

Federico Montoncello

List of Publications by Year in descending order

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papers

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citations

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38
g-index

58
all docs

58
docs citations

58
times ranked

1002
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin excitations of nanometric cylindrical dots in vortex and saturated magnetic states. Physical Review B, 2004, 70, .	3.2	144
2	Magnetic normal modes in ferromagnetic nanoparticles: A dynamical matrix approach. Physical Review B, 2004, 70, .	3.2	118
3	Band Diagram of Spin Waves in a Two-Dimensional Magnonic Crystal. Physical Review Letters, 2011, 107, 127204.	7.8	93
4	Spin dynamics in thin nanometric elliptical Permalloy dots: A Brillouin light scattering investigation as a function of dot eccentricity. Physical Review B, 2005, 72, .	3.2	90
5	Effect of interdot coupling on spin-wave modes in nanoparticle arrays. Physical Review B, 2007, 75, .	3.2	88
6	Near-infrared photoluminescence in titania: Evidence for phonon-replica effect. Journal of Applied Physics, 2003, 94, 1501-1505.	2.5	87
7	Bragg diffraction of spin waves from a two-dimensional antidot lattice. Physical Review B, 2012, 85, .	3.2	71
8	Tunable short-wavelength spin wave excitation from pinned magnetic domain walls. Scientific Reports, 2016, 6, 21330.	3.3	63
9	Collective spin modes in chains of dipolarly interacting rectangular magnetic dots. Physical Review B, 2011, 83, .	3.2	59
10	Magnetization reversal and soft modes in nanorings: Transitions between onion and vortex states studied by Brillouin light scattering. Physical Review B, 2008, 78, .	3.2	58
11	Soft spin waves and magnetization reversal in elliptical Permalloy nanodots: Experiments and dynamical matrix results. Physical Review B, 2007, 76, .	3.2	52
12	Splitting of Spin Excitations in Nanometric Rings Induced by a Magnetic Field. Physical Review Letters, 2006, 97, 247203.	7.8	48
13	Dynamic origin of first and second order phase transitions in magnetization reversal of elliptical nanodots. Physical Review B, 2008, 77, .	3.2	31
14	Mutual influence between macrospin reversal order and spin-wave dynamics in isolated artificial spin-ice vertices. Physical Review B, 2018, 97, .	3.2	30
15	Asymmetry of spin wave dispersions in a hexagonal magnonic crystal. Applied Physics Letters, 2013, 102, .	3.3	27
16	Calculation of high-frequency permeability of magnonic metamaterials beyond the macrospin approximation. Physical Review B, 2012, 86, .	3.2	26
17	Magnetodynamical response of large-area close-packed arrays of circular dots fabricated by nanosphere lithography. Physical Review B, 2013, 87, .	3.2	23
18	Influence of the Vertex Region on Spin Dynamics in Artificial Kagome Spin Ice. Physical Review Applied, 2020, 14, .	3.8	22

#	ARTICLE	IF	CITATIONS
19	Spin mode calculations in nanometric magnetic rings: Localization effects in the vortex and saturated states. <i>Journal of Applied Physics</i> , 2008, 103, 083910.	2.5	20
20	Angle-resolved spin wave band diagrams of square antidot lattices studied by Brillouin light scattering. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	19
21	Angular-dependent spin dynamics of a triad of permalloy macrospins. <i>Physical Review B</i> , 2019, 99, .	3.2	19
22	Vortex mode dynamics and bandwidth tunability in a two-dimensional array of interacting magnetic disks. <i>Applied Physics Letters</i> , 2012, 100, 182406.	3.3	18
23	Bandwidth broadening and asymmetric softening of collective spin waves in magnonic crystals. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	18
24	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
25	Effect of Interdot Separation on Collective Magnonic Modes in Chains of Rectangular Dots. <i>IEEE Transactions on Magnetics</i> , 2011, 47, 1563-1566.	2.1	17
26	Ferromagnetic resonance spectra of permalloy nano-ellipses as building blocks for complex magnonic lattices. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	16
27	Soft spin modes and magnetic transitions in trilayered nanodisks in the vortex state. <i>Journal of Applied Physics</i> , 2009, 105, 07E304.	2.5	15
28	Spin modes of triangular magnetic nanodots in the vortex, Y, and buckle states. <i>Journal of Applied Physics</i> , 2010, 107, 023906.	2.5	14
29	Dynamic origin of segment magnetization reversal in thin-film Penrose tilings. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 423, 158-163.	2.3	14
30	Collective spin waves in arrays of permalloy nanowires with single-side periodically modulated width. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	13
31	Magnetic Hysteresis in Nanocomposite Films Consisting of a Ferromagnetic AuCo Alloy and Ultrafine Co Particles. <i>Materials</i> , 2017, 10, 717.	2.9	12
32	Role of boundaries in micromagnetic calculations of magnonic spectra of arrays of magnetic nanoelements. <i>Physical Review B</i> , 2013, 87, .	3.2	11
33	Magnetic normal modes in nano-particles. <i>Physica B: Condensed Matter</i> , 2004, 354, 266-270.	2.7	10
34	Experimental Evidence of Field-Induced Localization of Spin Excitations in NiFe Elliptical Rings by Micro-Focused Brillouin Light Scattering. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 1531-1536.	2.1	10
35	Magnetization dynamics of a Fibonacci-distorted kagome artificial spin ice. <i>Physical Review B</i> , 2020, 102, .	3.2	9
36	A continuous excitation approach to determine time-dependent dispersion diagrams in 2D magnonic crystals. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 315002.	2.8	8

