

Giancarlo Consolo

List of Publications by Year in descending order

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76
papers

1,799
citations

304743

22
h-index

289244

40
g-index

76
all docs

76
docs citations

76
times ranked

1285
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct observation of a propagating spin wave induced by spin-transfer torque. Nature Nanotechnology, 2011, 6, 635-638.	31.5	321
2	Experimental Evidence of Self-Localized and Propagating Spin Wave Modes in Obliquely Magnetized Current-Driven Nanocontacts. Physical Review Letters, 2010, 105, 217204.	7.8	176
3	Micromagnetic simulations using Graphics Processing Units. Journal Physics D: Applied Physics, 2012, 45, 323001.	2.8	117
4	Nonlinear frequency and amplitude modulation of a nanocontact-based spin-torque oscillator. Physical Review B, 2010, 81, .	3.2	89
5	A numerical solution of the magnetization reversal modeling in a permalloy thin film using fifth order Runge-Kutta method with adaptive step size control. Physica B: Condensed Matter, 2008, 403, 464-468.	2.7	58
6	Excitation of self-localized spin-wave bullets by spin-polarized current in in-plane magnetized magnetic nanocontacts: A micromagnetic study. Physical Review B, 2007, 76, .	3.2	54
7	Power and linewidth of propagating and localized modes in nanocontact spin-torque oscillators. Physical Review B, 2012, 85, .	3.2	49
8	Oscillatory transient regime in the forced dynamics of a nonlinear auto oscillator. Physical Review B, 2010, 82, .	3.2	42
9	Micromagnetic study of the above-threshold generation regime in a spin-torque oscillator based on a magnetic nanocontact magnetized at an arbitrary angle. Physical Review B, 2008, 78, .	3.2	41
10	Combined Frequency-Amplitude Nonlinear Modulation: Theory and Applications. IEEE Transactions on Magnetics, 2010, 46, 3629-3634.	2.1	41
11	Magnetization dynamics in nanocontact current controlled oscillators. Physical Review B, 2007, 75, .	3.2	33
12	Spread of infectious diseases in a hyperbolic reaction-diffusion susceptible-infected-removed model. Physical Review E, 2013, 88, 052719.	2.1	33
13	Estimation of the impact probability in domino effects due to the projection of fragments. Chemical Engineering Research and Design, 2015, 93, 99-110.	5.6	33
14	Boundary Conditions for Spin-Wave Absorption Based on Different Site-Dependent Damping Functions. IEEE Transactions on Magnetics, 2007, 43, 2974-2976.	2.1	32
15	Magnetization dynamics driven by the combined action of ac magnetic field and dc spin-polarized current. Journal of Applied Physics, 2006, 99, 08G507.	2.5	28
16	Pattern formation and modulation in a hyperbolic vegetation model for semiarid environments. Applied Mathematical Modelling, 2017, 43, 372-392.	4.2	28
17	Trends in spin-transfer-driven magnetization dynamics of CoFe \cdot AlO \cdot Py and CoFe \cdot MgO \cdot Py magnetic tunnel junctions. Applied Physics Letters, 2006, 89, 262509.	3.3	27
18	About identification of Scalar Preisach functions of soft magnetic materials. IEEE Transactions on Magnetics, 2006, 42, 923-926.	2.1	26

