

Eduardo Martinez

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8598562/publications.pdf>

Version: 2024-02-01

114
papers

4,838
citations

172457

29
h-index

95266

68
g-index

117
all docs

117
docs citations

117
times ranked

3587
citing authors

#	ARTICLE	IF	CITATIONS
1	Realistic micromagnetic description of all-optical ultrafast switching processes in ferrimagnetic alloys. <i>Physical Review B</i> , 2022, 105, .	3.2	6
2	Asynchronous current-induced switching of rare-earth and transition-metal sublattices in ferrimagnetic alloys. <i>Nature Materials</i> , 2022, 21, 640-646.	27.5	19
3	Electric Field Control of the Skyrmion Hall Effect in Piezoelectric-Magnetic Devices. <i>Physical Review Applied</i> , 2021, 16, .	3.8	15
4	Current-Driven Domain Wall Motion in Curved Ferrimagnetic Strips Above and Below the Angular Momentum Compensation. <i>Frontiers in Physics</i> , 2021, 9, .	2.1	1
5	Current driven domain wall dynamics in ferrimagnetic strips explained by means of a two interacting sublattices model. <i>AIP Advances</i> , 2020, 10, 015202.	1.3	5
6	Helical surface magnetization in nanowires: the role of chirality. <i>Nanoscale</i> , 2020, 12, 17880-17885.	5.6	12
7	Micromagnetic Modeling of All Optical Switching of Ferromagnetic Thin Films: The Role of Inverse Faraday Effect and Magnetic Circular Dichroism. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1307.	2.5	3
8	Current-induced dynamics of chiral domain walls in magnetic heterostructures. , 2020, , 297-324.		0
9	Joule heating and its role in current-assisted domain wall depinning in nanostrips. , 2020, , 325-360.		1
10	Novel interpretation of recent experiments on the dynamics of domain walls along ferrimagnetic strips. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 465803.	1.8	2
11	Current-driven domain wall dynamics in ferrimagnets: Micromagnetic approach and collective coordinates model. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 491, 165545.	2.3	18
12	Controlling All-Optical Helicity-Dependent Switching in Engineered Rare-Earth Free Synthetic Ferrimagnets. <i>Advanced Science</i> , 2019, 6, 1901876.	11.2	15
13	Controlled Current-Driven Bi-Directional Motion of Trains of Domain Walls Along a Ferromagnetic Strip. <i>IEEE Transactions on Magnetics</i> , 2019, 55, 1-4.	2.1	0
14	Nonvolatile Ionic Modification of the Dzyaloshinskii-Moriya Interaction. <i>Physical Review Applied</i> , 2019, 12, .	3.8	59
15	Skyrmion motion induced by voltage-controlled in-plane strain gradients. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	40
16	Current-Driven Skyrmion Dynamics Along Curved Tracks. <i>IEEE Transactions on Magnetics</i> , 2019, 55, 1-8.	2.1	3
17	Tuning spin-orbit torques at magnetic domain walls in epitaxial Pt/Co/Pt ₁ Au _x trilayers. <i>Nanotechnology</i> , 2019, 30, 234003.	2.6	15
18	Deterministic and time resolved thermo-magnetic switching in a nickel nanowire. <i>Scientific Reports</i> , 2019, 9, 17339.	3.3	11

