

Fabio L Traversa

List of Publications by Year in descending order

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papers

823
citations

471509

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62
docs citations

62
times ranked

501
citing authors

#	ARTICLE	IF	CITATIONS
1	An Impedance Matching Solution to Increase the Harvested Power and Efficiency of Nonlinear Piezoelectric Energy Harvesters. <i>Energies</i> , 2022, 15, 2764.	3.1	20
2	Leveraging circuit theory and nonlinear dynamics for the efficiency improvement of energy harvesting. <i>Nonlinear Dynamics</i> , 2021, 104, 367-382.	5.2	19
3	The Complex World of Oscillator Noise: Modern Approaches to Oscillator (Phase and Amplitude) Noise Analysis. <i>IEEE Microwave Magazine</i> , 2021, 22, 24-32.	0.8	2
4	On the application of circuit theory and nonlinear dynamics to the design of highly efficient energy harvesting systems. , 2021, , .		3
5	Global minimization via classical tunneling assisted by collective force field formation. <i>Science Advances</i> , 2021, 7, eabh1542.	10.3	11
6	Stress-Testing Memcomputing on Hard Combinatorial Optimization Problems. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2020, 31, 2222-2226.	11.3	5
7	Analysis of influence of nonlinearities and noise correlation time in a single-DOF energy-harvesting system via power balance description. <i>Nonlinear Dynamics</i> , 2020, 100, 119-133.	5.2	17
8	Application of Floquet theory to dynamical systems with memory. <i>Chaos</i> , 2020, 30, 123102.	2.5	3
9	Colored Noise in Oscillators. Phase-Amplitude Analysis and a Method to Avoid the itÃ-Stratonovich Dilemma. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019, 66, 3917-3927.	5.4	8
10	Taming a nonconvex landscape with dynamical long-range order: Memcomputing Ising benchmarks. <i>Physical Review E</i> , 2019, 100, 053311.	2.1	13
11	On the Universality of Memcomputing Machines. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2019, 30, 1610-1620.	11.3	3
12	Accelerating deep learning with memcomputing. <i>Neural Networks</i> , 2019, 110, 1-7.	5.9	23
13	Instantons in Self-Organizing Logic Gates. <i>Physical Review Applied</i> , 2018, 9, .	3.8	13
14	Memcomputing Numerical Inversion With Self-Organizing Logic Gates. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2018, 29, 2645-2650.	11.3	5
15	Evidence of Exponential Speed-Up in the Solution of Hard Optimization Problems. <i>Complexity</i> , 2018, 2018, 1-13.	1.6	20
16	Perspective: Memcomputing: Leveraging memory and physics to compute efficiently. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	60
17	Polynomial-time solution of prime factorization and NP-complete problems with digital memcomputing machines. <i>Chaos</i> , 2017, 27, 023107.	2.5	67
18	Absence of chaos in digital memcomputing machines with solutions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2017, 381, 3255-3257.	2.1	14

#	ARTICLE	IF	CITATIONS
19	Absence of periodic orbits in digital memcomputing machines with solutions. Chaos, 2017, 27, 101101.	2.5	10
20	Topological Field Theory and Computing with Instantons. Annalen Der Physik, 2017, 529, 1700123.	2.4	23
21	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.	3.0	8
22	Digital Memcomputing Machines. , 2016, , .		0
23	Phase noise spectrum of oscillators described by Itô stochastic differential equations. , 2015, , .		1
24	Dynamic computing random access memory: A brain-inspired computing paradigm with memelements. , 2014, , .		0
25	Floquet-Based Stability Analysis of Power Amplifiers Including Distributed Elements. IEEE Microwave and Wireless Components Letters, 2014, 24, 493-495.	3.2	4
26	Large-Signal Stability of Symmetric Multibranch Power Amplifiers Exploiting Floquet Analysis. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 1580-1587.	4.6	15
27	Memory Models of Adaptive Behavior. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 1437-1448.	11.3	35
28	Improving the intrinsic cut-off frequency of gate-all-around quantum-wire transistors without channel length scaling. Applied Physics Letters, 2013, 102, .	3.3	12
29	Selective Determination of Floquet Quantities for the Efficient Assessment of Limit Cycle Stability and Oscillator Noise. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2013, 32, 313-317.	2.7	14
30	Towards frequency performance improvement of emerging devices without length scaling. , 2013, , .		0
31	A 2D driven brownian particle with memory. , 2013, , .		0
32	Generalized Floquet Theory: Application to Dynamical Systems with Memory and Blochâ€™s Theorem for Nonlocal Potentials. Physical Review Letters, 2013, 110, 170602.	7.8	27
33	Robust weak-measurement protocol for Bohmian velocities. Physical Review A, 2013, 87, .	2.5	24
34	Application of Floquet theory to the large signal stability analysis of microwave amplifiers. , 2013, , .		3
35	A new numerical approach for the efficient computation of Floquet multipliers within the harmonic balance technique. , 2013, , .		3
36	EFFECT OF GATE-ALL-AROUND TRANSISTOR GEOMETRY ON THE HIGH-FREQUENCY NOISE: ANALYTICAL DISCUSSION. Fluctuation and Noise Letters, 2012, 11, 1241002.	1.5	13

