

# Gregory Malinowski

## List of Publications by Year in descending order

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papers

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172207

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106150

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94  
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94  
docs citations

94  
times ranked

3521  
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigating Coherent Magnetization Control with Ultrashort THz Pulses. Applied Sciences (Switzerland), 2022, 12, 1323.	1.3	6
2	Role of spin-lattice coupling in ultrafast demagnetization and all optical helicity-independent single-shot switching in $\text{Gd}_{1-x}\text{Mn}_x$ alloys. Physical Review B, 2022, 105, .	1.1	14
3	Ultrafast magnetic scattering on ferrimagnets enabled by a bright Yb-based soft x-ray source. Optica, 2022, 9, 399.	4.8	8
4	Light induced ultrafast magnetization dynamics in metallic compounds. Journal of Magnetism and Magnetic Materials, 2022, 560, 169596.	1.0	12
5	On/Off Ultrafast Spin Current for Single Pulse Magnetization Reversal in a Magnetic Memory Using VO <sub>2</sub> Phase Transition. Advanced Electronic Materials, 2022, 8, .	2.6	6
6	Is terahertz emission a good probe of the spin current attenuation length?. Applied Physics Letters, 2022, 121, .	1.5	7
7	Generation of spin waves via spin-phonon interaction in a buried dielectric thin film. Physical Review B, 2021, 103, .	1.1	8
8	Ab Initio Study of Helicity-Dependent Light-Induced Demagnetization: From the Optical Regime to the Extreme Ultraviolet Regime. Nano Letters, 2021, 21, 1943-1947.	4.5	10
9	$\text{Gd}_{1-x}\text{Fe}_x$ Laser induced ultrafast 3d and 4f spin dynamics in CoDy ferrimagnetic alloys as a function of temperature. Journal of Magnetism and Magnetic Materials, 2021, 530, 167883.	1.5	23
10	Laser induced ultrafast 3d and 4f spin dynamics in CoDy ferrimagnetic alloys as a function of temperature. Journal of Magnetism and Magnetic Materials, 2021, 530, 167883.	1.0	1
11	Spin-transport Mediated Single-shot All-optical Magnetization Switching of Metallic Films. Journal of the Physical Society of Japan, 2021, 90, 081009.	0.7	12
12	Time-Resolved XUV Absorption Spectroscopy and Magnetic Circular Dichroism at the Ni M <sub>2,3</sub> -Edges. Applied Sciences (Switzerland), 2021, 11, 325.	1.3	17
13	Energy Efficient Control of Ultrafast Spin Current to Induce Single Femtosecond Pulse Switching of a Ferromagnet. Advanced Science, 2020, 7, 2001996.	5.6	30
14	Engineering Single-Shot All-Optical Switching of Ferromagnetic Materials. Nano Letters, 2020, 20, 8654-8660.	4.5	37
15	Spin-orbit torque switching of a ferromagnet with picosecond electrical pulses. Nature Electronics, 2020, 3, 680-686.	13.1	63
16	Heat Transport without Heating? An Ultrafast X-Ray Perspective into a Metal Heterostructure. Advanced Functional Materials, 2020, 30, 2004555.	7.8	15
17	Laser-induced ultrafast demagnetization and perpendicular magnetic anisotropy reduction in a Co <sub>88</sub> Tb <sub>12</sub> thin film with stripe domains. Physical Review B, 2020, 102, .	1.1	21
18	Optoelectronic domain-wall motion for logic computing. Applied Physics Letters, 2020, 116, 252403.	1.5	5

