Giovanni Filatrella

List of Publications by Year
in descending order

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129	1,988	331259	301761
papers	citations	21 h-index	39 g-index

131	131	131	1149
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analysis of a power grid using a Kuramoto-like model. European Physical Journal B, 2008, 61, 485-491.	0.6	420
2	Anomalous transport effects on switching currents of graphene-based Josephson junctions. Nanotechnology, 2017, 28, 134001.	1.3	98
3	Microwave phase locking of Josephson-junction fluxon oscillators. Physical Review B, 1990, 41, 6641-6654.	1.1	66
4	High-Qcavity-induced synchronization in oscillator arrays. Physical Review E, 2000, 61, 2513-2518.	0.8	66
5	Josephson-based Threshold Detector for LÃ©vy-Distributed Current Fluctuations. Physical Review Applied, 2019, 11, .	1.5	66
6	Generalized coupling in the Kuramoto model. Physical Review E, 2007, 75, 017201.	0.8	57
7	Characterization of escape times of Josephson junctions for signal detection. Physical Review E, 2012, 85, 016708.	0.8	45
8	A simple map describing phase-locking of fluxon oscillations in long Josephson tunnel junctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 137, 75-78.	0.9	42
9	Magneticâ€field effect in a twoâ€dimensional array of short Josephson junctions. Journal of Applied Physics, 1995, 78, 1878-1883.	1.1	35
10	Double parametric resonance for matter-wave solitons in a time-modulated trap. Physical Review E, 2005, 71, 036619.	0.8	35
11	Global stability analysis of birhythmicity in a self-sustained oscillator. Chaos, 2010, 20, 013114.	1.0	33
12	Stochastic bifurcations induced by correlated noise in a birhythmic van der Pol system. Communications in Nonlinear Science and Numerical Simulation, 2016, 33, 70-84.	1.7	32
13	Detection of noise-corrupted sinusoidal signals with Josephson junctions. Physical Review E, 2010, 82, 046712.	0.8	31
14	Strange attractors and synchronization dynamics of coupled Van der Polâ€“Duffing oscillators. Communications in Nonlinear Science and Numerical Simulation, 2008, 13, 1121-1130.	1.7	29
15	Suppression of chaos in the perturbed sine-Gordon system by weak periodic signals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 178, 81-84.	0.9	28
16	Effective Fokker-Planck equation for birhythmic modified van der Pol oscillator. Chaos, 2012, 22, 043114.	1.0	28
17	ON TECHNOLOGY COMPETITION: A FORMAL ANALYSIS OF THE â€˜SAILING-SHIP EFFECTâ€™. Economics of Innovation and New Technology, 2008, 17, 593-610.	2.1	26
18	Stability of the synchronized network of Hindmarshâ€“Rose neuronal models with nearest and global couplings. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 545-563.	1.7	25

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19	Voltage drop across Josephson junctions for LÃ©vy noise detection. Physical Review Research, 2020, 2, .	1.3	24
20	Status of the SIMP Project: Toward the Single Microwave Photon Detection. Journal of Low Temperature Physics, 2020, 199, 348-354.	0.6	23
21	Broken Symmetry of Row Switching in 2D Josephson Junction Arrays. Physical Review Letters, 1999, 83, 5354-5357.	2.9	22
22	Synchronization of underdamped Josephson-junction arrays. European Physical Journal B, 2003, 34, 3-8.	0.6	22
23	Experimental realization of a relativistic fluxon ratchet. Physica C: Superconductivity and Its Applications, 2002, 382, 337-341.	0.6	21
24	Stability of the synchronization manifold in nearest neighbor nonidentical van der Pol-like oscillators. Nonlinear Dynamics, 2010, 61, 275-294.	2.7	21
25	Effects of a periodic drive and correlated noise on birhythmic van der Pol systems. Physica A: Statistical Mechanics and Its Applications, 2017, 466, 552-569.	1.2	20
26	Effects of noise correlation on the coherence of a forced van der Pol type birhythmic system. Communications in Nonlinear Science and Numerical Simulation, 2018, 62, 1-17.	1.7	20
27	Flux distribution and critical currents in a one-dimensional row of a Josephson junction square lattice. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 223, 463-469.	0.9	19
28	Interplay between detection strategies and stochastic resonance properties. Communications in Nonlinear Science and Numerical Simulation, 2016, 30, 15-31.	1.7	19
29	Multiâ€walled carbon nanotube films for the measurement of the alcoholic concentration. Micro and Nano Letters, 2019, 14, 304-308.	0.6	19
30	Interaction between a BSCCO-type intrinsic Josephson junction and a microwave cavity. European Physical Journal B, 2004, 40, 209-215.	0.6	18
31	Model studies of long Josephson junction arrays coupled to a highâ€Qresonator. Journal of Applied Physics, 1992, 72, 3179-3185.	1.1	17
32	Self-field effects in Josephson junction arrays. Physical Review B, 1996, 53, 2732-2738.	1.1	16
33	Domain walls and bubble droplets in immiscible binary Bose gases. Physical Review A, 2014, 90, .	1.0	16
34	Analysis of Josephson junctions switching time distributions for the detection of single microwave photons. Chaos, Solitons and Fractals, 2021, 142, 110496.	2.5	16
35	Inverse ac Josephson effect for a fluxon in a long modulated junction. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 198, 43-50.	0.9	15
36	Pseudopotential of birhythmic van der Pol-type systems with correlated noise. Nonlinear Dynamics, 2016, 84, 627-639.	2.7	15

