

# Mingzhong Wu

## List of Publications by Year in descending order

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98  
papers

4,529  
citations

126907

33  
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106344

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99  
all docs

99  
docs citations

99  
times ranked

3946  
citing authors

#	ARTICLE	IF	CITATIONS
1	Noninvasive measurements of spin transport properties of an antiferromagnetic insulator. Science Advances, 2022, 8, eabg8562.	10.3	15
2	Imaging of magnetic excitations in nanostructures with near-field microwave microscopy. Journal of Magnetism and Magnetic Materials, 2022, 546, 168870.	2.3	1
3	Large unidirectional spin Hall and Rashba-Edelstein magnetoresistance in topological insulator/magnetic insulator heterostructures. Applied Physics Reviews, 2022, 9, .	11.3	13
4	Magnetization and antiferromagnetic coupling of the interface between a 20Ånm $\text{Y}_3\text{Fe}_5\text{O}_{12}$ film	2.4	5
5	Topological Hall Effect in a Topological Insulator Interfaced with a Magnetic Insulator. Nano Letters, 2021, 21, 84-90.	9.1	28
6	Quantitative estimation of thermoelectric contributions in spin pumping signals through microwave photoresistance measurements. Physical Review B, 2021, 103, .	3.2	11
7	Large Damping Enhancement in Dirac-Semimetal-Ferromagnetic-Metal Layered Structures Caused by Topological Surface States. Advanced Functional Materials, 2021, 31, 2008411.	14.9	17
8	Quantum Sensing of Spin Fluctuations of Magnetic Insulator Films with Perpendicular Anisotropy. Physical Review Applied, 2021, 15, .	3.8	4
9	Switching of a Magnet by Spin-Orbit Torque from a Topological Dirac Semimetal. Advanced Materials, 2021, 33, e2005909.	21.0	21
10	Reconfigurable Spin-Wave Interferometer at the Nanoscale. Nano Letters, 2021, 21, 6237-6244.	9.1	20
11	Nonreciprocal coherent coupling of nanomagnets by exchange spin waves. Nano Research, 2021, 14, 2133-2138.	10.4	26
12	Ferromagnetic resonances in single-crystal yttrium iron garnet nanofilms fabricated by metal-organic decomposition. Applied Physics Letters, 2021, 119, .	3.3	3
13	Fingerprint of the inverse Rashba-Edelstein effect at heavy-metal/Cu interfaces. Physical Review B, 2020, 102, .	3.2	12
14	Electrical control of coherent spin rotation of a single-spin qubit. Npj Quantum Information, 2020, 6, .	6.7	19
15	Orbital reconstruction mediated giant vertical magnetization shift and insulator-to-metal transition in superlattices based on antiferromagnetic manganites. Physical Review B, 2020, 101, .	3.2	11
16	Changes of Magnetism in a Magnetic Insulator due to Proximity to a Topological Insulator. Physical Review Letters, 2020, 125, 017204.	7.8	26
17	Nanometer-Thick Yttrium Iron Garnet Films with Perpendicular Anisotropy and Low Damping. Physical Review Applied, 2020, 14, .	3.8	50
18	Chiral Spin-Wave Velocities Induced by All-Garnet Interfacial Dzyaloshinskii-Moriya Interaction in Ultrathin Yttrium Iron Garnet Films. Physical Review Letters, 2020, 124, 027203.	7.8	80

