Jonathan Leliaert

List of Publications by Year in Descending Order

38 papers	2,065 citations	14 h-index	43 g-index
43 ext. papers	2,671 ext. citations	4.4 avg, IF	5 L-index

#	Paper	IF	Citations
38	Magnetic nanoparticles in theranostic applications. *Journal of Applied Physics*, **2022**, 131, 160902	2.5	3
37	Unraveling Nanostructured Spin Textures in Bulk Magnets. *Small Science*, **2021**, 1, 2000003		2
36	Advanced analysis of magnetic nanoflower measurements to leverage their use in biomedicine. *Nanoscale Advances*, **2021**, 3, 1633-1645	5.1	6
35	Noise Power Properties of Magnetic Nanoparticles as Measured in Thermal Noise Magnetometry. *IEEE Access*, **2021**, 9, 111505-111517	3.5	2
34	Confined magnetoelastic waves in thin waveguides. *Physical Review B*, **2021**, 103,	3.3	4
33	Magnetic anisotropy of individual maghemite mesocrystals. *Physical Review B*, **2021**, 103,	3.3	5
32	Individual particle heating of interacting magnetic nanoparticles at nonzero temperature. *Nanoscale*, **2021**, 13, 14734-14744	7.7	1
31	The role of temperature and drive current in skyrmion dynamics. *Nature Electronics*, **2020**, 3, 30-36	28.4	41
30	Direct observation of temperature dependent vortex dynamics in a La0.7Sr0.3MnO3 micromagnet. *Physical Review Research*, **2020**, 2,	3.9	3
29	Simultaneous Coercivity and Size Determination of Magnetic Nanoparticles. *Sensors*, **2020**, 20,	3.8	5
28	Tomorrow micromagnetic simulations. *Journal of Applied Physics*, **2019**, 125, 180901	2.5	32
27	Design of Intense Nanoscale Stray Fields and Gradients at Magnetic Nanorod Interfaces. *ACS Applied Materials & Interfaces*, **2019**, 11, 4678-4685	9.5	7
26	Coupling of the skyrmion velocity to its breathing mode in periodically notched nanotracks. *Journal Physics D: Applied Physics*, **2019**, 52, 024003	3	7
25	Dynamical Magnetic Response of Iron Oxide Nanoparticles Inside Live Cells. *ACS Nano*, **2018**, 12, 2741-2752	15.7	85
24	Balanced Magnetic Logic Gates in a Kagome Spin Ice. *Physical Review Applied*, **2018**, 9,	4.3	18
23	Fast micromagnetic simulations on GPU ecent advances made with $mathsf{mumax}^3$. *Journal Physics D: Applied Physics*, **2018**, 51, 123002	3	56
22	Effect of boundary-induced chirality on magnetic textures in thin films. *Physical Review B*, **2018**, 98,	3.3	8

21	Sensor fusion of electron paramagnetic resonance and magnetorelaxometry data for quantitative magnetic nanoparticle imaging. *Journal Physics D: Applied Physics*, **2017**, 50, 085008	3	
20	The complementarity and similarity of magnetorelaxometry and thermal magnetic noise spectroscopy for magnetic nanoparticle characterization. *Journal Physics D: Applied Physics*, **2017**, 50, 085004	3	7
19	Multi-color magnetic nanoparticle imaging using magnetorelaxometry. *Physics in Medicine and Biology*, **2017**, 62, 3139-3157	3.8	16
18	Interpreting the magnetorelaxometry signal of suspended magnetic nanoparticles with Kaczmarz algorithm. *Journal Physics D: Applied Physics*, **2017**, 50, 195002	3	9
17	Modelling compensated antiferromagnetic interfaces with MuMax3. *Journal Physics D: Applied Physics*, **2017**, 50, 425002	3	6
16	Field-driven chiral bubble dynamics analysed by a semi-analytical approach. *Journal Physics D: Applied Physics*, **2017**, 50, 495007	3	2
15	The effect of the magnetic nanoparticle size dependence of the relaxation time constant on the specific loss power of magnetic nanoparticle hyperthermia. *Journal of Magnetism and Magnetic Materials*, **2017**, 426, 206-210	2.8	12
14	Adaptively time stepping the stochastic Landau-Lifshitz-Gilbert equation at nonzero temperature: Implementation and validation in MuMax3. *AIP Advances*, **2017**, 7, 125010	1.5	39
13	Creep turns linear in narrow ferromagnetic nanostrips. *Scientific Reports*, **2016**, 6, 20472	4.9	10
12	Electric-field-driven dynamics of magnetic domain walls in magnetic nanowires patterned on ferroelectric domains. *New Journal of Physics*, **2016**, 18, 033027	2.9	7
11	Vinamax: a macrospin simulation tool for magnetic nanoparticles. *Medical and Biological Engineering and Computing*, **2015**, 53, 309-17	3.1	16
10	Thermal effects on transverse domain wall dynamics in magnetic nanowires. *Applied Physics Letters*, **2015**, 106, 202401	3.4	14
9	Quantitative model selection for enhanced magnetic nanoparticle imaging in magnetorelaxometry. *Medical Physics*, **2015**, 42, 6853-62	4.4	10
8	Toward 2D and 3D imaging of magnetic nanoparticles using EPR measurements. *Medical Physics*, **2015**, 42, 5007-14	4.4	6
7	Thermal magnetic noise spectra of nanoparticle ensembles. *Applied Physics Letters*, **2015**, 107, 222401	3.4	12
6	A numerical approach to incorporate intrinsic material defects in micromagnetic simulations. *Journal of Applied Physics*, **2014**, 115, 17D102	2.5	25
5	Influence of material defects on current-driven vortex domain wall mobility. *Physical Review B*, **2014**, 89,	3.3	18
4	The design and verification of MuMax3. *AIP Advances*, **2014**, 4, 107133	1.5	1509

3	Current-driven domain wall mobility in polycrystalline Permalloy nanowires: A numerical study. *Journal of Applied Physics*, **2014**, 115, 233903	2.5	40
2	Regarding the Néel relaxation time constant in magnetorelaxometry. *Journal of Applied Physics*, **2014**, 116, 163914	2.5	17
1	Finite difference magnetoelastic simulator. *Open Research Europe*,1, 35		5