

# Reinoud Lavrijsen

## List of Publications by Year in descending order

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Version: 2024-02-01

72

papers

2,663

citations

257450

24

h-index

182427

51

g-index

74

all docs

74

docs citations

74

times ranked

3007

citing authors

#	ARTICLE	IF	CITATIONS
1	Control of magnetic interface effects in chiral $\text{Ir}/\text{Co}/\text{Pt}$ multilayers using $\text{Ga}/\text{GaAs}$ heterostructures. <i>Applied Physics Letters</i> , 2022, 120, 252401.	3.2	17
2	An integrated photonic device for on-chip magneto-optical memory reading. <i>Nanophotonics</i> , 2022, 11, 3319-3329.	6.0	3
3	Toward high all-optical data writing rates in synthetic ferrimagnets. <i>Applied Physics Letters</i> , 2022, 120, 252401.	3.3	0
4	Picosecond optospintronic tunnel junctions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	25
5	Accurate extraction of anisotropic spin-orbit torques from harmonic measurements. <i>Applied Physics Letters</i> , 2021, 118, 172403.	3.3	2
6	An investigation of the interface and bulk contributions to the magneto-optic activity in $\text{Co}/\text{Pt}$ multi-layered thin films. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	4
7	Ultra-low energy threshold engineering for all-optical switching of magnetization in dielectric-coated $\text{Co}/\text{Gd}$ based synthetic-ferrimagnet. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	7
8	Enhanced all-optical switching and domain wall velocity in annealed synthetic-ferrimagnetic multilayers. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	16
9	Chiral Spin Spirals at the Surface of the van der Waals Ferromagnet $\text{Fe}_3\text{GeTe}_2$ . <i>Nano Letters</i> , 2020, 20, 8563-8568.	9.1	35
10	Design and Modelling of a Novel Integrated Photonic Device for Nano-Scale Magnetic Memory Reading. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8267.	2.5	2
11	Stabilizing chiral spin structures via an alternating Dzyaloshinskii-Moriya interaction. <i>Physical Review B</i> , 2020, 102, .	3.2	6
12	Deterministic all-optical magnetization writing facilitated by non-local transfer of spin angular momentum. <i>Nature Communications</i> , 2020, 11, 3835.	12.8	34
13	Magnetic domain wall curvature induced by wire edge pinning. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	7
14	Dynamics of all-optically switched magnetic domains in $\text{Co}/\text{Gd}$ heterostructures with Dzyaloshinskii-Moriya interaction. <i>Physical Review B</i> , 2020, 102, .	3.2	7
15	Extraction of Dzyaloshinskii-Moriya interaction from propagating spin waves. <i>Physical Review B</i> , 2020, 101, .	3.2	21
16	Magnetic Chirality Controlled by the Interlayer Exchange Interaction. <i>Physical Review Letters</i> , 2020, 124, 207203.	7.8	18
17	Optimizing propagating spin wave spectroscopy. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	13
18	Structural transitions of skyrmion lattices in synthetic antiferromagnets. <i>Physical Review B</i> , 2019, 100, .	3.2	3

