.3	9
67	Basic concepts of quantum systems versus classical networks. International Journal of Circuit Theory and Applications, 2004, 32, 383-405.	1.3	4
68	On Global Dynamic Behavior of Weakly Connected Cellular Nonlinear Networks. , 0, , .		2
69	Periodic oscillations in weakly connected cellular nonlinear networks. , 0, , .		2
70	Oscillatory Behavior in Two-dimensional Weakly Connected Cellular Nonlinear Networks. , 0, , .		1
71	Analysis of a Hysteretic Oscillator through a Mixed Time-Frequency Domain Approach. , 0, , .		1
72	Circuit models for small signal performance of nanodevices based on two-state quantum systems. , 0, , .		4

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73	Information and Image Processing through Bio-inspired Oscillatory Cellular Nonlinear Networks. , 0, , .		2
74	Circuit Models for Small Signal Performance of Spin 1/2 Quantum Systems. , 0, , .		2