#	ARTICLE	IF	CITATIONS
19	Engineering Co <sub>2</sub> MnAl <sub>x</sub> Si <sub>1-x</sub> Heusler Compounds as a Model System to Correlate Spin Polarization, Intrinsic Gilbert Damping, and Ultrafast Demagnetization. <i>Advanced Materials</i> , 2020, 32, e1908357.	11.1	29
20	Tailoring femtosecond hot-electron pulses for ultrafast spin manipulation. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	4
21	From Multiple- to Single-Pulse All-Optical Helicity-Dependent Switching in Ferromagnetic Multilayers. <i>Physical Review Applied</i> , 2019, 12, .	1.5	34
22	Femtosecond Laser-Excitation-Driven High Frequency Standing Spin Waves in Nanoscale Dielectric Thin Films of Iron Garnets. <i>Physical Review Letters</i> , 2019, 123, 027202.	2.9	24
23	Resolving the role of magnetic circular dichroism in multishot helicity-dependent all-optical switching. <i>Physical Review B</i> , 2019, 100, .	1.1	17
24	Resonant Faraday effect using high-order harmonics for the investigation of ultrafast demagnetization. <i>Physical Review B</i> , 2019, 100, .	1.1	9
25	Damping of Standing Spin Waves in Bismuth-Substituted Yttrium Iron Garnet as Seen via the Time-Resolved Magneto-Optical Kerr Effect. <i>Physical Review Applied</i> , 2019, 12, .	1.5	16
26	Controlling All-Optical Helicity-Dependent Switching in Engineered Rare-Earth Free Synthetic Ferrimagnets. <i>Advanced Science</i> , 2019, 6, 1901876.	5.6	15
27	From single to multiple pulse all-optical switching in GdFeCo thin films. <i>Physical Review B</i> , 2019, 100, .	1.1	23
28	<i>Ab initio</i> study of electronic temperature effects on magnetic materials properties. <i>Physical Review B</i> , 2019, 99, .	1.1	4
29	Ultrafast demagnetization in buried Co <sub>80</sub> Dy <sub>20</sub> as fingerprint of hot-electron transport. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 485, 320-324.	1.0	3
30	Single-shot time-resolved magnetic x-ray absorption at a free-electron laser. <i>Physical Review B</i> , 2019, 99, .	1.1	12
31	Energy-Efficient Domain-Wall Motion Governed by the Interplay of Helicity-Dependent Optical Effect and Spin-Orbit Torque. <i>Physical Review Applied</i> , 2019, 11, .	1.5	13
32	Domain-wall motion induced by spin transfer torque delivered by helicity-dependent femtosecond laser. <i>Physical Review B</i> , 2019, 99, .	1.1	7
33	<i>Ab initio</i> theory of magnetization induced by light absorption in ferromagnets. <i>Physical Review B</i> , 2019, 100, .	1.1	6
34	Helicity-dependent all-optical domain wall motion in ferromagnetic thin films. <i>Physical Review B</i> , 2018, 97, .	1.1	53
35	Suppression of all-optical switching in He <sup>+</sup> -irradiated Co/Pt multilayers: influence of the domain-wall energy. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 215004.	1.3	6
36	Spin-orbit torque-induced switching in ferrimagnetic alloys: Experiments and modeling. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	69