#	ARTICLE	IF	CITATIONS
19	Tuning Magnetic Chirality by Dipolar Interactions. Physical Review Letters, 2019, 123, 157201.	7.8	25
20	Integrating all-optical switching with spintronics. Nature Communications, 2019, 10, 110.	12.8	85
21	Creep of chiral domain walls. Physical Review B, 2019, 100, .	3.2	12
22	Boosting the Performance of WO <sub>3</sub> /n-Si Heterostructures for Photoelectrochemical Water Splitting: from the Role of Si to Interface Engineering. Advanced Energy Materials, 2019, 9, 1900940.	19.5	48
23	Electrochemistry of Sputtered Hematite Photoanodes: A Comparison of Metallic DC versus Reactive RF Sputtering. ACS Omega, 2019, 4, 9262-9270.	3.5	7
24	Investigating optically excited terahertz standing spin waves using noncollinear magnetic bilayers. Physical Review B, 2019, 99, .	3.2	22
25	Long-range chiral exchange interaction in synthetic antiferromagnets. Nature Materials, 2019, 18, 703-708.	27.5	83
26	Versatile microfluidic flow generated by moulded magnetic artificial cilia. Sensors and Actuators B: Chemical, 2018, 263, 614-624.	7.8	62
27	Sputter Grown Fe and Fe/Cr Multilayers With Fourfold Magnetic Anisotropy on GaAs. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	2
28	Synthesis of Ni nanoparticles with controllable magnetic properties by atmospheric pressure microplasma assisted process. AIChE Journal, 2018, 64, 1540-1549.	3.6	17
29	Physical and Chemical Defects in WO <sub>3</sub> Thin Films and Their Impact on Photoelectrochemical Water Splitting. ACS Applied Energy Materials, 2018, 1, 5887-5895.	5.1	53
30	Plasma radiation studies in Magnum-PSI using resistive bolometry. Nuclear Fusion, 2018, 58, 106006.	3.5	12
31	Fabrication of Scaffold-Based 3D Magnetic Nanowires for Domain Wall Applications. Nanomaterials, 2018, 8, 483.	4.1	26
32	Vector magnetometry of Fe/Cr/Fe trilayers with biquadratic coupling. Journal Physics D: Applied Physics, 2017, 50, 19LT02.	2.8	0
33	Nanostructuring of iron thin films by high flux low energy helium plasma. Thin Solid Films, 2017, 631, 50-56.	1.8	11
34	Chiral magnetoresistance in Pt/Co/Pt zigzag wires. Applied Physics Letters, 2017, 110, .	3.3	13
35	Fabrication, Detection, and Operation of a Three-Dimensional Nanomagnetic Conduit. ACS Nano, 2017, 11, 11066-11073.	14.6	54
36	Scanning electron microscopy with polarization analysis for multilayered chiral spin textures. Applied Physics Letters, 2017, 111, .	3.3	9

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37	Visible-light-promoted gas-phase water splitting using porous WO <sub>3</sub> /BiVO <sub>4</sub> photoanodes. <i>Electrochemistry Communications</i> , 2017, 82, 47-51.	4.7	42
38	Zigzag Domain Wall Mediated Reversal in Antiferromagnetically Coupled Layers. <i>IEEE Magnetics Letters</i> , 2017, 8, 1-4.	1.1	1
39	The electrochemistry of iron oxide thin films nanostructured by high ion flux plasma exposure. <i>Electrochimica Acta</i> , 2017, 258, 709-717.	5.2	15
40	Thickness dependence of unidirectional spin-Hall magnetoresistance in metallic bilayers. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	22
41	Deterministic all-optical switching of synthetic ferrimagnets using single femtosecond laser pulses. <i>Physical Review B</i> , 2017, 96, .	3.2	113
42	Systematic layer-by-layer characterization of multilayers for three-dimensional data storage and logic. <i>Nanotechnology</i> , 2016, 27, 155203.	2.6	4
43	Magnetic Solitons in Superlattices. <i>Springer Series in Materials Science</i> , 2016, , 219-238.	0.6	1
44	Rashba-effect induced chiral magnetic domain-wall resistance. , 2015, , .		0
45	A robust soliton ratchet using combined antiferromagnetic and ferromagnetic interlayer couplings. <i>Applied Physics Letters</i> , 2015, 106, 092404.	3.3	5
46	Asymmetric magnetic bubble expansion under in-plane field in Pt/Co/Pt: Effect of interface engineering. <i>Physical Review B</i> , 2015, 91, .	3.2	106
47	Thickness dependence of the interfacial Dzyaloshinskii-Moriya interaction in inversion symmetry broken systems. <i>Nature Communications</i> , 2015, 6, 7635.	12.8	256
48	Beam-Induced Fe Nanopillars as Tunable Domain-Wall Pinning Sites. <i>Advanced Functional Materials</i> , 2014, 24, 3508-3514.	14.9	24
49	Magnetic properties and interlayer coupling of epitaxial Co/Cu films on Si. <i>Journal of Applied Physics</i> , 2014, 116, 063906.	2.5	4
50	Multi-bit operations in vertical spintronic shift registers. <i>Nanotechnology</i> , 2014, 25, 105201.	2.6	20
51	Soliton propagation in micron-sized magnetic ratchet elements. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	9
52	Non-magnetic control of domain-walls in ferromagnetic nano-wires with perpendicular magnetic anisotropy. , 2013, , .		0
53	Magnetic states in low-pinning high-anisotropy material nanostructures suitable for dynamic imaging. <i>Physical Review B</i> , 2013, 87, .	3.2	17
54	Domain wall depinning governed by the spin-Hall effect. <i>Nature Materials</i> , 2013, 12, 299-303.	27.5	546