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37	Spin wave dispersion and intensity correlation in width-modulated nanowire arrays: A Brillouin light scattering study. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	8
38	Spin excitations in nanometric magnetic dots: calculations and comparison with light scattering measurements. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 225008.	1.8	7
39	Spin Modes in Elliptical Nanorings in the Vortex State: Two-Dimensional Mapping by Micro-Focused Brillouin Light Scattering. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 199-202.	2.1	7
40	Spin wave localization and softening in rod-shaped magnonic crystals with different terminations. <i>Journal of Applied Physics</i> , 2012, 112, 033911.	2.5	7
41	Coupled macrospins: Mode dynamics in symmetric and asymmetric vertices. <i>AIP Advances</i> , 2018, 8, 056020.	1.3	6
42	Observation of azimuthal ferromagnetic resonance modes in 1.0 μ m diameter Permalloy rings. <i>Journal of Applied Physics</i> , 2006, 99, 08F307.	2.5	5
43	Magnetic normal modes of elliptical NiFe nanoring studied by micro-focused Brillouin light scattering. <i>Journal of Physics: Conference Series</i> , 2010, 200, 042008.	0.4	5
44	Spin Wave Band Structure in Two-Dimensional Magnonic Crystals. <i>Topics in Applied Physics</i> , 2013, , 205-221.	0.8	5
45	Spin wave propagation properties across configurational antiferro/ferro-magnetic transitions. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	5
46	Controlling the three dimensional propagation of spin waves in continuous ferromagnetic films with an increasing out of plane undulation. <i>Scientific Reports</i> , 2021, 11, 21344.	3.3	4
47	Dual Band Magnonic Crystals: Model System and Basic Spin Wave Dynamics. <i>Advances in Materials Science and Engineering</i> , 2016, 2016, 1-7.	1.8	3
48	Magnetic properties of rectangular permalloy prisms: a combined magnetic force microscopy and magneto-optic Kerr study. <i>Surface Science</i> , 2004, 566-568, 291-296.	1.9	2
49	Comment on "Mapping of localized spin-wave excitations by near-field Brillouin light scattering" [Appl. Phys. Lett. 97, 152502 (2010)]. <i>Applied Physics Letters</i> , 2011, 99, 186101.	3.3	2
50	Ferromagnetic resonance in single vertices and 2D lattices macro-dipoles of elongated nanoelements: measurements and simulations. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 065803.	1.8	2
51	Thickness dependence of spin wave dynamics in three-fold nano-ellipse clusters. <i>AIP Advances</i> , 2018, 8, 101502.	1.3	1
52	Magnetic Normal Mode Calculations in Big Systems: A Highly Scalable Dynamical Matrix Approach Applied to a Fibonacci-Distorted Artificial Spin Ice. <i>Magnetochemistry</i> , 2021, 7, 34.	2.4	1
53	10.1063/1.4710549.1. , 2012, , .		1
54	Spin modes in a tangentially magnetized elliptical dot. , 0, , .		0

#	ARTICLE	IF	CITATIONS
55	Macrospin reversals and spin wave softening in isolated nodes of Kagome-like structures: Statics and dynamics. , 2017, , .		0
56	Design and basic spin wave dynamics of a dual band magnonic crystal. , 2017, , .		0