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37	COMPUTATION OF QUANTUM ELECTRICAL CURRENTS THROUGH THE RAMOâ€“SHOCKLEYâ€“PELLEGRINI THEOREM WITH TRAJECTORIES. Fluctuation and Noise Letters, 2012, 11, 1242008.	1.5	20
38	Multi-time measurement and displacement current in time-dependent quantum transport. , 2012, , .		0
39	Geometry engineering for the RF behavior of low-dimensional gate-all-around transistors. , 2012, , .		0
40	Towards the control of power dissipation through the use of many-body Coulomb correlations. , 2012, , .		0
41	Improved harmonic balance implementation of Floquet analysis for nonlinear circuit simulation. AEU - International Journal of Electronics and Communications, 2012, 66, 357-363.	2.9	32
42	A rigorous analysis of oscillator noise including orbital fluctuations. , 2011, , .		0
43	Analytical assessment of orbital noise effects in ring oscillators. , 2011, , .		1
44	Oscillator Noise: A Nonlinear Perturbative Theory Including Orbital Fluctuations and Phase-Orbital Correlation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 2485-2497.	5.4	38
45	Frequency-domain evaluation of the adjoint Floquet eigenvectors for oscillator noise characterisation. IET Circuits, Devices and Systems, 2011, 5, 46.	1.4	20
46	Time-Dependent Many-Particle Simulation for Resonant Tunneling Diodes: Interpretation of an Analytical Small-Signal Equivalent Circuit. IEEE Transactions on Electron Devices, 2011, 58, 2104-2112.	3.0	27
47	Bohmian formulation of Full Counting Statistics in mesoscopic systems. , 2011, , .		1
48	BITLLES: An approach to quantum time-dependent electron transport at the nanoscale. , 2011, , .		2
49	Including orbital fluctuations in the noise spectrum of autonomous circuits. International Journal of Microwave and Wireless Technologies, 2011, 3, 11-18.	1.9	2
50	Study of the effect of device geometry on the AC behaviour of nanoelectronic devices. , 2011, , .		0
51	ASYMPTOTIC STOCHASTIC CHARACTERIZATION OF PHASE AND AMPLITUDE NOISE IN FREE-RUNNING OSCILLATORS. Fluctuation and Noise Letters, 2011, 10, 207-221.	1.5	15
52	A Generalized Drift-Diffusion Model for Rectifying Schottky Contact Simulation. IEEE Transactions on Electron Devices, 2010, 57, 1539-1547.	3.0	6
53	Distribution and biokinetic analysis of ²¹⁰ Pb and ²¹⁰ Po in poultry due to ingestion of dicalcium phosphate. Science of the Total Environment, 2010, 408, 4695-4701.	8.0	8
54	The BITLLES simulator for nanoscale devices. , 2010, , .		0

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55	Oscillator noise: a rigorous analysis including orbital fluctuations. , 2010, , .		2
56	Assessment of Thermal Instabilities and Oscillations in Multifinger Heterojunction Bipolar Transistors Through a Harmonic-Balance-Based CAD-Oriented Dynamic Stability Analysis Technique. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3461-3468.	4.6	8
57	A frequencyâ€domain approach to the analysis of stability and bifurcations in nonlinear systems described by differentialâ€algebraic equations. International Journal of Circuit Theory and Applications, 2008, 36, 421-439.	2.0	48
58	A rigorous assessment of electro-thermal device instabilities via Harmonic Balance modeling. , 2008, , .		0
59	A rigorous assessment of electro-thermal device instabilities via Harmonic Balance modeling. , 2008, , .		2
60	A critical discussion of the current collapse in multifinger HBTs based on Floquet stability analysis. , 2008, , .		2
61	Two-Point Versus Multipartite Entanglement in Quantum Phase Transitions. Physical Review Letters, 2005, 95, 056402.	7.8	87