#	ARTICLE	IF	CITATIONS
19	Magnetization dynamics driven by spin-polarized current in nanomagnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 316, 488-491.	2.3	26
20	Mathematical modeling and numerical simulation of domain wall motion in magnetic nanostrips with crystallographic defects. <i>Applied Mathematical Modelling</i> , 2012, 36, 4876-4886.	4.2	26
21	Supercritical and subcritical Turing pattern formation in a hyperbolic vegetation model for flat arid environments. <i>Physica D: Nonlinear Phenomena</i> , 2019, 398, 141-163.	2.8	24
22	Micromagnetic modal analysis of spin-transfer-driven ferromagnetic resonance of individual nanomagnets. <i>Journal of Applied Physics</i> , 2007, 101, 09A502.	2.5	22
23	Nonstationary magnetization dynamics driven by spin transfer torque. <i>Physical Review B</i> , 2009, 79, .	3.2	21
24	Nanocontact spin-transfer oscillators based on perpendicular anisotropy in the free layer. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	19
25	Modelling prey-predator interactions in Messina beachrock pools. <i>Ecological Modelling</i> , 2020, 434, 109206.	2.5	19
26	Lagrangian formulation of the linear autonomous magnetization dynamics in spin-torque auto-oscillators. <i>Applied Mathematics and Computation</i> , 2011, 217, 8204-8215.	2.2	18
27	Synchronization of propagating spin-wave modes in a double-contact spin-torque oscillator: A micromagnetic study. <i>Physica B: Condensed Matter</i> , 2014, 435, 44-49.	2.7	18
28	Analytical solution of the strain-controlled magnetic domain wall motion in bilayer piezoelectric/magnetostrictive nanostructures. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	18
29	Spin-wave activation by spin-polarized current pulse in magnetic nanopillars. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 2330-2334.	2.3	17
30	Secondary seed dispersal in the Klausmeier model of vegetation for sloped semi-arid environments. <i>Ecological Modelling</i> , 2019, 402, 66-75.	2.5	17
31	Non-stationary excitation of two localized spin-wave modes in a nano-contact spin torque oscillator. <i>Journal of Applied Physics</i> , 2013, 114, 153906.	2.5	16
32	Influence of the Oersted field in the dynamics of spin-transfer microwave oscillators. <i>Journal of Applied Physics</i> , 2007, 101, 09C108.	2.5	15
33	Traveling Wave Solutions of the One-Dimensional Extended Landau-Lifshitz-Gilbert Equation with Nonlinear Dry and Viscous Dissipations. <i>Acta Applicandae Mathematicae</i> , 2012, 122, 141.	1.0	15
34	Tensor representation of magnetostriction for all crystal classes. <i>Mathematics and Mechanics of Solids</i> , 2019, 24, 2814-2843.	2.4	15
35	Micromagnetic Modeling of Nanocontact Spin-Torque Oscillators With Perpendicular Anisotropy at Zero Bias Field. <i>IEEE Transactions on Magnetics</i> , 2008, 44, 2512-2515.	2.1	14
36	Micromagnetic simulations of persistent oscillatory modes excited by spin-polarized current in nanoscale exchange-biased spin valves. <i>Journal of Applied Physics</i> , 2009, 105, 07D107.	2.5	13

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37	Curved domain walls dynamics driven by magnetic field and electric current in hard ferromagnets. Applied Mathematical Modelling, 2014, 38, 1001-1010.	4.2	13
38	Turing vegetation patterns in a generalized hyperbolic Klausmeier model. Mathematical Methods in the Applied Sciences, 2020, 43, 10474-10489.	2.3	13
39	A two or three compartments hyperbolic reaction-diffusion model for the aquatic food chain. Mathematical Biosciences and Engineering, 2015, 12, 451-472.	1.9	13
40	Spin-torque switching in Py/Cu/Py and Py/Cu/CoPt spin-valve nanopillars. Journal of Magnetism and Magnetic Materials, 2007, 316, 492-495.	2.3	12
41	Micromagnetic Modeling of Magnetization Reversal in Nano-Scale Point Contact Devices. IEEE Transactions on Magnetics, 2007, 43, 2938-2940.	2.1	12
42	Excitation of spin waves by a current-driven magnetic nanocontact in a perpendicularly magnetized waveguide. Physical Review B, 2013, 88, .	3.2	12
43	Theory of the electric field controlled antiferromagnetic spin Hall oscillator and detector. Physical Review B, 2021, 103, .	3.2	12
44	Oscillatory periodic pattern dynamics in hyperbolic reaction-advection-diffusion models. Physical Review E, 2022, 105, 034206.	2.1	11
45	Hysteretic spin-wave excitation in spin-torque oscillators as a function of the in-plane field angle: A micromagnetic description. Journal of Applied Physics, 2011, 110, 123913.	2.5	10
46	Magnetostriction in transversely isotropic hexagonal crystals. Physical Review B, 2020, 101, .	3.2	10
47	Reducing the Non-Linearities of a Spin-Torque Oscillator by Varying the Amplitude of the External Field Applied Along the In-Plane Hard-Axis. IEEE Transactions on Magnetics, 2010, 46, 1519-1522.	2.1	9
48	Micromagnetic Analysis of Nonlinear Dynamics in Spintronic Analog Modulators. IEEE Transactions on Magnetics, 2009, 45, 5239-5242.	2.1	8
49	Modulation of single and double spin torque oscillators. AIP Conference Proceedings, 2011, , .	0.4	8
50	The effect of dry friction on domain wall dynamics: A micromagnetic study. Journal of Applied Physics, 2012, 111, .	2.5	8
51	Human Factors Modelling Approach: Application to a Safety Device Supporting Crane Operations in Major Hazard Industries. Sustainability, 2021, 13, 2304.	3.2	8
52	Modeling magnetic domain-wall evolution in trilayers with structural inversion asymmetry. Ricerche Di Matematica, 2018, 67, 1001-1015.	1.0	7
53	On the statics and dynamics of transverse domain walls in bilayer piezoelectric-magnetostrictive nanostructures. Applied Mathematical Modelling, 2020, 83, 13-29.	4.2	7
54	Strain-mediated propagation of magnetic domain-walls in cubic magnetostrictive materials. Ricerche Di Matematica, 2021, 70, 81-97.	1.0	7