#	ARTICLE	IF	CITATIONS
19	Micromagnetic Modeling of All-Optical Switching. IEEE Transactions on Magnetics, 2019, 55, 1-6.	2.1	1
20	Current-driven domain wall dynamics in ferromagnetic layers synthetically exchange-coupled by a spacer: A micromagnetic study. Journal of Applied Physics, 2018, 123, .	2.5	18
21	Current-driven domain wall motion based memory devices: Application to a ratchet ferromagnetic strip. AIP Advances, 2018, 8, 047302.	1.3	3
22	Magnetic properties and field-driven dynamics of chiral domain walls in epitaxial $\text{Pt}/\text{Co}/\text{Pt}$ trilayers. Physical Review B, 2018, 98, .	1.2	22
23	Modification of Dzyaloshinskii-Moriya-Interaction-Stabilized Domain Wall Chirality by Driving Currents. Physical Review Letters, 2018, 121, 147203.	7.8	35
24	Collective coordinate descriptions of magnetic domain wall motion in perpendicularly magnetized nanostructures under the application of in-plane fields. Journal of Magnetism and Magnetic Materials, 2018, 468, 25-43.	2.3	13
25	Current-driven domain wall motion along ferromagnetic strips with periodically-modulated perpendicular anisotropy. Journal of Applied Physics, 2018, 123, .	2.5	4
26	Micromagnetic analysis of geometrically controlled current-driven magnetization switching. AIP Advances, 2017, 7, 055909.	1.3	0
27	Current-Induced Generation and Synchronous Motion of Highly Packed Coupled Chiral Domain Walls. Nano Letters, 2017, 17, 1814-1818.	9.1	16
28	Chiral-triggered magnetization switching in patterned media. Applied Physics Letters, 2017, 110, 072407.	3.3	2
29	Domain wall motion by localized temperature gradients. Physical Review B, 2017, 95, .	3.2	35
30	Current-driven skyrmion motion along disordered magnetic tracks. AIP Advances, 2017, 7, 056017.	1.3	12
31	Pinned domain wall oscillator as a tuneable direct current spin wave emitter. Scientific Reports, 2017, 7, 13559.	3.3	26
32	Dynamical depinning of chiral domain walls. Physical Review B, 2017, 96, .	3.2	17
33	Performance of synthetic antiferromagnetic racetrack memory: domain wall versus skyrmion. Journal Physics D: Applied Physics, 2017, 50, 325302.	2.8	86
34	Efficient and controlled domain wall nucleation for magnetic shift registers. Scientific Reports, 2017, 7, 11909.	3.3	24
35	Ferromagnetic layer thickness dependence of the Dzyaloshinskii-Moriya interaction and spin-orbit torques in PtCoAlO . AIP Advances, 2017, 7, .	1.3	24
36	Steady-state configurations of Dzyaloshinskii domain walls driven by field and current. Journal of Magnetism and Magnetic Materials, 2017, 423, 405-410.	2.3	1

#	ARTICLE	IF	CITATIONS
55	Domain Wall Dynamics in Asymmetric Stacks: The Roles of Rashba Field and the Spin Hall Effect. IEEE Transactions on Magnetics, 2013, 49, 3105-3108.	2.1	10
56	Intrinsic and Thermal Linewidths of Spin-Transfer-Driven Vortex Self-Oscillations. IEEE Transactions on Magnetics, 2013, 49, 3203-3206.	2.1	0
57	The Role of the Oersted Field on the Current-Driven Domain Wall Dynamics Along Wires With Square Cross Section. IEEE Transactions on Magnetics, 2013, 49, 3211-3214.	2.1	3
58	Current-driven dynamics of chiral ferromagnetic domain walls. Nature Materials, 2013, 12, 611-616.	27.5	1,550
59	Switching of a single ferromagnetic layer driven by spin Hall effect. Applied Physics Letters, 2013, 102, .	3.3	77
60	The influence of the spin-orbit torques on the current-driven domain wall motion. AIP Advances, 2013, 3, .	1.3	12
61	The stochastic nature of the domain wall motion along high perpendicular anisotropy strips with surface roughness. Journal of Physics Condensed Matter, 2012, 24, 024206.	1.8	54
62	Micromagnetic analysis of the magnetization dynamics driven by the Oersted field in permalloy nanorings. Journal of Applied Physics, 2012, 111, 07D103.	2.5	0
63	Micromagnetic analysis of the Rashba field on current-induced domain wall propagation. Journal of Applied Physics, 2012, 111, .	2.5	15
64	Micromagnetic simulations using Graphics Processing Units. Journal Physics D: Applied Physics, 2012, 45, 323001.	2.8	117
65	Mathematical modeling and numerical simulation of domain wall motion in magnetic nanostrips with crystallographic defects. Applied Mathematical Modelling, 2012, 36, 4876-4886.	4.2	26
66	Micromagnetic analysis of current-driven DW dynamics along rough strips with high perpendicular anisotropy at room temperature. Journal of Magnetism and Magnetic Materials, 2012, 324, 3542-3547.	2.3	5
67	The influence of the Rashba field on the current-induced domain wall dynamics: A full micromagnetic analysis, including surface roughness and thermal effects. Journal of Applied Physics, 2012, 111, .	2.5	17
68	The effect of dry friction on domain wall dynamics: A micromagnetic study. Journal of Applied Physics, 2012, 111, .	2.5	8
69	Interaction between propagating spin waves and domain walls on a ferromagnetic nanowire. Physical Review B, 2012, 85, .	3.2	61
70	Static Properties and Current-Driven Dynamics of Domain Walls in Perpendicular Magnetocrystalline Anisotropy Nanostrips with Rectangular Cross-Section. Advances in Condensed Matter Physics, 2012, 1-21.	1.1	12
71	Low-Dimensional Magnetic Systems. Advances in Condensed Matter Physics, 2012, 2012, 1-1.	1.1	0
72	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

