Felipe Garcia-Sanchez

List of Publications by Year
in descending order

71 papers	4,363 citations	304368 22 h-index	106150 65 g-index
76 all docs	76 docs citations	76 times ranked	3659 citing authors

#	Article	IF	Citations
1	Realistic micromagnetic description of all-optical ultrafast switching processes in ferrimagnetic alloys. Physical Review B, 2022, 105, .	1.1	6
2	Logical and Physical Reversibility of Conservative Skyrmion Logic. IEEE Magnetics Letters, 2022, , 1-1.	0.6	1
3	Domain Wall Leaky Integrate-and-Fire Neurons With Shape-Based Configurable Activation Functions. IEEE Transactions on Electron Devices, 2022, 69, 2353-2359.	1.6	8
4	Energy efficiency challenges for all-spin logic. Microelectronics Journal, 2021, 110, 105008.	1.1	1
5	Skyrmion logic clocked via voltage-controlled magnetic anisotropy. Applied Physics Letters, 2021, 118, .	1.5	28
6	A Ti/Pt/Co Multilayer Stack for Transfer Function Based Magnetic Force Microscopy Calibrations. Magnetochemistry, 2021, 7, 78.	1.0	3
7	Electric Field Control of the Skyrmion Hall Effect in Piezoelectric-Magnetic Devices. Physical Review Applied, 2021, 16, .	1.5	15
8	Modal Frustration and Periodicity Breaking in Artificial Spin Ice. Small, 2020, 16, 2003141.	5.2	3
9	Large Damping-Like Spinâ€“Orbit Torque in a 2D Conductive 1T-TaS₂ Monolayer. Nano Letters, 2020, 20, 6372-6380.	4.5	31
10	CMOS-Free Magnetic Domain Wall Leaky Integrate-and-Fire Neurons with Intrinsic Lateral Inhibition. , 2020, , .		0
11	Dynamic Skyrmion-Mediated Switching of Perpendicular MTJs: Feasibility Analysis of Scaling to 20 nm With Thermal Noise. IEEE Transactions on Electron Devices, 2020, 67, 3883-3888.	1.6	9
12	Three Artificial Spintronic Leaky Integrate-and-Fire Neurons. Spin, 2020, 10, .	0.6	4
13	A comparison of two different mechanisms for deterministic spin orbit torque magnetization switching. Journal of Magnetism and Magnetic Materials, 2020, 508, 166700.	1.0	1
14	Micromagnetic Modeling of All Optical Switching of Ferromagnetic Thin Films: The Role of Inverse Faraday Effect and Magnetic Circular Dichroism. Applied Sciences (Switzerland), 2020, 10, 1307.	1.3	3
15	Skyrmion motion induced by voltage-controlled in-plane strain gradients. Applied Physics Letters, 2019, 115, .	1.5	40
16	Shape-Based Magnetic Domain Wall Drift for an Artificial Spintronic Leaky Integrate-and-Fire Neuron. IEEE Transactions on Electron Devices, 2019, 66, 4970-4975.	1.6	39
17	Graded-Anisotropy-Induced Magnetic Domain Wall Drift for an Artificial Spintronic Leaky Integrate-and-Fire Neuron. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2019, 5, 19-24.	1.1	30
18	Individual skyrmion manipulation by local magnetic field gradients. Communications Physics, 2019, 2, .	2.0	74

