

# Jonathan Leliaert

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	The design and verification of MuMax3. <i>AIP Advances</i> , <b>2014</b> , 4, 107133	1.5	1509
37	Dynamical Magnetic Response of Iron Oxide Nanoparticles Inside Live Cells. <i>ACS Nano</i> , <b>2018</b> , 12, 2741-2752	15.7	85
36	Fast micromagnetic simulations on GPU: Recent advances made with $\mu\text{max}^3$ . <i>Journal of Applied Physics</i> , <b>2018</b> , 51, 123002	3	56
35	The role of temperature and drive current in skyrmion dynamics. <i>Nature Electronics</i> , <b>2020</b> , 3, 30-36	28.4	41
34	Current-driven domain wall mobility in polycrystalline Permalloy nanowires: A numerical study. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 233903	2.5	40
33	Adaptively time stepping the stochastic Landau-Lifshitz-Gilbert equation at nonzero temperature: Implementation and validation in MuMax3. <i>AIP Advances</i> , <b>2017</b> , 7, 125010	1.5	39
32	Tomorrow's micromagnetic simulations. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 180901	2.5	32
31	A numerical approach to incorporate intrinsic material defects in micromagnetic simulations. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 17D102	2.5	25
30	Balanced Magnetic Logic Gates in a Kagome Spin Ice. <i>Physical Review Applied</i> , <b>2018</b> , 9,	4.3	18
29	Influence of material defects on current-driven vortex domain wall mobility. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	18
28	Regarding the N <sub>1</sub> relaxation time constant in magnetorelaxometry. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 163914	2.5	17
27	Multi-color magnetic nanoparticle imaging using magnetorelaxometry. <i>Physics in Medicine and Biology</i> , <b>2017</b> , 62, 3139-3157	3.8	16
26	Vinamax: a macrospin simulation tool for magnetic nanoparticles. <i>Medical and Biological Engineering and Computing</i> , <b>2015</b> , 53, 309-17	3.1	16
25	Thermal effects on transverse domain wall dynamics in magnetic nanowires. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 202401	3.4	14
24	The effect of the magnetic nanoparticle's size dependence of the relaxation time constant on the specific loss power of magnetic nanoparticle hyperthermia. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2017</b> , 426, 206-210	2.8	12
23	Thermal magnetic noise spectra of nanoparticle ensembles. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 222401	3.4	12
22	Creep turns linear in narrow ferromagnetic nanostrips. <i>Scientific Reports</i> , <b>2016</b> , 6, 20472	4.9	10

21	Quantitative model selection for enhanced magnetic nanoparticle imaging in magnetorelaxometry. <i>Medical Physics</i> , <b>2015</b> , 42, 6853-62	4.4	10
20	Interpreting the magnetorelaxometry signal of suspended magnetic nanoparticles with Kaczmarz algorithm. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 195002	3	9
19	Effect of boundary-induced chirality on magnetic textures in thin films. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	8
18	The complementarity and similarity of magnetorelaxometry and thermal magnetic noise spectroscopy for magnetic nanoparticle characterization. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 085004	3	7
17	Electric-field-driven dynamics of magnetic domain walls in magnetic nanowires patterned on ferroelectric domains. <i>New Journal of Physics</i> , <b>2016</b> , 18, 033027	2.9	7
16	Design of Intense Nanoscale Stray Fields and Gradients at Magnetic Nanorod Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 4678-4685	9.5	7
15	Coupling of the skyrmion velocity to its breathing mode in periodically notched nanotracks. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 024003	3	7
14	Modelling compensated antiferromagnetic interfaces with MuMax3. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 425002	3	6
13	Toward 2D and 3D imaging of magnetic nanoparticles using EPR measurements. <i>Medical Physics</i> , <b>2015</b> , 42, 5007-14	4.4	6
12	Advanced analysis of magnetic nanoflower measurements to leverage their use in biomedicine. <i>Nanoscale Advances</i> , <b>2021</b> , 3, 1633-1645	5.1	6
11	Simultaneous Coercivity and Size Determination of Magnetic Nanoparticles. <i>Sensors</i> , <b>2020</b> , 20,	3.8	5
10	Finite difference magnetoelastic simulator. <i>Open Research Europe</i> , 1, 35		5
9	Magnetic anisotropy of individual maghemite mesocrystals. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	5
8	Confined magnetoelastic waves in thin waveguides. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	4
7	Direct observation of temperature dependent vortex dynamics in a La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> micromagnet. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	3
6	Magnetic nanoparticles in theranostic applications. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 160902	2.5	3
5	Field-driven chiral bubble dynamics analysed by a semi-analytical approach. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 495007	3	2
4	Unraveling Nanostructured Spin Textures in Bulk Magnets. <i>Small Science</i> , <b>2021</b> , 1, 2000003		2

- 3 Noise Power Properties of Magnetic Nanoparticles as Measured in Thermal Noise Magnetometry. *IEEE Access*, **2021**, 9, 111505-111517 3.5 2
- 2 Individual particle heating of interacting magnetic nanoparticles at nonzero temperature. *Nanoscale*, **2021**, 13, 14734-14744 7.7 1
- 1 Sensor fusion of electron paramagnetic resonance and magnetorelaxometry data for quantitative magnetic nanoparticle imaging. *Journal Physics D: Applied Physics*, **2017**, 50, 085008 3