#	ARTICLE	IF	CITATIONS
73	High frequency spin-torque-oscillators with reduced perpendicular torque effect based on asymmetric vortex polarizer. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	37
74	Oscillator based on pinned domain walls driven by direct current. <i>Physical Review B</i> , 2011, 83, .	3.2	42
75	Structural characterization of magnetic nanostripes by fast domain wall injection. <i>Physical Review B</i> , 2011, 83, .	3.2	14
76	Stochastic resonance of a domain wall in a stripe with two pinning sites. <i>Applied Physics Letters</i> , 2011, 98, 072507.	3.3	14
77	Micromagnetic simulations of domain wall depinning forced by oscillating fields. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 501-504.	2.3	2
78	Effective Damping Contribution From Micromagnetic Modeling in a Spin-Transfer-Driven Ferromagnetic Resonance. <i>IEEE Nanotechnology Magazine</i> , 2009, 8, 477-481.	2.0	5
79	Domain-wall dynamics driven by short pulses along thin ferromagnetic strips: Micromagnetic simulations and analytical description. <i>Physical Review B</i> , 2009, 79, .	3.2	39
80	Thermally activated domain wall depinning in thin strips with high perpendicular magnetocrystalline anisotropy. <i>Journal of Applied Physics</i> , 2009, 106, 043914.	2.5	26
81	Micromagnetic study of spin-transfer driven ferromagnetic resonance: Equivalent circuit. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	2
82	Temperature Dependence of Microwave Nano-Oscillator Linewidths Driven by Spin-Polarized Currents: A Micromagnetic Analysis. <i>IEEE Transactions on Magnetics</i> , 2009, 45, 3426-3429.	2.1	5
83	Resonant domain wall depinning induced by oscillating spin-polarized currents in thin ferromagnetic strips. <i>Physical Review B</i> , 2008, 77, .	3.2	35
84	Micromagnetic modal analysis of spin-transfer-driven ferromagnetic resonance of individual nanomagnets. <i>Journal of Applied Physics</i> , 2007, 101, 09A502.	2.5	22
85	Reversible and irreversible current induced domain wall motion in CoFeB based spin valves stripes. <i>Applied Physics Letters</i> , 2007, 90, 232505.	3.3	32
86	Coupling of spin-transfer torque to microwave magnetic field: A micromagnetic modal analysis. <i>Journal of Applied Physics</i> , 2007, 101, 053914.	2.5	31
87	Minimizing cell size dependence in micromagnetics simulations with thermal noise. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 942-948.	2.8	22
88	Thermal Effects on Domain Wall Depinning from a Single Notch. <i>Physical Review Letters</i> , 2007, 98, 267202.	7.8	58
89	Thermal effects in domain wall motion: Micromagnetic simulations and analytical model. <i>Physical Review B</i> , 2007, 75, .	3.2	93
90	A micromagnetic study of the oscillations of pinned domain walls in magnetic ribbons. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 316, e295-e298.	2.3	2