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19	Toggle Spin-Orbit Torque MRAM With Perpendicular Magnetic Anisotropy. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2019, 5, 166-172.	1.1	4
20	Skyrmion Logic System for Large-Scale Reversible Computation. Physical Review Applied, 2019, 12, .	1.5	70
21	Magnetic domain wall neuron with intrinsic leaking and lateral inhibition capability. , 2019, , .		0
22	Dynamics and morphology of chiral magnetic bubbles in perpendicularly magnetized ultra-thin films. Journal of Magnetism and Magnetic Materials, 2018, 456, 433-438.	1.0	3
23	Magnetic domain wall neuron with lateral inhibition. Journal of Applied Physics, 2018, 124, .	1.1	56
24	Nonreciprocal flexural dynamics of Dzyaloshinskii domain walls. Physical Review B, 2018, 98, .	1.1	1
25	Excitation and coherent control of magnetization dynamics in magnetic tunnel junctions using acoustic pulses. Applied Physics Letters, 2018, 113, .	1.5	8
26	Spin transfer torque nano-oscillators based on synthetic ferrimagnets: Influence of the exchange bias field and interlayer exchange coupling. Journal of Applied Physics, 2017, 121, .	1.1	10
27	Influence of interlayer coupling on the spin-torque-driven excitations in a spin-torque oscillator. Physical Review B, 2017, 95, .	1.1	5
28	Spin Waves on Spin Structures: Topology, Localization, and Nonreciprocity. , 2017, , 219-260.		2
29	Enhanced modulation rates via field modulation in spin torque nano-oscillators. Applied Physics Letters, 2016, 108, .	1.5	17
30	Spinâ€Wave Eigenmodes of Dzyaloshinskii Domain Walls. Advanced Electronic Materials, 2016, 2, 1500202.	2.6	21
31	Time-resolved spin-torque switching in MgO-based perpendicularly magnetized tunnel junctions. Physical Review B, 2016, 93, .	1.1	50
32	A skyrmion-based spin-torque nano-oscillator. New Journal of Physics, 2016, 18, 075011.	1.2	170
33	Narrow Magnonic Waveguides Based on Domain Walls. Physical Review Letters, 2015, 114, 247206.	2.9	150
34	Recent developments in the manipulation of magnetic domain walls in CoFeBâ€"MgO wires for applications to high-density nonvolatile memories. , 2015, , 333-378.		5
35	Non-linear mode interaction between spin torque driven and damped modes in spin torque nano-oscillators. Applied Physics Letters, 2015, 106, .	1.5	9
36	Current-driven asymmetric magnetization switching in perpendicularly magnetized CoFeB/MgO heterostructures. Physical Review B, 2015, 91, .	1.1	78

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37	Controlling magnetic domain wall motion in the creep regime in He+-irradiated CoFeB/MgO films with perpendicular anisotropy. Applied Physics Letters, 2015, 107, .	1.5	41
38	Modulation bandwidth of spin torque oscillators under current modulation. Applied Physics Letters, 2014, 105, 152401.	1.5	34
39	The design and verification of MuMax3. AIP Advances, 2014, 4, .	0.6	2,358
40	Measurement of magnetization using domain compressibility in CoFeB films with perpendicular anisotropy. Applied Physics Letters, 2014, 104, .	1.5	22
41	Breathing modes of confined skyrmions in ultrathin magnetic dots. Physical Review B, 2014, 90, .	1.1	140
42	Nonreciprocal spin-wave channeling along textures driven by the Dzyaloshinskii-Moriya interaction. Physical Review B, 2014, 89, .	1.1	94
43	Structure and magnetization in CoPd thin films and nanocontacts. Journal of Magnetism and Magnetic Materials, 2013, 325, 112-116.	1.0	6
44	Disentangling the Physical Contributions to the Electrical Resistance in Magnetic Domain Walls: A Multiscale Study. Physical Review Letters, 2012, 108, 077201.	2.9	15
45	Influence of thermal fluctuations on the emission linewidth in MgO-based spin transfer oscillators. Applied Physics Letters, 2012, 101, 062407.	1.5	20
46	Chiral symmetry breaking and pair-creation mediated Walker breakdown in magnetic nanotubes. Applied Physics Letters, 2012, 100, 252401.	1.5	77
47	Asymmetric domain wall depinning under current in spin valves with perpendicular anisotropy. Applied Physics Letters, 2011, 98, 232512.	1.5	4
48	Fast domain wall dynamics in magnetic nanotubes: Suppression of Walker breakdown and Cherenkov-like spin wave emission. Applied Physics Letters, 2011, 99, .	1.5	157
49	Depinning of Transverse Domain Walls from Notches in Magnetostatically Coupled Nanostrips. Applied Physics Express, 2011, 4, 033001.	1.1	10
50	Stochastic domain-wall depinning under current in FePt spin valves and single layers. Physical Review B, 2011, 84, .	1.1	9
51	Non-adiabatic spin-torques in narrow magnetic domain walls. Nature Physics, 2010, 6, 17-21.	6.5	194
52	Effect of crystalline defects on domain wall motion under field and current in nanowires with perpendicular magnetization. Physical Review B, 2010, 81, .	1.1	22
53	Control of magnetization reversal by combining shape and magnetocrystalline anisotropy in epitaxial Fe planar nanowires. Nanotechnology, 2010, 21, 255301.	1.3	18
54	Modeling of microwave-assisted switching in micron-sized magnetic ellipsoids. Physical Review B, 2009, 79, .	1.1	13