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37	Josephson-Based Scheme for the Detection of Microwave Photons. Physical Review Applied, 2021, 16, .	1.5	15
38	Threshold analysis for the inverse ac Josephson effect. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 180, 346-349.	0.9	14
39	Noise effects on a birhythmic Josephson junction coupled to a resonator. Physical Review E, 2014, 89, 052905.	0.8	14
40	Detection of signals in presence of noise through Josephson junction switching currents. Physical Review E, 2020, 101, 052205.	0.8	14
41	Coherence and stochastic resonance in a birhythmic van der Pol system. European Physical Journal B, 2017, 90, 1.	0.6	13
42	Multiâ€fluxon zeroâ€field modes in long Josephson tunnel junctions. Journal of Applied Physics, 1995, 77, 2598-2606.	1.1	12
43	Emission of radiation from square arrays of stacked Josephson junctions. Journal of Applied Physics, 2001, 90, 5675-5679.	1.1	12
44	Amplitude stochastic response of Rayleigh beams to randomly moving loads. Nonlinear Dynamics, 2017, 89, 925-937.	2.7	12
45	On endogenous growth and increasing returns: modeling learning-by-doing and the division of labor. Journal of Economic Behavior and Organization, 2001, 46, 39-55.	1.0	11
46	Escape time characterization of pendular Fabry-Perot. Europhysics Letters, 2013, 101, 20005.	0.7	11
47	Stochastic first passage time accelerated with CUDA. Journal of Computational Physics, 2018, 361, 136-149.	1.9	11
48	Noise and disorder effects in a series of birhythmic Josephson junctions coupled to a resonator. Physical Review E, 2019, 99, 032220.	0.8	11
49	Phase locking of fluxon oscillations in long Josephson tunnel junctions with surface losses. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 148, 122-126.	0.9	10
50	Linewidth calculation for bare 2D Josephson arrays. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 233, 373-377.	0.9	10
51	The alternating-current-driven motion of dislocations in a weakly damped Frenkel - Kontorova lattice. Journal of Physics Condensed Matter, 1999, 11, 7103-7114.	0.7	10
52	Two-dimensional Josephson junction arrays coupled through a high-Q cavity. IEEE Transactions on Applied Superconductivity, 2001, 11, 1184-1187.	1.1	10
53	Development of a Josephson junction based single photon microwave detector for axion detection experiments. Journal of Physics: Conference Series, 2020, 1559, 012020.	0.3	10
54	Josephson Junctions as Single Microwave Photon Counters: Simulation and Characterization. Instruments, 2021, 5, 25.	0.8	10

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55	Chaotic dynamics in the map model of fluxon propagation in long Josephson junctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 156, 211-215.	0.9	9
56	Flux flow in highâ€Tcjosephson junctions. Applied Physics Letters, 1993, 63, 1420-1422.	1.5	9
57	Soliton dynamics in two-dimensional Josephson tunnel junctions. Physical Review B, 1993, 48, 16623-16629.	1.1	9
58	Effect of cross-type bias in a two-dimensional array of short Josephson junctions. Applied Physics Letters, 1998, 72, 1107-1109.	1.5	9
59	Mutual inductance effects in rf driven planar Josephson junctions arrays. European Physical Journal B, 1999, 12, 23-30.	0.6	9
60	On delayed technological shifts. Economics of Innovation and New Technology, 2011, 20, 563-580.	2.1	9
61	Josephson-junction-based axion detection through resonant activation. Physical Review D, 2022, 105, .	1.6	9
62	Flux pinning barriers in two-dimensional arrays of short Josephson junctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 193, 491-497.	0.9	8
63	Noise-induced dephasing of an ac-driven Josephson junction. Physical Review E, 2002, 65, 051116.	0.8	8
64	Application of the Feshbach-resonance management to a tightly confined Bose-Einstein condensate. Physical Review A, 2009, 79, .	1.0	8
65	Fabryâ€“Perot filters with tunable Josephson junction defects. Physica C: Superconductivity and Its Applications, 2015, 517, 37-40.	0.6	8
66	LÃ©vy noise induced transitions and enhanced stability in a birhythmic van der Pol system. European Physical Journal B, 2019, 92, 1.	0.6	8
67	On the switching between soliton dynamic states in long Josephson junctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 172, 127-130.	0.9	7
68	Long Josephson junctions driven by biharmonic signals. Physical Review B, 1994, 50, 12802-12810.	1.1	7
69	Experimental critical current patterns in Josephson junction ladders. Physical Review B, 2000, 62, 8679-8682.	1.1	7
70	Irreversible dynamics of Abrikosov vortices in type-two superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 329, 379-384.	0.9	7
71	Comparison between electric and magnetic rf drive in long Josephson junctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 153, 446-450.	0.9	6
72	Synchronization of Josephson vortices in multi-junction systems. Physica C: Superconductivity and Its Applications, 2006, 437-438, 65-68.	0.6	6