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37	Picosecond acoustic-excitation-driven ultrafast magnetization dynamics in dielectric Bi-substituted yttrium iron garnet. <i>Physical Review B</i> , 2018, 98, .	1.1	34
38	Creation of Magnetic Skyrmion Bubble Lattices by Ultrafast Laser in Ultrathin Films. <i>Nano Letters</i> , 2018, 18, 7362-7371.	4.5	103
39	Single-Shot Multi-Level All-Optical Magnetization Switching Mediated by Spin Transport. <i>Advanced Materials</i> , 2018, 30, e1804004.	11.1	69
40	Thermal Contribution to the Spin-Orbit Torque in Metallic-Ferrimagnetic Systems. <i>Physical Review Applied</i> , 2018, 9, .	1.5	52
41	Layer specific observation of slow thermal equilibration in ultrathin metallic nanostructures by femtosecond X-ray diffraction. <i>Nature Communications</i> , 2018, 9, 3335.	5.8	38
42	Hot-electron transport and ultrafast magnetization dynamics in magnetic multilayers and nanostructures following femtosecond laser pulse excitation. <i>European Physical Journal B</i> , 2018, 91, 1.	0.6	19
43	Materials and devices for all-optical helicity-dependent switching. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 133002.	1.3	43
44	Ultrafast hot-electron induced quenching of Tb $4f^7 5d^1 6s^2$ magnetic order. <i>Physical Review B</i> , 2017, 96, .	1.1	19
45	Manipulating exchange bias using all-optical helicity-dependent switching. <i>Physical Review B</i> , 2017, 96, .	1.1	19
46	Ultrafast Magnetization Manipulation Using Single Femtosecond Light and Hot-Electron Pulses. <i>Advanced Materials</i> , 2017, 29, 1703474.	11.1	75
47	Element-resolved ultrafast demagnetization rates in ferrimagnetic CoDy. <i>Physical Review B</i> , 2017, 96, .	1.1	11
48	Pump-probe experiments at the TEMPO beamline using the low- $\hbar$ operation mode of Synchrotron SOLEIL. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 886-897.	1.0	18
49	All-optical switching behaviours in synthetic ferrimagnetic heterostructures with different ferromagnetic-layer Curie temperatures. , 2017, , .		0
50	Electrical characterization of all-optical helicity-dependent switching in ferromagnetic Hall crosses. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	52
51	Indirect excitation of ultrafast demagnetization. <i>Scientific Reports</i> , 2016, 6, 18970.	1.6	61
52	Hot-Electron-Induced Ultrafast Demagnetization in $\text{Co/Pt}$ Multilayers. <i>Physical Review Letters</i> , 2016, 117, 147203.	2.9	101
53	Two types of all-optical magnetization switching mechanisms using femtosecond laser pulses. <i>Physical Review B</i> , 2016, 94, .	1.1	134
54	Domain size criterion for the observation of all-optical helicity-dependent switching in magnetic thin films. <i>Physical Review B</i> , 2016, 94, .	1.1	66

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55	All-optical control of ferromagnetic thin films and nanostructures: Competition between polarized light and applied magnetic field. , 2015, , .		0
56	Space charge effects occurring during fast demagnetization processes. Springer Proceedings in Physics, 2015, , 313-316.	0.1	0
57	Multiphoton $k$ -resolved photoemission from gold surface states with 800-nm femtosecond laser pulses. Physical Review B, 2014, 90, .	1.1	22
58	Engineered materials for all-optical helicity-dependent magnetic switching. Nature Materials, 2014, 13, 286-292.	13.3	507
59	Stochastic Current-Induced Magnetization Switching in a Single Semiconducting Ferromagnetic Layer. Physical Review Letters, 2014, 112, 026601.	2.9	9
60	All-optical control of ferromagnetic thin films and nanostructures. Science, 2014, 345, 1337-1340.	6.0	524
61	Investigating the role of superdiffusive currents in laser induced demagnetization of ferromagnets with nanoscale magnetic domains. Scientific Reports, 2014, 4, 4658.	1.6	38
62	Probing ultrafast dynamics in electronic structure of epitaxial Gd(0001) on W(110). Journal of Electron Spectroscopy and Related Phenomena, 2013, 189, 40-45.	0.8	4
63	Ultrafast Dynamics of Magnetic Domain Structures Probed by Coherent Free-Electron Laser Light. Synchrotron Radiation News, 2013, 26, 27-32.	0.2	9
64	Determination of the spin torque non-adiabaticity in perpendicularly magnetized nanowires. Journal of Physics Condensed Matter, 2012, 24, 024220.	0.7	10
65	Unidirectional Thermal Effects in Current-Induced Domain Wall Motion. Physical Review Letters, 2012, 109, 106601.	2.9	60
66	Current-induced domain wall motion in nanoscale ferromagnetic elements. Journal Physics D: Applied Physics, 2011, 44, 384005.	1.3	29
67	Nonlocal ultrafast magnetization dynamics in the high fluence limit. Journal of Applied Physics, 2011, 109, .	1.1	14
68	Current-induced domain wall motion in nanoscale ferromagnetic elements. Materials Science and Engineering Reports, 2011, 72, 159-187.	14.8	164
69	Extraction of the spin torque non-adiabaticity from thermally activated domain wall hopping. Applied Physics Letters, 2011, 99, .	1.5	7
70	Reduced domain wall pinning in ultrathin Pt/Co100 $\times$ Bx/Pt with perpendicular magnetic anisotropy. Applied Physics Letters, 2010, 96, .	1.5	21
71	Explaining the paradoxical diversity of ultrafast laser-induced demagnetization. Nature Materials, 2010, 9, 259-265.	13.3	729
72	Current-induced domain wall motion in Ni80Fe20nanowires with low depinning fields. Journal Physics D: Applied Physics, 2010, 43, 045003.	1.3	9