#	ARTICLE	IF	CITATIONS
19	Sputtering Growth of Low-Damping Yttrium-Iron-Garnet Thin Films. IEEE Magnetics Letters, 2020, 11, 1-5.	1.1	43
20	Brillouin light scattering of spin waves inaccessible with free-space light. Physical Review Research, 2020, 2, .	3.6	6
21	Spin transport in an insulating ferrimagnetic-antiferromagnetic-ferrimagnetic trilayer as a function of temperature. AIP Advances, 2019, 9, .	1.3	9
22	Magnetization switching using topological surface states. Science Advances, 2019, 5, eaaw3415.	10.3	65
23	Excitation of unidirectional exchange spin waves by a nanoscale magnetic grating. Physical Review B, 2019, 100, .	3.2	111
24	Broadband Optical Detection Using the Spin Seebeck Effect. Physical Review Applied, 2019, 12, .	3.8	5
25	Enhancement of perpendicular magnetic anisotropy and spin-orbit torque in Ta/Pt/Co/Ta multi-layered heterostructures through interfacial diffusion. Applied Physics Letters, 2019, 114, .	3.3	20
26	Current-controlled propagation of spin waves in antiparallel, coupled domains. Nature Nanotechnology, 2019, 14, 691-697.	31.5	71
27	Room-temperature spin-to-charge conversion in sputtered bismuth selenide thin films via spin pumping from yttrium iron garnet. Applied Physics Letters, 2019, 114, .	3.3	22
28	Interlayer Exchange Coupling in Magnetic Hard-Soft Bilayered Structures. Physical Review Applied, 2019, 11, .	3.8	7
29	Nonvolatile Electric Field Control of Ferromagnetic Resonance and Spin Pumping in Pt/YIG at Room Temperature. Advanced Electronic Materials, 2019, 5, 1800663	5.1	11
30	Structure and basal twinning of topological insulator $Bi_2Se_3$	2.4	12
31	Fermi level dependent spin pumping from a magnetic insulator into a topological insulator. Physical Review Research, 2019, 1, .	3.6	33
32	Long-distance propagation of short-wavelength spin waves. Nature Communications, 2018, 9, 738.	12.8	181
33	First harmonic measurements of the spin Seebeck effect. Applied Physics Letters, 2018, 113, .	3.3	13
34	Near- $T_c$ Ferromagnetic Resonance and Damping in $FePt$ -Based Heat-Assisted Magnetic Recording Media. Physical Review Applied, 2018, 10, .	3.8	15
35	Spontaneous Exact Spin-Wave Fractals in Magnonic Crystals. Physical Review Letters, 2018, 121, 107204.	7.8	22
36	Enhanced room-temperature spin Seebeck effect in a YIG/C60/Pt layered heterostructure. AIP Advances, 2018, 8, .	1.3	10

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37	Nontrivial Nature and Penetration Depth of Topological Surface States in $\text{SmB}_6$ Thin Films. Physical Review Letters, 2018, 120, 207206.	7.8	17
38	Strong Interlayer Magnon-Magnon Coupling in Magnetic Metal-Insulator Hybrid Nanostructures. Physical Review Letters, 2018, 120, 217202.	7.8	119
39	Determination of spin Hall angle and spin diffusion length in $\text{I}^2$ -phase-dominated tantalum. Physical Review Materials, 2018, 2, .	2.4	35
40	Spin transport in antiferromagnetic NiO and magnetoresistance in $\text{Y}_3\text{Fe}_5\text{O}_{12}/\text{NiO}/\text{Pt}$ structures. AIP Advances, 2017, 7, 055903.	1.3	30
41	Role of damping in spin Seebeck effect in yttrium iron garnet thin films. Science Advances, 2017, 3, e1601614.	10.3	42
42	Influence of heavy metal materials on magnetic properties of Pt/Co/heavy metal tri-layered structures. Applied Physics Letters, 2017, 110, .	3.3	26
43	Observation of Self-Cavitating Envelope Dispersive Shock Waves in Yttrium Iron Garnet Thin Films. Physical Review Letters, 2017, 119, 024101.	7.8	25
44	Magnetoelectric properties of lead-free $(80\text{Bi}0.5\text{Na}0.5\text{Ti}0.3-20\text{Bi}0.5\text{K}0.5\text{Ti}0.3)-\text{Ni}0.8\text{Zn}0.2\text{Fe}2\text{O}_4$ particulate composites prepared by <i>in situ</i> sol-gel. Journal of Applied Physics, 2017, 122, .	2.5	22
45	Foldover of nonlinear eigenmodes in magnetic thin film based feedback rings. Physical Review B, 2017, 95, .	3.2	13
46	Sputtering growth of $\text{Y}_3\text{Fe}_5\text{O}_{12}/\text{Pt}$ bilayers and spin transfer at $\text{Y}_3\text{Fe}_5\text{O}_{12}/\text{Pt}$ interfaces. APL Materials, 2017, 5, 126104.	5.1	16
47	Quantification of intergranular exchange coupling in CoPtCr-based perpendicular recording media via ferromagnetic resonance measurements. Applied Physics Letters, 2017, 111, .	3.3	2
48	Valley Polarization of Trions and Magnetoresistance in Heterostructures of $\text{MoS}_2$ and Yttrium Iron Garnet. ACS Nano, 2017, 11, 12257-12265.	14.6	35
49	Ultrabroadband spin-wave propagation in $\text{Co}$ thin films. Physical Review B, 2017, 96, .	2	11
50	Patterned growth of crystalline $\text{Y}_3\text{Fe}_5\text{O}_{12}$ nanostructures with engineered magnetic shape anisotropy. Applied Physics Letters, 2017, 110, .	3.3	34
51	Long-distance spin transport in a disordered magnetic insulator. Nature Physics, 2017, 13, 987-993.	16.7	69
52	Interface effects in nanometer-thick yttrium iron garnet films studied by magneto-optical spectroscopy. Applied Physics Letters, 2016, 108, .	3.3	28
53	Exquisite growth control and magnetic properties of yttrium iron garnet thin films. Applied Physics Letters, 2016, 108, .	3.3	55
54	Photo-spin-voltaic effect. Nature Physics, 2016, 12, 861-866.	16.7	52