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73	Negative Differential Resistance due to Nonlinearities in Single and Stacked Josephson Junctions. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-7.	1.1	6
74	How quiz-based tools can improve students' engagement and participation in the classroom. , 2014, , .		6
75	The â€œsailing-ship effectâ€• as a technological principle. Industrial and Corporate Change, 2022, 30, 1459-1478.	1.7	6
76	Coupling of a Josephson soliton oscillator to coplanar and microstrip cavities. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 165, 241-244.	0.9	5
77	Phase locking of fluxons in spatially inhomogeneous Josephson junctions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 228, 250-254.	0.9	5
78	The mechanism of synchronization of Josephson arrays coupled to a cavity. Physica C: Superconductivity and Its Applications, 2002, 372-376, 11-13.	0.6	5
79	Negative differential resistance in Josephson junctions coupled to a cavity. Physica C: Superconductivity and Its Applications, 2014, 503, 178-182.	0.6	5
80	Desynchronization effects of a current-driven noisy Hindmarshâ€“Rose neural network. Chaos, Solitons and Fractals, 2018, 115, 204-211.	2.5	5
81	Investigation of Resonant Activation in a Josephson Junction for Axion Search With Microwave Single Photon Detection. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	5
82	Thermal expansion of Josephson junctions as an elastic response to an effective stress field. Physical Review B, 2007, 75, .	1.1	4
83	Modeling, Stability, Synchronization, and Chaos and Their Applications to Complex Systems. Abstract and Applied Analysis, 2014, 2014, 1-2.	0.3	4
84	Dependence of the maximal superconducting current on the resonance frequency in a shunted Josephson junction. Journal of Experimental and Theoretical Physics, 2017, 125, 781-788.	0.2	4
85	Effect of the fractional foundation on the response of beam structure submitted to moving and wind loads. Chaos, Solitons and Fractals, 2019, 127, 178-188.	2.5	4
86	Can LÃ©vy noise induce coherence and stochastic resonances in a birhythmic van der Pol system?. European Physical Journal B, 2020, 93, 1.	0.6	4
87	Fluxon Dynamics in Discrete Sine Gordon System. NATO ASI Series Series B: Physics, 1993, , 347-350.	0.2	4
88	Mutual phase-locking of fluxons in stacked long Josephson junctions: simulations and experiments. IEEE Transactions on Applied Superconductivity, 1997, 7, 2411-2414.	1.1	3
89	Linear and nonlinear excitations in two stacks of parallel arrays of long Josephson junctions. Physical Review B, 2000, 62, 9095-9109.	1.1	3
90	Thermal propagation of fluxons in two-dimensional Josephson junction arrays. Physical Review B, 2007, 75, .	1.1	3