#	ARTICLE	IF	CITATIONS
91	Micromagnetic simulations with thermal noise: Physical and numerical aspects. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 316, 269-272.	2.3	7
92	Magnetization dynamics driven by the combined action of ac magnetic field and dc spin-polarized current. <i>Journal of Applied Physics</i> , 2006, 99, 08G507.	2.5	28
93	A comparison of spin-polarized current driven magnetization reversal in Co/Cu/Co magnetic multilayers. <i>Physica B: Condensed Matter</i> , 2006, 372, 294-298.	2.7	2
94	Thermal activation in Permalloy nanorectangles at room temperature. <i>Physica B: Condensed Matter</i> , 2006, 372, 286-289.	2.7	4
95	Influence of the magnetostatic coupling in magnetization switching driven by spin-polarized current. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006, 126, 190-193.	3.5	8
96	Micromagnetic simulations of nanosecond magnetization reversal processes in magnetic nanopillar. <i>Journal of Applied Physics</i> , 2006, 99, 08G522.	2.5	36
97	Nonphenomenological damping constant due to eddy current losses in uniformly magnetized samples. <i>Journal of Applied Physics</i> , 2006, 99, 123912.	2.5	9
98	Micromagnetic computations of spin polarized current-driven magnetization processes. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 286, 381-385.	2.3	52
99	Spin-polarized current-driven switching in permalloy nanostructures. <i>Journal of Applied Physics</i> , 2005, 97, 10E302.	2.5	21
100	Effect of the classical ampere field in micromagnetic computations of spin polarized current-driven magnetization processes. <i>Journal of Applied Physics</i> , 2005, 97, 10C713.	2.5	44
101	Computing Solenoidal Fields in Micromagnetic Simulations. <i>IEEE Transactions on Magnetics</i> , 2004, 40, 3240-3243.	2.1	9
102	On the interpretations of Langevin stochastic equation in different coordinate systems. <i>Physica B: Condensed Matter</i> , 2004, 343, 252-256.	2.7	14
103	About the inclusion of eddy currents in micromagnetic computations. <i>Physica B: Condensed Matter</i> , 2004, 343, 257-261.	2.7	13
104	Influence of Eddy Currents on Reversal Processes in Nanocubes Depending on Size. <i>IEEE Transactions on Magnetics</i> , 2004, 40, 2119-2121.	2.1	3
105	Micromagnetic dynamic computations including eddy currents. <i>IEEE Transactions on Magnetics</i> , 2003, 39, 2498-2500.	2.1	35
106	Temperature dependence of spontaneous magnetization using a continuous model. <i>IEEE Transactions on Magnetics</i> , 2003, 39, 2522-2524.	2.1	11
107	Dynamics and angular dependence of magnetization reversal in nanosquares. <i>Journal Physics D: Applied Physics</i> , 2003, 36, 1458-1463.	2.8	1
108	Configurational anisotropy and thermally activated switching in magnetic nanosquares. <i>Physica B: Condensed Matter</i> , 2001, 306, 216-220.	2.7	5

#	ARTICLE	IF	CITATIONS
109	Micromagnetic switching of patterned square magnetic nanostructures. Journal of Applied Physics, 2001, 89, 7585-7587.	2.5	14
110	Effect of thermal activation on the angular dependence of micromagnetic switching in nanosquares. , 0, , .		0
111	Computational study of low-field domain wall mobility in nanowires rectangular cross section. , 0, , .		0
112	Micromagnetic dynamic computations including eddy currents. , 0, , .		1
113	Temperature dependence of spontaneous magnetization using a continuous model. , 0, , .		0
114	A strategy for the design of skyrmion racetrack memories. , 0, .		1