

André Thiaville

List of Publications by Year in descending order

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96
papers

10,892
citations

81900

39
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58581

82
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97
all docs

97
docs citations

97
times ranked

6254
citing authors

#	ARTICLE	IF	CITATIONS
1	Nucleation, stability and current-induced motion of isolated magnetic skyrmions in nanostructures. Nature Nanotechnology, 2013, 8, 839-844.	31.5	1,387
2	Micromagnetic understanding of current-driven domain wall motion in patterned nanowires. Europhysics Letters, 2005, 69, 990-996.	2.0	988
3	Current-induced spin-orbit torques in ferromagnetic and antiferromagnetic systems. Reviews of Modern Physics, 2019, 91, .	45.6	899
4	Dynamics of Dzyaloshinskii domain walls in ultrathin magnetic films. Europhysics Letters, 2012, 100, 57002.	2.0	880
5	Skyrmion confinement in ultrathin film nanostructures in the presence of Dzyaloshinskii-Moriya interaction. Physical Review B, 2013, 88, .	3.2	767
6	Interface-induced phenomena in magnetism. Reviews of Modern Physics, 2017, 89, .	45.6	672
7	Anatomy of Dzyaloshinskii-Moriya Interaction at $\text{Pt}/\text{Co}/\text{Pt}$ Interfaces. Physical Review Letters, 2015, 115, 267210.	7.8	507
8	Electrical switching of the vortex core in a magnetic disk. Nature Materials, 2007, 6, 270-273.	27.5	464
9	Faster magnetic walls in rough wires. Nature Materials, 2003, 2, 521-523.	27.5	348
10	Head-to-head domain walls in soft nano-strips: a refined phase diagram. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 750-753.	2.3	315
11	Interfacial Dzyaloshinskii-Moriya interaction in perpendicularly magnetized $\text{Pt}/\text{Co}/\text{AlO}_x$ films measured by Brillouin light spectroscopy. Physical Review B, 2015, 91, .	7.8	268
12	Micromagnetic study of Bloch-point-mediated vortex core reversal. Physical Review B, 2003, 67, .	3.2	213
13	Fluctuation effects near H_{c2} in type-II superconductors. Physical Review B, 1985, 31, 7124-7132.	3.2	211
14	Domain Wall Tilting in the Presence of the Dzyaloshinskii-Moriya Interaction in Out-of-Plane Magnetized Magnetic Nanotracks. Physical Review Letters, 2013, 111, 217203.	7.8	192
15	The nature of domain walls in ultrathin ferromagnets revealed by scanning nanomagnetometry. Nature Communications, 2015, 6, 6733.	12.8	183
16	Domain wall motion by spin-polarized current: a micromagnetic study. Journal of Applied Physics, 2004, 95, 7049-7051.	2.5	181
17	Chirality-Induced Asymmetric Magnetic Nucleation in $\text{Pt}/\text{Co}/\text{Pt}$ Microstructures. Physical Review Letters, 2014, 113, 047203.	7.8	157
18	Domain wall dynamics in nanowires. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 1061-1063.	2.3	135

#	ARTICLE	IF	CITATIONS
19	Path to collapse for an isolated Néel skyrmion. Physical Review B, 2016, 93, .	3.2	127
20	Coherent rotation of magnetization in three dimensions: A geometrical approach. Physical Review B, 2000, 61, 12221-12232.	3.2	91
21	Extensions of the geometric solution of the two dimensional coherent magnetization rotation model. Journal of Magnetism and Magnetic Materials, 1998, 182, 5-18.	2.3	87
22	Three-Dimensional Magnetization Reversal Measurements in Nanoparticles. Physical Review Letters, 1999, 83, 4188-4191.	7.8	80
23	Domain-Wall Dynamics in Nanowires and Nanostrips. , 0, , 161-205.		75
24	Very large domain wall velocities in Pt/Co/GdOx and Pt/Co/Gd trilayers with Dzyaloshinskii-Moriya interaction. Europhysics Letters, 2016, 113, 67001.	2.0	75
25	Measurement of the stray field emanating from magnetic force microscope tips by Hall effect microsensors. Journal of Applied Physics, 1997, 82, 3182-3191.	2.5	74
26	MAGNETISM: Small Is Beautiful. Science, 1999, 284, 1939-1940.	12.6	73
27	Direct measurement of interfacial Dzyaloshinskii-Moriya interaction in $X $ with a scanning NV magnetometer		