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91	Dynamics of Disordered Network of Coupled Hindmarshâ€“Rose Neuronal Models. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650048.	0.7	3
92	Nonideal quantum measurement effects on the switching-current distribution of Josephson junctions. Physical Review A, 2016, 94, .	1.0	3
93	The R&D stochastic component within the â€˜sailing-ship effectâ€™. Economics of Innovation and New Technology, 2021, 30, 731-749.	2.1	3
94	Entrainment of a Van der Pol-Type Circadian Pacemaker to DaylightÂCycle. Brazilian Journal of Physics, 2021, 51, 1416-1427.	0.7	3
95	Analysis of Josephson Junction Lifetimes for the Detection of Single Photons in a Thermal Noise Background. , 2021, , .		3
96	Multi-rhythmic oscillations and correlated noise effects of a self-sustaining biological system. Nonlinear Dynamics, 2022, 108, 4315-4334.	2.7	3
97	Temporal chaos of soliton dynamics in the PDE model of long Josephson junctions. Journal of Physics A, 1993, 26, 4937-4949.	1.6	2
98	Phase-locking of disordered two-dimensional Josephson junction arrays to microwave radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 270, 195-203.	0.9	2
99	Models of classical one- and two-dimensional Josephson junction arrays and high-Tcsuperconductors. Superconductor Science and Technology, 2002, 15, 1635-1640.	1.8	2
100	Synchronization of intrinsic Josephson junctions to a cavity. Physica C: Superconductivity and Its Applications, 2004, 408-410, 560-561.	0.6	2
101	A basic thermodynamic problem in the dynamic interaction between vortices and defects. Physica C: Superconductivity and Its Applications, 2006, 437-438, 258-261.	0.6	2
102	Moving and colliding pulses in the subcritical Ginzburg-Landau model with a standing-wave drive. Physical Review E, 2007, 75, 036604.	0.8	2
103	Interfaces between Boseâ€“Einstein and Tonksâ€“Girardeau atomic gases. New Journal of Physics, 2016, 18, 025005.	1.2	2
104	Predicting one type of technological motion? A nonlinear map to study the â€˜sailing-shipâ€™ effect. Soft Computing, 2020, 24, 13813-13822.	2.1	2
105	Phase Locking Of Fluxon Oscillations In Long Josephson Junctions. , 1991, , 253-269.		2
106	Coherence and Stochastic Resonances in a Noisy van der Pol-Type Circadian Pacemaker Model Driven by Light. Brazilian Journal of Physics, 2022, 52, 1.	0.7	2
107	Chaotic motion of solitons in the PDE model of long Josephson junctions. , 1991, , 284-291.		1
108	Josephson soliton oscillators in a superconducting thin film resonator. IEEE Transactions on Applied Superconductivity, 1993, 3, 2504-2507.	1.1	1

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109	Radio-frequency properties of stacked long Josephson junctions with nonuniform bias current distribution. Journal of Applied Physics, 1999, 85, 6904-6906.	1.1	1
110	Linear and nonlinear flux dynamics in multilayered Bi2Sr2CaCu2Ox single crystals. Physica C: Superconductivity and Its Applications, 2002, 369, 171-176.	0.6	1
111	Additional Non Equilibrium Processes in the Dynamic Interaction between Flux Quanta and Defects. AIP Conference Proceedings, 2006, , .	0.3	1
112	Vortex Interaction Energy in Planar Josephson Junction Arrays at High Density. IEEE Transactions on Applied Superconductivity, 2007, 17, 3537-3540.	1.1	1
113	Escape Time of Josephson Junctions for Signal Detection. Progress in Optical Science and Photonics, 2012, , 657-678.	0.3	1
114	Noise estimate of pendular Fabry-Perot through reflectivity change. , 2014, , .		1
115	Cold numbers: Superconducting supercomputers and presumptive anomaly. Industrial and Corporate Change, 0, , .	1.7	1
116	Vibrations of an Elastic Beam Subjected by Two Kinds of Moving Loads and Positioned on a Foundation having Fractional Order Viscoelastic Physical Properties. , 0, , .		1
117	An analysis of the validity limits of the current approaches for superconducting granular systems. Physica C: Superconductivity and Its Applications, 1991, 185-189, 1885-1886.	0.6	0
118	Subharmonic self-locking of a Josephson soliton oscillator coupled to a resonator. Physica D: Nonlinear Phenomena, 1993, 68, 35-37.	1.3	0
119	High-T c Josephson junctions for electronic applications. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1994, 16, 2095-2102.	0.4	0
120	Constants of motion in the dynamics of a 2N-junction SQUID. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 205, 224-228.	0.9	0
121	Superconducting high-Tc electronic devices. Ceramics International, 1996, 22, 359-364.	2.3	0
122	Phase locking of Josephson junction arrays achieved by a non-traditional bias scheme. IEEE Transactions on Applied Superconductivity, 1999, 9, 4546-4549.	1.1	0
123	PHASE LOCKING AND AC AMPLIFICATION OF SMALL JOSEPHSON JUNCTIONS. International Journal of Modern Physics B, 2000, 14, 3098-3103.	1.0	0
124	FLUXON DYNAMICS AND RESONANCES IN STACKED ARRAYS OF JOSEPHSON JUNCTIONS. International Journal of Modern Physics B, 2000, 14, 3026-3031.	1.0	0
125	Increasing Returns, Learning-By-Doing And Neural Networksâ^—. Economics of Innovation and New Technology, 2001, 10, 325-337.	2.1	0
126	Thermal expansion of granular superconductors based on elastic response of Josephson junction arrays. Journal of Physics: Conference Series, 2008, 97, 012235.	0.3	0

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127	Switching times in Fabry-Perot measurements. , 2015, , .		0
128	Accurate switching currents measurements in quantum washboard potential. , 2016, , .		0
129	Parallel Simulation of Josephson Junctions With Multiplicative Noise. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.1	0