

Liliana D Buda-Prejbeanu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5317618/publications.pdf>

Version: 2024-02-01

105
papers

5,043
citations

136950

32
h-index

88630

70
g-index

106
all docs

106
docs citations

106
times ranked

4138
citing authors

#	ARTICLE	IF	CITATIONS
1	Real time investigation of double magnetic tunnel junction with a switchable assistance layer for high efficiency STT-MRAM. APL Materials, 2022, 10, .	5.1	3
2	Programmable Skyrmion Logic Gates Based on Skyrmion Tunneling. Physical Review Applied, 2022, 17, .	3.8	8
3	Robust and Programmable Logic-In-Memory Devices Exploiting Skyrmion Confinement and Channeling Using Local Energy Barriers. Physical Review Applied, 2022, 18, .	3.8	4
4	All-optical spin switching probability in [Tb/Co] multilayers. Scientific Reports, 2021, 11, 6576.	3.3	9
5	Helium Ions Put Magnetic Skyrmions on the Track. Nano Letters, 2021, 21, 2989-2996.	9.1	79
6	Route towards efficient magnetization reversal driven by voltage control of magnetic anisotropy. Scientific Reports, 2021, 11, 8801.	3.3	5
7	Spin Torque Efficiency Modulation in a Double-Barrier Magnetic Tunnel Junction with a Read/Write Mode Control Layer. ACS Applied Electronic Materials, 2021, 3, 2607-2613.	4.3	5
8	Perpendicular Magnetic Anisotropy Electric Field Modulation in Magnetron-Sputtered Pt/Co/X/MgO Ultrathin Structures With Chemically Tailored Top Interface. IEEE Transactions on Magnetics, 2021, 57, 1-10.	2.1	1
9	Spin-Torque-Triggered Magnetization Reversal in Magnetic Tunnel Junctions with Perpendicular Shape Anisotropy. Physical Review Applied, 2021, 16, .	3.8	5
10	Spintronic memristors for neuromorphic circuits based on the angular variation of tunnel magnetoresistance. Nanoscale, 2021, 13, 11488-11496.	5.6	10
11	Double magnetic tunnel junctions with a switchable assistance layer for improved spin transfer torque magnetic memory performance. Nanoscale, 2021, 13, 14096-14109.	5.6	6
12	Static and dynamic properties of 1-kink skyrmion in Pt/Co/MgO trilayer. Physical Review B, 2021, 104, .	3.2	2
13	Isotropically coercive free layer integration in a magnetic tunnel junction for neuromorphic applications. , 2020, , .		0
14	Thermal robustness of magnetic tunnel junctions with perpendicular shape anisotropy. Nanoscale, 2020, 12, 6378-6384.	5.6	18
15	Room-Temperature Skyrmions at Zero Field in Exchange-Biased Ultrathin Films. Physical Review Applied, 2020, 13, .	3.8	29
16	Single-shot all-optical switching of magnetization in Tb/Co multilayer-based electrodes. Scientific Reports, 2020, 10, 5211.	3.3	68
17	Power and phase dynamics of injection-locked spin torque nano-oscillators under conservative and dissipative driving signals. Physical Review B, 2019, 100, .	3.2	5
18	Perpendicular shape anisotropy spin transfer torque-MRAM: determination of pillar tilt angle from 3D Stoner-Wohlfarth astroid analysis. Journal Physics D: Applied Physics, 2019, 52, 505005.	2.8	10