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55	Influence of Different Spatial Distributions of Current Density and Spin-Torque Efficiency in the Dynamics of Point-Contact Devices. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 2827-2829.	2.1	6
56	Numerical Analysis of the Nonlinear Excitation of Subcritical Spin-Wave Modes Within a Micromagnetic Framework. <i>IEEE Transactions on Magnetics</i> , 2009, 45, 5220-5223.	2.1	5
57	Analytical and Micromagnetic Study of Nonlinear Amplitude Modulation in Spintronic Modulators. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 2063-2066.	2.1	5
58	Hamiltonian and Lagrangian Dynamical Matrix Approaches Applied to Magnetic Nanostructures. <i>Advances in Condensed Matter Physics</i> , 2012, 2012, 1-16.	1.1	5
59	Removing numerical instabilities in the Preisach model identification using genetic algorithms. <i>Physica B: Condensed Matter</i> , 2006, 372, 91-96.	2.7	4
60	A genetic approach to solve numerical problems in the Preisach model identification. <i>IEEE Transactions on Magnetics</i> , 2006, 42, 1526-1537.	2.1	4
61	Magnetization dynamics in CoFe \hat{a} •AlO/Permalloy and CoFe \hat{a} •MgO/Permalloy magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2007, 101, 09A508.	2.5	4
62	Excitation of magnetic normal modes by spin-torque: a Lagrangian approach. <i>Journal of Applied Physics</i> , 2012, 111, 07C916.	2.5	4
63	Quantitative estimation of the spin-wave features supported by a spin-torque-driven magnetic waveguide. <i>Journal of Applied Physics</i> , 2014, 116, 213908.	2.5	4
64	Spin-Transfer Torque Switching in Magnetic Multilayers. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 1677-1680.	2.1	3
65	A Theoretical Study on the Amplitude Symmetry of Sidebands in Nonlinear Modulators. <i>IEEE Transactions on Magnetics</i> , 2012, 48, 4786-4792.	2.1	3
66	Onset of linear instability driven by electric currents in magnetic systems: a Lagrangian approach. <i>Ricerche Di Matematica</i> , 2016, 65, 413-422.	1.0	3
67	Spin-wave excitation by spin-polarized current in magnetic nanostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 2391-2395.	0.8	2
68	On the Travelling Wave Solution for the Current-Driven Steady Domain Wall Motion in Magnetic Nanostrips under the Influence of Rashba Field. <i>Advances in Condensed Matter Physics</i> , 2012, 2012, 1-8.	1.1	2
69	Remarks about a fuzzy approach to model scalar hysteresis. <i>Journal of Applied Physics</i> , 2005, 97, 10E507.	2.5	1
70	Numerical study of the magnetization reversal driven by spin-polarized current in MgO-based magnetic tunnel junctions. <i>Physica B: Condensed Matter</i> , 2008, 403, 364-367.	2.7	1
71	Optimized Voltage-Induced Control of Magnetic Domain-Wall Propagation in Hybrid Piezoelectric/Magnetostrictive Devices. <i>Actuators</i> , 2021, 10, 134.	2.3	1
72	Postmortem Electrical Conductivity Changes of <i>Dicentrarchus labrax</i> Skeletal Muscle: Root Mean Square (RMS) Parameter in Estimating Time since Death. <i>Animals</i> , 2022, 12, 1062.	2.3	1

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73	Spin-transfer torque switching in magnetic multilayers. , 0, , .		0
74	Magnetic vortex driven by non-uniform injection of spin-polarized current in nano-scale spin valves. Journal of Magnetism and Magnetic Materials, 2009, 321, 602-606.	2.3	0
75	Low-Dimensional Magnetic Systems. Advances in Condensed Matter Physics, 2012, 2012, 1-1.	1.1	0
76	Spin-transfer-driven spin-waves excitation in a finite-size magnetic waveguide. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 1161-1168.	2.1	0