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37	Spin transfer torque in continuous textures: Semiclassical Boltzmann approach. Physical Review B, 2007, 75, .	3.2	47
38	An Introduction to Micromagnetics in the Dynamic Regime. , 2002, , 1-33.		46
39	Domain wall dynamics in ultrathin Pt/Co/AlOx microstrips under large combined magnetic fields. Physical Review B, 2016, 93, .	3.2	44
40	A magnetic force microscopy analysis of soft thin film elements. IEEE Transactions on Magnetics, 1994, 30, 4473-4478.	2.1	42
41	Transient domain wall displacement under spin-polarized current pulses. European Physical Journal B, 2007, 60, 15-27.	1.5	40
42	On the influence of wall microdeformations on Bloch line visibility in bubble garnets (invited). Journal of Applied Physics, 1991, 69, 6090-6095.	2.5	39
43	Domain Wall Dynamics under Nonlocal Spin-Transfer Torque. Physical Review Letters, 2012, 108, 227208.	7.8	39
44	Investigating the role of superdiffusive currents in laser induced demagnetization of ferromagnets with nanoscale magnetic domains. Scientific Reports, 2014, 4, 4658.	3.3	38
45	Velocity Enhancement by Synchronization of Magnetic Domain Walls. Physical Review Letters, 2018, 120, 227204.	7.8	35
46	Influence of Instabilities on High-Field Magnetic Domain Wall Velocity in (Co/Ni) Nanostrips. Applied Physics Express, 2011, 4, 113001.	2.4	31
47	On Corner Singularities in Micromagnetics. Physica Status Solidi A, 1998, 170, 125-135.	1.7	28
48	Current-Induced Nucleation and Dynamics of Skyrmions in a Co -based Heusler Alloy. Physical Review Applied, 2019, 11, .	3.8	26
49	Nucleation and dynamics of magnetic vortices under spin-polarized current. Physical Review B, 2008, 77, .	3.2	24
50	Néel lines in the Bloch walls of bubble garnets and their dark-field observation. Journal of Applied Physics, 1990, 68, 2883-2891.	2.5	23
51	Horizontal Bloch lines and anisotropic-dark-field observations. Physical Review B, 1994, 49, 6678-6688.	3.2	23
52	Limits of the macrospin model in cobalt nanodots with enhanced edge magnetic anisotropy. Physical Review B, 2007, 76, .	3.2	23
53	Spin-Orbit Coupling in Single-Layer Ferrimagnets: Direct Observation of Spin-Orbit Torques and Chiral Spin Textures. Physical Review Applied, 2021, 16, .	3.8	23
54	First direct optical observation of Bloch lines in bubble garnets. IEEE Transactions on Magnetics, 1988, 24, 1722-1724.	2.1	22

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55	Self-consistency based control scheme for magnetization dynamics. Journal of Applied Physics, 2001, 89, 6719-6721.	2.5	22
56	Making the Dzyaloshinskii-Moriya interaction visible. Applied Physics Letters, 2017, 110, .	3.3	19
57	MAGNETISM: Magnets Fast and Small. Science, 2000, 290, 466-467.	12.6	17
58	Study of the velocity plateau of Dzyaloshinskii domain walls. Physical Review B, 2019, 100, .	3.2	14
59	Electrical rectification effect in single domain magnetic microstrips: A micromagnetics-based analysis. Journal of Applied Physics, 2008, 104, 093701.	2.5	13
60	Magnetization textures in NiPd nanostructures. Physical Review B, 2011, 84, .	3.2	12
61	Controlled Injection of a Singular Point along a Linear Magnetic Structure. Europhysics Letters, 1994, 26, 57-62.	2.0	11
62	Thermally activated switching of nanoparticles: a numerical study. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1237-E1238.	2.3	11
63	Magnetic domain wall dynamics in the precessional regime: Influence of the Dzyaloshinskii-Moriya interaction. Physical Review B, 2021, 104, .	3.2	11
64	Interfacial potential gradient modulates Dzyaloshinskii-Moriya interaction in Pt/Co/metal multilayers. Physical Review Materials, 2022, 6, .	2.4	11
65	Rigorous micromagnetic computation of configurational anisotropy energies in nanoelements. Journal of Applied Physics, 2003, 93, 7891-7893.	2.5	10
66	Comparison of Langevin dynamics and direct energy barrier computation. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 747-749.	2.3	10
67	Magnetization dynamics of soft films with thickness-dependent anisotropy. Physical Review B, 2009, 80, .	3.2	10
68	Nitrogen-vacancy-center imaging of bubble domains in a 6-Å... film of cobalt with perpendicular magnetization. Journal of Applied Physics, 2014, 115, .	2.5	10
69	Spatial extent of the Dzyaloshinskii-Moriya interaction at metallic interfaces. Physical Review Materials, 2022, 6, .	2.4	10
70	Reply to 'Comment on 'Path to collapse for an isolated Néel skyrmion'' Physical Review B, 2017, 95, .	3.2	9
71	Analytical calculation and observation of the magnetic contrast in magneto-optical studies of magnetic cylinders. Physical Review B, 2017, 96, .	3.2	9
72	Strength and length scale of the interaction between domain walls and pinning disorder in thin ferromagnetic films. Physical Review Research, 2020, 2, .	3.6	9