#	ARTICLE	IF	CITATIONS
19	Realizing an Isotropically Coercive Magnetic Layer for Memristive Applications by Analogy to Dry Friction. <i>Physical Review Applied</i> , 2019, 12, .	3.8	7
20	Impact of Dzyaloshinskii-Moriya interactions on the thermal stability factor of heavy metal/magnetic metal/oxide based nano-pillars. <i>Journal of Applied Physics</i> , 2019, 126, 103905.	2.5	6
21	Current-Driven Skyrmion Dynamics and Drive-Dependent Skyrmion Hall Effect in an Ultrathin Film. <i>Physical Review Applied</i> , 2019, 12, .	3.8	111
22	Perpendicular shape anisotropy spin transfer torque magnetic random-access memory: towards sub-10nm devices. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 234001.	2.8	23
23	Integration of Tb/Co multilayers within optically switchable perpendicular magnetic tunnel junctions. <i>AIP Advances</i> , 2019, 9, .	1.3	36
24	Injection locking at 2f of spin torque oscillators under influence of thermal noise. <i>Scientific Reports</i> , 2018, 8, 1728.	3.3	6
25	Ultra-Fast Perpendicular Spin-Orbit Torque MRAM. <i>IEEE Transactions on Magnetics</i> , 2018, 54, 1-4.	2.1	134
26	Magnetic skyrmions in confined geometries: Effect of the magnetic field and the disorder. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 455, 3-8.	2.3	48
27	Impact of Joule heating on the stability phase diagrams of perpendicular magnetic tunnel junctions. <i>Physical Review B</i> , 2018, 98, .	3.2	18
28	Macrospin analysis of RF excitations within fully perpendicular magnetic tunnel junctions with second order easy-axis magnetic anisotropy contribution. <i>Journal of Applied Physics</i> , 2018, 124, 093902.	2.5	2
29	A highly thermally stable sub-20 nm magnetic random-access memory based on perpendicular shape anisotropy. <i>Nanoscale</i> , 2018, 10, 12187-12195.	5.6	87
30	Spin transfer torque magnetic random-access memory: Towards sub-10 nm devices. , 2018, , .		1
31	Spin transfer torque nano-oscillators based on synthetic ferrimagnets: Influence of the exchange bias field and interlayer exchange coupling. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	10
32	Fabrication of nanotweezers and their remote actuation by magnetic fields. <i>Scientific Reports</i> , 2017, 7, 451.	3.3	7
33	Influence of interlayer coupling on the spin-torque-driven excitations in a spin-torque oscillator. <i>Physical Review B</i> , 2017, 95, .	3.2	5
34	Frequency shift keying by current modulation in a MTJ-based STNO with high data rate. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	32
35	Stability phase diagram of a perpendicular magnetic tunnel junction in noncollinear geometry. <i>Physical Review B</i> , 2017, 95, .	3.2	14
36	Inhomogeneous free layer in perpendicular magnetic tunnel junctions and its impact on the effective anisotropies and spin transfer torque switching efficiency. <i>Physical Review B</i> , 2017, 96, .	3.2	15

#	ARTICLE	IF	CITATIONS
37	Micromagnetism Applied to Magnetic Nanostructures. , 2016, , 55-78.		1
38	Enhanced modulation rates via field modulation in spin torque nano-oscillators. Applied Physics Letters, 2016, 108, .	3.3	17
39	Spin torque driven dynamics of a coupled two-layer structure: Interplay between conservative and dissipative coupling. Physical Review B, 2016, 94, .	3.2	4
40	Multilevel Thermally Assisted Magnetoresistive Random-Access Memory Based on Exchange-Biased Vortex Configurations. Physical Review Applied, 2016, 6, .	3.8	27
41	Domain wall dynamics in ultrathin Pt/Co/AlOx microstrips under large combined magnetic fields. Physical Review B, 2016, 93, .	3.2	44
42	Control of Sub-Nanosecond Precessional Magnetic Switching in STT-MRAM Cells for SRAM Applications. , 2016, , .		2
43	Room-temperature chiral magnetic skyrmions in ultrathin magnetic nanostructures. Nature Nanotechnology, 2016, 11, 449-454.	31.5	829
44	Chiral damping of magnetic domain walls. Nature Materials, 2016, 15, 272-277.	27.5	99
45	Spin-orbit torque magnetization switching controlled by geometry. Nature Nanotechnology, 2016, 11, 143-146.	31.5	111
46	Respective influence of in-plane and out-of-plane spin-transfer torques in magnetization switching of perpendicular magnetic tunnel junctions. Physical Review B, 2015, 92, .	3.2	31
47	Spin-orbit torque driven chiral magnetization reversal in ultrathin nanostructures. Physical Review B, 2015, 92, .	3.2	68
48	Magnetization reversal by spin orbit torque in a perpendicularly magnetized nanomagnet: A micromagnetic study. , 2015, , .		0
49	Non-linear mode interaction between spin torque driven and damped modes in spin torque nano-oscillators. Applied Physics Letters, 2015, 106, .	3.3	9
50	Modulation bandwidth of spin torque oscillators under current modulation. Applied Physics Letters, 2014, 105, 152401.	3.3	34
51	Chirality-Induced Asymmetric Magnetic Nucleation in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" > \langle \text{mml:mrow} > \langle \text{mml:mi} > \text{Pt} < / \text{mml:mi} > \langle \text{mml:mo} > / < / \text{mml:mo} > \langle \text{mml:mi} > \text{Co} < / \text{mml:mi} > \langle \text{mml:mo} > / < / \text{mml:mo} > \langle \text{mml:msub} >$ Microstructures. Physical Review Letters. 2014, 113, 047203.	7.8	157
52	Magnetization dynamics of an in-plane magnetized synthetic ferrimagnetic free layer submitted to spin-transfer torques and applied field. Physical Review B, 2014, 89, .	3.2	7
53	Modulating spin transfer torque switching dynamics with two orthogonal spin-polarizers by varying the cell aspect ratio. Physical Review B, 2014, 90, .	3.2	11
54	Beyond first-order finite element schemes in micromagnetics. Journal of Computational Physics, 2014, 256, 357-366.	3.8	18