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55	Surface-State-Dominated Spin-Charge Current Conversion in Topological-Insulator/Ferromagnetic-Insulator Heterostructures. <i>Physical Review Letters</i> , 2016, 117, 076601.	7.8	162
56	Spin-orbit torque-assisted switching in magnetic insulator thin films with perpendicular magnetic anisotropy. <i>Nature Communications</i> , 2016, 7, 12688.	12.8	85
57	Influence of Interface Structure on Magnetic Proximity Effect in Pt/Y <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> Heterostructures. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 8175-8183.	8.0	36
58	Observation of spin-wave dark soliton pairs in yttrium iron garnet thin films. <i>Physical Review B</i> , 2015, 91, .	3.2	10
59	Driving and detecting ferromagnetic resonance in insulators with the spin Hall effect. <i>Physical Review B</i> , 2015, 92, .	3.2	48
60	Optical spectroscopy of sputtered nanometer-thick yttrium iron garnet films. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	13
61	Formation of bright solitons from wave packets with repulsive nonlinearity. <i>New Journal of Physics</i> , 2014, 16, 053048.	2.9	11
62	High thermal stability and low Gilbert damping constant of CoFeB/MgO bilayer with perpendicular magnetic anisotropy by Al capping and rapid thermal annealing. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	14
63	Complex solitary wave dynamics, pattern formation and chaos in the gain-loss nonlinear Schrödinger equation. <i>New Journal of Physics</i> , 2014, 16, 023025.	2.9	9
64	Ferromagnetic resonance of sputtered yttrium iron garnet nanometer films. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	129
65	Damping in free layers of tunnel magneto-resistance readers. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	11
66	Nanometer-Thick Yttrium Iron Garnet Films With Extremely Low Damping. <i>IEEE Magnetics Letters</i> , 2014, 5, 1-4.	1.1	254
67	Observation of microwave-assisted magnetization reversal in perpendicular recording media. <i>Applied Physics Letters</i> , 2013, 103, 042413.	3.3	28
68	Damping in Yttrium Iron Garnet Nanoscale Films Capped by Platinum. <i>Physical Review Letters</i> , 2013, 111, 106601.	7.8	227
69	Tuning of magnetization relaxation in ferromagnetic thin films through seed layers. <i>Applied Physics Letters</i> , 2012, 100, 022403.	3.3	22
70	Growth and ferromagnetic resonance properties of nanometer-thick yttrium iron garnet films. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	210
71	Enhanced spin pumping at yttrium iron garnet/Au interfaces. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	154
72	Chaotic Spin-Wave Solitons in Magnetic Film Feedback Rings. <i>Physical Review Letters</i> , 2011, 107, 114102.	7.8	31