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73	Current-induced domain wall motion in Co/Pt nanowires: Separating spin torque and Oersted-field effects. Applied Physics Letters, 2010, 96, .	1.5	47
74	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, .	1.5	99
75	Reversible switching between bidomain states by injection of current pulses in a magnetic wire with out-of-plane magnetization. Journal of Applied Physics, 2009, 105, 07C106.	1.1	18
76	Angular magnetic field sensor for automotive applications based on magnetic tunnel junctions using a current loop layout configuration. Sensors and Actuators A: Physical, 2008, 144, 263-266.	2.0	16
77	Control of speed and efficiency of ultrafast demagnetization by direct transfer of spin angular momentum. Nature Physics, 2008, 4, 855-858.	6.5	282
78	Nonadiabatic Spin Transfer Torque in High Anisotropy Magnetic Nanowires with Narrow Domain Walls. Physical Review Letters, 2008, 101, 216601.	2.9	128
79	Reply to "Comment on "Size-dependent scaling of perpendicular exchange bias in magnetic nanostructures". Physical Review B, 2008, 77, .	1.1	0
80	Magnetization reversal in exchange biased nanocap arrays. Journal Physics D: Applied Physics, 2007, 40, 3005-3010.	1.3	10
81	Correlation between exchange bias dynamics and magnetization reversal asymmetry in [Pt/Co] <sub>3</sub> /Pt/IrMn multilayers. Applied Physics Letters, 2007, 90, 082501.	1.5	13
82	Size-dependent scaling of perpendicular exchange bias in magnetic nanostructures. Physical Review B, 2007, 75, .	1.1	33
83	Impact of the interface magnetic disorder on the exchange bias between ferromagnetic and antiferromagnetic layers. Journal of Physics Condensed Matter, 2006, 18, 3385-3391.	0.7	4
84	Low-resistance magnetic tunnel junctions with an MgO/Al <sub>2</sub> O <sub>3</sub> composite tunnel barrier: Asymmetric transport characteristics and free electron modeling of a self-limited oxidation bilayer. Physical Review B, 2006, 73, .	1.1	15
85	Field Dynamic Effects in Perpendicular Exchange-Biased [Pt/Co]/IrMn Multilayers. , 2006, , .		0
86	Flux-gate like 2D magnetometer based on a single magnetic tunnel junction. EPJ Applied Physics, 2005, 30, 113-116.	0.3	3
87	Correlation between structural quality and magnetic properties of IrMn-based multilayers. Journal of Applied Physics, 2005, 98, 113903.	1.1	6
88	A high magnetic field sensor based on magnetic tunnel junctions. EPJ Applied Physics, 2004, 28, 79-81.	0.3	9
89	Intrinsic thermally compensated field sensor based on single magnetic tunnel junctions. Applied Physics Letters, 2004, 84, 1204-1206.	1.5	6
90	Low-height sputter-deposited magnesium oxide tunnel barriers: experimental report and free electron modeling. European Physical Journal B, 2004, 40, 19-23.	0.6	7

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91	Magnetic origin of enhanced top exchange biasing in Py/IrMn/Py multilayers. Physical Review B, 2003, 68, .	1.1	34
92	Using antiferromagnetic/ferromagnetic bilayers as detection layers in magnetic tunnel junctions. Applied Physics Letters, 2003, 83, 4372-4374.	1.5	16
93	Top exchange biasing enhancement in X/IrMn/Py and X/IrMn/Co multilayers. , 0, , .		0