#	ARTICLE	IF	CITATIONS
55	Size dependence of magnetic switching in perpendicularly magnetized MgO/Co/Pt pillars close to the spin reorientation transition. Applied Physics Letters, 2014, 104, 012404.	3.3	6
56	Current driven magnetization dynamics of a self-polarised synthetic ferrimagnet. Journal of Applied Physics, 2014, 115, 083911.	2.5	5
57	Compact Modeling of a Magnetic Tunnel Junction Based on Spin Orbit Torque. IEEE Transactions on Magnetics, 2014, 50, 1-8.	2.1	33
58	Current induced domain wall dynamics in the presence of spin orbit torques. Journal of Applied Physics, 2014, 115, 17D502.	2.5	28
59	Out-of-plane precession of an in-plane magnetized free layer submitted to the spin-transfer torque of a perpendicular polarizer: An analytical perturbative approach. Physical Review B, 2013, 88, .	3.2	15
60	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
61	Compact model of a three-terminal MRAM device based on Spin Orbit Torque switching. , 2013, , .		14
62	Spin-torque nano-oscillator based on a synthetic antiferromagnet free layer and perpendicular to plane polarizer. Journal of Applied Physics, 2013, 113, 113908.	2.5	21
63	Redshift and Blueshift Regimes in Spin-Transfer-Torque Nano-Oscillator Based on Synthetic Antiferromagnetic Layer. IEEE Magnetics Letters, 2013, 4, 3500204-3500204.	1.1	14
64	Current induced domain wall dynamics in the presence of a transverse magnetic field in out-of-plane magnetized materials. Journal of Applied Physics, 2012, 112, .	2.5	16
65	Sub-Nanosecond Precessional Switching in a MRAM Cell with a Perpendicular Polarizer. , 2012, , .		1
66	Linewidth of higher harmonics in a nonisochronous auto-oscillator: Application to spin-torque nano-oscillators. Physical Review B, 2012, 86, .	3.2	14
67	Spin-current vortices in current-perpendicular-to-plane nanoconstricted spin valves. Physical Review B, 2011, 84, .	3.2	15
68	Origin and control of exchange-bias-like phenomenon in coupled ferromagnetic [Pt/Co]/NiFe bilayers. Physical Review B, 2011, 84, .	3.2	22
69	Linewidth reduction in a spin-torque nano-oscillator caused by non-conservative current-induced coupling between magnetic layers. Applied Physics Letters, 2011, 99, .	3.3	33
70	Injection locking of tunnel junction oscillators to a microwave current. Applied Physics Letters, 2011, 98, .	3.3	45
71	Fast current-induced domain-wall motion controlled by the Rashba effect. Nature Materials, 2011, 10, 419-423.	27.5	741
72	Improved coherence of ultrafast spin-transfer-driven precessional switching with synthetic antiferromagnet perpendicular polarizer. Applied Physics Letters, 2011, 98, 242511.	3.3	13