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55	Magnetic ratchet for three-dimensional spintronic memory and logic. Nature, 2013, 493, 647-650.	27.8	180
56	DOMAIN IMAGING DURING SOLITON PROPAGATION IN A 3D MAGNETIC RATCHET. Spin, 2013, 03, 1340013.	1.3	17
57	Giant anomalous Hall effect in Fe-based microwires grown by focused-electron-beam-induced deposition. Journal Physics D: Applied Physics, 2012, 45, 035001.	2.8	24
58	Controllable nucleation and propagation of topological magnetic solitons in CoFeB/Ru ferrimagnetic superlattices. Physical Review B, 2012, 86, .	3.2	20
59	Tuning the interlayer exchange coupling between single perpendicularly magnetized CoFeB layers. Applied Physics Letters, 2012, 100, .	3.3	51
60	Domain-wall pinning by local control of anisotropy in Pt/Co/Pt strips. Journal of Physics Condensed Matter, 2012, 24, 024216.	1.8	53
61	Asymmetric Pt/Co/Pt-stack induced sign-control of current-induced magnetic domain-wall creep. Applied Physics Letters, 2012, 100, .	3.3	32
62	Magnetism in Co <sub>80</sub> -xFe <sub>x</sub> B <sub>20</sub> : Effect of crystallization. Journal of Applied Physics, 2011, 109, 093905.	2.5	14
63	Enhanced field-driven domain-wall motion in Pt/Co <sub>68</sub> B <sub>32</sub> /Pt strips. Applied Physics Letters, 2011, 98, .	3.3	19
64	Fe:O:C grown by focused-electron-beam-induced deposition: magnetic and electric properties. Nanotechnology, 2011, 22, 025302.	2.6	47
65	Precise control of domain wall injection and pinning using helium and gallium focused ion beams. Journal of Applied Physics, 2011, 109, .	2.5	52
66	Spin motive forces due to magnetic vortices and domain walls. Physical Review B, 2011, 84, .	3.2	12
67	Tunable magnetic domain wall oscillator at an anisotropy boundary. Applied Physics Letters, 2011, 98, 102512.	3.3	17
68	Reduced domain wall pinning in ultrathin Pt/Co <sub>100</sub> ~xBx/Pt with perpendicular magnetic anisotropy. Applied Physics Letters, 2010, 96, .	3.3	21
69	Controlled domain-wall injection in perpendicularly magnetized strips. Applied Physics Letters, 2010, 96, .	3.3	26
70	Magnetization dynamics and Gilbert damping in ultrathin Co <sub>48</sub> Fe <sub>32</sub> B <sub>20</sub> films with out-of-plane anisotropy. Applied Physics Letters, 2009, 94, .	3.3	99
71	Correlation between Magnetism and Spin-Dependent Transport in CoFeB Alloys. Physical Review Letters, 2009, 102, 016602.	7.8	30
72	Tunneling spin polarization and annealing of Co <sub>72</sub> Fe <sub>20</sub> B <sub>8</sub> . Journal of Magnetism and Magnetic Materials, 2007, 310, 1202-1214.	2.3	2