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73	Spin Pumping at the Magnetic Insulator (YIG)/Normal Metal (Au) Interfaces. <i>Physical Review Letters</i> , 2011, 107, 066604.	7.8	384
74	Electric control of magnetization relaxation in thin film magnetic insulators. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	47
75	Tuning of chaotic surface spin waves in a magnetic-film feedback ring via the ring gain. <i>Physical Review B</i> , 2011, 83, .	3.2	12
76	Electric-field control of ferromagnetic resonance in monolithic BaFe <sub>12</sub> O <sub>19</sub> /Ba <sub>0.5</sub> Sr <sub>0.5</sub> TiO <sub>3</sub> heterostructures. <i>Journal of Applied Physics</i> , 2010, 108, 043911.	2.5	21
77	Competition between pumping and damping in microwave-assisted magnetization reversal in magnetic films. <i>Physical Review B</i> , 2010, 81, .	3.2	19
78	Electric Tuning of Ferromagnetic Resonances in Hexagonal-Barium-Ferrite/Barium-Strontium-Titanate Heterostructures. <i>IEEE Magnetics Letters</i> , 2010, 1, 2500204-2500204.	1.1	3
79	Millimeter wave phase shifter based on ferromagnetic resonance in a hexagonal barium ferrite thin film. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	34
80	Observation of microwave-assisted magnetization reversal in Fe <sub>65</sub> Co <sub>35</sub> thin films through ferromagnetic resonance measurements. <i>Applied Physics Letters</i> , 2009, 95, 012504.	3.3	33
81	Molecular dynamics simulations on single-file diffusions: Effects of channel potential periods and particle-particle interactions. <i>Journal of Applied Physics</i> , 2009, 106, 084905.	2.5	4
82	Excitation of Chaotic Spin Waves through Modulational Instability. <i>Physical Review Letters</i> , 2009, 102, 237203.	7.8	30
83	Excitation of Chaotic Spin Waves in Magnetic Film Feedback Rings through Three-Wave Nonlinear Interactions. <i>Physical Review Letters</i> , 2009, 102, 207202.	7.8	19
84	Spin wave propagation in spatially nonuniform magnetic fields. <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	21
85	Coupled Modulational Instability of Copropagating Spin Waves in Magnetic Thin Films. <i>Physical Review Letters</i> , 2008, 101, 027206.	7.8	13
86	Mesopiezoresistive effects in double-barrier resonant tunneling structures. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	11
87	Experimental Observation of Fermi-Pasta-Ulam Recurrence in a Nonlinear Feedback Ring System. <i>Physical Review Letters</i> , 2007, 98, 047202.	7.8	44
88	Pressure and temperature tuning of the valence band offset in cubic superlattices: The effects of piezoelectric fields. <i>Journal of Applied Physics</i> , 2007, 102, 113703.	2.5	2
89	Cloning and trapping of magnetostatic spin-wave pulses by parametric pumping. <i>Physical Review B</i> , 2007, 76, .	3.2	15
90	Nonlinear Ferrite Film Microwave Signal Processing for Advanced Communications—Physics and Devices. <i>Ferroelectrics</i> , 2006, 342, 101-106.	0.6	6

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91	Ferromagnetic resonance linewidth in metallic thin films: Comparison of measurement methods. Journal of Applied Physics, 2006, 99, 093909.	2.5	487
92	Random Generation of Coherent Solitary Waves from Incoherent Waves. Physical Review Letters, 2006, 96, 227202.	7.8	33
93	Fast pulse-excited spin waves in yttrium iron garnet thin films. Journal of Applied Physics, 2006, 99, 013901.	2.5	16
94	Observation of Spin-Wave Soliton Fractals in Magnetic Film Active Feedback Rings. Physical Review Letters, 2006, 96, 187202.	7.8	56
95	Self generation of solitary chaotic spin wave pulses. , 2005, , .		1
96	Self-Generation of Chaotic Solitary Spin Wave Pulses in Magnetic Film Active Feedback Rings. Physical Review Letters, 2005, 95, 237202.	7.8	55
97	Spatial evolution of multi-peaked microwave magnetic envelope solitons in yttrium iron garnet thin films. Physical Review B, 2004, 70, .	3.2	17
98	Generation of Dark and Bright Spin Wave Envelope Soliton Trains through Self-Modulational Instability in Magnetic Films. Physical Review Letters, 2004, 93, 157207.	7.8	41