

Unai Atxitia

List of Publications by Year in descending order

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47
papers

2,679
citations

257450

24
h-index

243625

44
g-index

50
all docs

50
docs citations

50
times ranked

1871
citing authors

#	ARTICLE	IF	CITATIONS
1	Intrinsic energy flow in laser-excited $3d$ ferromagnets. <i>Physical Review Research</i> , 2022, 4, .	3.6	11
2	Realistic micromagnetic description of all-optical ultrafast switching processes in ferrimagnetic alloys. <i>Physical Review B</i> , 2022, 105, .	3.2	6
3	Accelerating double pulse all-optical write/erase cycles in metallic ferrimagnets. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	13
4	Atomistic spin model of single pulse toggle switching in Mn_2Ru_xGa Heusler alloys. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	5
5	Universal Criteria for Single Femtosecond Pulse Ultrafast Magnetization Switching in Ferrimagnets. <i>Physical Review Letters</i> , 2022, 129, .	7.8	13
6	Unifying femtosecond and picosecond single-pulse magnetic switching in Gd-Fe-Co. <i>Physical Review B</i> , 2021, 103, .	3.2	25
7	Lattice dynamics and ultrafast energy flow between electrons, spins, and phonons in a 3d ferromagnet. <i>Physical Review Research</i> , 2021, 3, .	3.6	21
8	A Review of Modelling in Ferrimagnetic Spintronics. <i>Journal of the Physical Society of Japan</i> , 2021, 90, 081001.	1.6	21
9	Topologically-mediated energy release by relativistic antiferromagnetic solitons. <i>Physical Review Research</i> , 2021, 3, .	3.6	1
10	Temperature scaling of two-ion anisotropy in pure and mixed anisotropy systems. <i>Physical Review B</i> , 2020, 102, .	3.2	24
11	Giant localised spin-Peltier effect due to ultrafast domain wall motion in antiferromagnetic metals. <i>Communications Physics</i> , 2020, 3, .	5.3	9
12	Unveiling domain wall dynamics of ferrimagnets in thermal magnon currents: Competition of angular momentum transfer and entropic torque. <i>Physical Review Research</i> , 2020, 2, .	3.6	18
13	Controlling All-Optical Helicity-Dependent Switching in Engineered Rare-Earth Free Synthetic Ferrimagnets. <i>Advanced Science</i> , 2019, 6, 1901876.	11.2	15
14	Reduced thermal stability of antiferromagnetic nanostructures. <i>Physical Review B</i> , 2019, 100, .	3.2	11
15	Ultrafast double magnetization switching in GdFeCo with two picosecond-delayed femtosecond pump pulses. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	22
16	Ultrafast magnetization dynamics at very high magnetic fields and elevated temperatures. <i>Physical Review B</i> , 2018, 98, .	3.2	6
17	Fundamentals and applications of the Landau-Lifshitz-Bloch equation. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 033003.	2.8	83
18	Temperature scaling of the Dzyaloshinsky-Moriya interaction in the spin wave spectrum. <i>Physical Review B</i> , 2017, 96, .	3.2	33

#	ARTICLE	IF	CITATIONS
19	Inertia-Free Thermally Driven Domain-Wall Motion in Antiferromagnets. Physical Review Letters, 2016, 117, 107201.	7.8	77
20	Optimising materials for energy-efficient all-optical magnetic switching. , 2015, , .		0
21	Multiscale modeling of ultrafast element-specific magnetization dynamics of ferromagnetic alloys. Physical Review B, 2015, 92, .	3.2	40
22	The Landau-Lifshitz equation in atomistic models. Low Temperature Physics, 2015, 41, 705-712.	0.6	44
23	The classical two-sublattice Landau-Lifshitz-Bloch equation for all temperatures. Low Temperature Physics, 2015, 41, 739-744.	0.6	15
24	Optimal electron, phonon, and magnetic characteristics for low energy thermally induced magnetization switching. Applied Physics Letters, 2015, 107, .	3.3	29
25	Multiscale modeling of ultrafast element-specific magnetization dynamics in FeNi ferromagnetic alloys. , 2015, , .		0
26	Energy efficient thermally induced magnetization switching by tailoring the electron and phonon dynamics. , 2015, , .		0
27	Quantitative simulation of temperature-dependent magnetization dynamics and equilibrium properties of elemental ferromagnets. Physical Review B, 2015, 91, .	3.2	119
28	Inverse faraday effect as mechanism for ultrafast all-optical magnetic switching. , 2015, , .		0
29	Atomistic modeling of magnetization reversal modes in L_1 nanodots with magnetically soft edges. Physical Review B, 2014, 90, .	3.2	113
30	Controlling the polarity of the transient ferromagneticlike state in ferrimagnets. Physical Review B, 2014, 89, .	3.2	40
31	Quantum Landau-Lifshitz-Bloch equation and its comparison with the classical case. Physical Review B, 2014, 90, .	3.2	37
32	Ultrafast dynamical path for the switching of a ferrimagnet after femtosecond heating. Physical Review B, 2013, 87, .	3.2	57
33	Two-magnon bound state causes ultrafast thermally induced magnetisation switching. Scientific Reports, 2013, 3, 3262.	3.3	87
34	Temperature dependence of the frequencies and effective damping parameters of ferrimagnetic resonance. Physical Review B, 2012, 86, .	3.2	33
35	Unified decoupling scheme for exchange and anisotropy contributions and temperature-dependent spectral properties of anisotropic spin systems. Physical Review B, 2012, 86, .	3.2	21
36	Stochastic form of the Landau-Lifshitz-Bloch equation. Physical Review B, 2012, 85, .	3.2	157

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37	Landau-Lifshitz-Bloch equation for ferrimagnetic materials. Physical Review B, 2012, 86, .	3.2	80
38	Ultrafast heating as a sufficient stimulus for magnetization reversal in a ferrimagnet. Nature Communications, 2012, 3, 666.	12.8	588
39	Electron- and phonon-mediated ultrafast magnetization dynamics of Gd(0001). Physical Review B, 2012, 85, .	3.2	56
40	Ultrafast magnetization dynamics rates within the Landau-Lifshitz-Bloch model. Physical Review B, 2011, 84, .	3.2	90
41	Crystallographically amorphous ferrimagnetic alloys: Comparing a localized atomistic spin model with experiments. Physical Review B, 2011, 84, .	3.2	130
42	Multiscale modeling of magnetic materials: Temperature dependence of the exchange stiffness. Physical Review B, 2010, 82, .	3.2	95
43	Damping dependence of the reversal time of the magnetization of single-domain ferromagnetic particles for the Néel-Brown model: Langevin dynamics simulations versus analytic results. Physical Review B, 2010, 82, .	3.2	20
44	Evidence for thermal mechanisms in laser-induced femtosecond spin dynamics. Physical Review B, 2010, 81, .	3.2	139
45	Ultrafast Spin Dynamics: The Effect of Colored Noise. Physical Review Letters, 2009, 102, 057203.	7.8	72
46	Towards multiscale modeling of magnetic materials: Simulations of FePt. Physical Review B, 2008, 77, .	3.2	188
47	Micromagnetic modeling of laser-induced magnetization dynamics using the Landau-Lifshitz-Bloch equation. Applied Physics Letters, 2007, 91, .	3.3	114