#	ARTICLE	IF	CITATIONS
73	Stochastic domain-wall depinning under current in FePt spin valves and single layers. <i>Physical Review B</i> , 2011, 84, .	3.2	9
74	Spin-transfer effect and its use in spintronic components. <i>International Journal of Nanotechnology</i> , 2010, 7, 591.	0.2	61
75	Non-adiabatic spin-torques in narrow magnetic domain walls. <i>Nature Physics</i> , 2010, 6, 17-21.	16.7	194
76	Effect of crystalline defects on domain wall motion under field and current in nanowires with perpendicular magnetization. <i>Physical Review B</i> , 2010, 81, .	3.2	22
77	Spin torque driven excitations in a synthetic antiferromagnet. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	42
78	Amplitude and phase noise of magnetic tunnel junction oscillators. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	74
79	Dimensionality Crossover in Magnetism: From Domain Walls (2D) to Vortices (1D). <i>Physical Review Letters</i> , 2010, 104, 127204.	7.8	24
80	Finite Element Modeling of Charge- and Spin-Currents in Magnetoresistive Pillars With Current Crowding Effects. <i>IEEE Magnetism Letters</i> , 2010, 1, 3000304-3000304.	1.1	3
81	Domain wall motion in ferromagnetic systems with perpendicular magnetization. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 1912-1918.	2.3	25
82	100 ps precessional spin-transfer switching of a planar magnetic random access memory cell with perpendicular spin polarizer. <i>Applied Physics Letters</i> , 2009, 95, 072506.	3.3	53
83	Spin-polarized current-induced excitations in a coupled magnetic layer system. <i>Physical Review B</i> , 2009, 79, .	3.2	44
84	Macrospin description of the perpendicular polarizer-planar free-layer spin-torque oscillator. <i>Physical Review B</i> , 2008, 78, .	3.2	83
85	Fast computation of magnetostatic fields by nonuniform fast Fourier transforms. <i>Applied Physics Letters</i> , 2008, 93, 132508.	3.3	8
86	A constrained finite element formulation for the Landau-Lifshitz-Gilbert equations. <i>Computational Materials Science</i> , 2008, 44, 253-258.	3.0	21
87	Modeling of the perpendicular polarizer-planar free layer spin torque oscillator: Micromagnetic simulations. <i>Physical Review B</i> , 2008, 78, .	3.2	40
88	3D micromagnetism-magnetostatic coupling technique for MR reading heads modeling. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 2008, 27, 215-223.	0.9	0
89	Innovative Weak Formulation for the Landau-Lifshitz-Gilbert Equations. <i>IEEE Transactions on Magnetism</i> , 2008, 44, 3153-3156.	2.1	10
90	Finite element formalism for micromagnetism. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 2008, 27, 266-276.	0.9	0

#	ARTICLE	IF	CITATIONS
91	State diagram for spin current-induced magnetization dynamics using a perpendicular polarizer and a planar free layer. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 2029-2031.	2.3	16
92	Magnetization processes in hard Co-rich Co/Pt films with perpendicular anisotropy. <i>Journal of Applied Physics</i> , 2006, 100, 103911.	2.5	31
93	Effect of nanostructuring on the magnetic properties of CoPt films. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006, 126, 207-211.	3.5	9
94	Exchange Bias in Annealed [Pt/Co]/NiFe Systems. <i>IEEE Transactions on Magnetism</i> , 2006, 42, 2990-2992.	2.1	10
95	Magnetic behavior of systems composed of coupled ferromagnetic bilayers with distinct anisotropy directions. <i>Physical Review B</i> , 2006, 73, .	3.2	35
96	Writing and reading bits on pre-patterned media. <i>Applied Physics Letters</i> , 2004, 84, 1519-1521.	3.3	41
97	The defining length scales of mesomagnetism: a review. <i>Journal of Physics Condensed Matter</i> , 2002, 14, R1175-R1262.	1.8	130
98	In-plane reversal mechanisms in circular Co dots. <i>Journal of Applied Physics</i> , 2002, 91, 7343.	2.5	53
99	Correlated Magnetic Vortex Chains in Mesoscopic Cobalt Dot Arrays. <i>Physical Review Letters</i> , 2002, 88, 157203.	7.8	99
100	Magnetotransport measurements as a tool to probe the micromagnetic configurations in epitaxial Co wires. <i>Journal of Magnetism and Magnetic Materials</i> , 2002, 240, 27-29.	2.3	5
101	Domain structures in epitaxial (101-0) Co wires. <i>IEEE Transactions on Magnetism</i> , 2001, 37, 2108-2110.	2.1	26
102	Vortex states stability in circular Co(0001) dots. <i>IEEE Transactions on Magnetism</i> , 2001, 37, 2061-2063.	2.1	24
103	Flux Closure Structures in Cobalt Rings. <i>Physical Review Letters</i> , 2001, 86, 1102-1105.	7.8	298
104	Magnetostatic interactions in artificial ferrimagnet based magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2001, 89, 6811-6813.	2.5	4
105	Observation of asymmetric Bloch walls in epitaxial Co films with strong in-plane uniaxial anisotropy. <i>Applied Physics Letters</i> , 2000, 77, 3066-3068.	3.3	16