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55	Magnetization Reversal in Exchange-Coupled Composite Mediaâ€"Experiment and Modeling. IEEE Transactions on Magnetics, 2009, 45, 856-861.	1.2	4
56	Hysteresis in Fe particles with surface and magnetoelastic anisotropies: Experiment and micromagnetic modeling. Physica B: Condensed Matter, 2008, 403, 469-472.	1.3	2
57	Numerical evaluation of energy barriers in nano-sized magnetic elements with Lagrange multiplier technique. Physica B: Condensed Matter, 2008, 403, 330-333.	1.3	12
58	Switching and thermal stability properties of bilayer thin films: Single versus multigrain cases. Journal of Applied Physics, 2008, 103, 07F505.	1.1	11
59	Thermal coercivity mechanism in Fe nanoribbons and stripes. Applied Physics Letters, 2008, 93, 192508.	1.5	4
60	Coercivity mechanisms in lithographed antidot arrays. Europhysics Letters, 2008, 84, 67002.	0.7	16
61	Experimental and computational analysis of the angular dependence of the hysteresis processes in an antidots array. Journal of Applied Physics, 2006, 99, 08S503.	1.1	7
62	Multiscale modelling of hysteresis in FePt/FeRh bilayer. Physica B: Condensed Matter, 2006, 372, 328-331.	1.3	14
63	Multiscale models of hard-soft composite media. Journal of Magnetism and Magnetic Materials, 2006, 303, 282-286.	1.0	9
64	NONLINEAR ADIABATIC DYNAMICS OF SMALL FERROMAGNETIC PARTICLES. International Journal of Modern Physics B, 2006, 20, 5391-5404.	1.0	3
65	A micromagnetic study of the hysteretic behavior of antidot Fe films. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 149-152.	1.0	17
66	Magnetization reversal in textured Fe nanoparticles having different aspect ratios. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 479-481.	1.0	1
67	Reversible magnetization variations in large field ranges associated to periodic arrays of antidots. IEEE Transactions on Magnetics, 2005, 41, 3106-3108.	1.2	10
68	Multiscale versus micromagnetic calculations of the switching field reduction in FePtâˆ•FeRh bilayers with perpendicular exchange spring. Journal of Applied Physics, 2005, 97, 10J101.	1.1	14
69	Exchange spring structures and coercivity reduction in FePtâˆ•FeRh bilayers: A comparison of multiscale and micromagnetic calculations. Applied Physics Letters, 2005, 87, 122501.	1.5	46
70	Adiabatic dynamics of small ferromagnetic particles. Journal of Applied Physics, 2005, 97, 10A711.	1.1	1
71	Implementation of the â€œHyperdynamics of Infrequent Eventsâ€•Method for Acceleration of Thermal Switching Dynamics of Magnetic Moments. IEEE Transactions on Magnetics, 2004, 40, 2140-2142.	1.2	2