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73	Experimenting with Bloch points in bubble garnets. Journal of Magnetism and Magnetic Materials, 1992, 104-107, 335-336.	2.3	8
74	Sum rule for the magnetic permeability of arbitrary textures. Physical Review B, 2012, 86, .	3.2	8
75	The role of uniaxial magnetic anisotropy distribution on domain wall tilting in amorphous glass-coated microwires. Journal of Applied Physics, 2020, 127, .	2.5	8
76	Transverse wall dynamics in a spin valve nanostrip. Journal of Applied Physics, 2009, 105, .	2.5	7
77	Micromagnetics of Domain-Wall Dynamics in Soft Nanostrips. , 2009, , 231-276.		7
78	Conical bubbles. Journal of Magnetism and Magnetic Materials, 1993, 124, 355-367.	2.3	6
79	Current distribution in metallic multilayers from resistance measurements. Physical Review B, 2020, 101, .	3.2	6
80	Topology and Magnetic Domain Walls. Springer Series in Solid-state Sciences, 2018, , 41-73.	0.3	4
81	Direct optical observation of vertical Bloch lines in bubble garnets: new experimental evidences. IEEE Transactions on Magnetics, 1990, 26, 1530-1532.	2.1	3
82	Micromagnetics: Dynamical Aspects. Lecture Notes in Physics, 2001, , 129-156.	0.7	3
83	Domain wall propagation by spin-orbit torques in in-plane magnetized systems. Physical Review B, 2020, 102, .	3.2	3
84	Quantitative analysis of spin wave dynamics in ferrimagnets across compensation points. Physical Review B, 2022, 105, .	3.2	3
85	Imaging the Surface Domain Structure of Amorphous Glass-Coated Microwires by Bitter Colloid. Acta Physica Polonica A, 2014, 126, 72-73.	0.5	2
86	Magnetism and topology. , 2021, , 1-30.		2
87	Magnetic Force Imaging Of Soft Materials. , 0, , .		1
88	Magnetic Force Microscopy. , 2001, , 4772-4780.		1
89	Direct optical observation of vertical bloch lines in bubble garnets: New experimental evidences. , 1990, , .		0
90	Bloch point mediated vortex switching. , 0, , .		0

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91	Spin wave instability by spin-polarized current injection. , 2005, , .		0
92	Micromagnetics of Domain Wall Dynamics in Soft Nanostrips. , 2014, , 261-313.		0
93	Chiral magnetic domain walls under transverse fields: A semi-analytical model. Journal of Magnetism and Magnetic Materials, 2021, 530, 167916.	2.3	0
94	Implementation of a self-consistent method using micromagnetics and semiclassical transport theory for studying the Spin Transfer Torque effect. Proceedings of SPIE, 2011, , .	0.8	0
95	Bloch-Line Storage Potential. , 1993, , 7-17.		0
96	Lattice-compliant simulations of antiferromagnetic textures and their response to spin-orbit torques. Physical Review B, 2022, 105, .	3.2	0