

# Xiuzhen Yu

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Doping Control of Magnetic Anisotropy for Stable Antiskyrmion Formation in Schreibersite (Fe,Ni) <sub>3</sub> P with <i>S</i> <sub>4</sub> symmetry. <i>Advanced Materials</i> , 2022, 34, e2108770.	11.1	15
2	Geometrically stabilized skyrmionic vortex in FeGe tetrahedral nanoparticles. <i>Nature Materials</i> , 2022, 21, 305-310.	13.3	11
3	Room-temperature antiskyrmions and sawtooth surface textures in a non-centrosymmetric magnet with S <sub>4</sub> symmetry. <i>Nature Materials</i> , 2021, 20, 335-340.	13.3	55
4	Heteroepitaxial growth of wide bandgap cuprous iodide films exhibiting clear free-exciton emission. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	10
5	Visualizing Pairs of Vortices and Antivortices of Electron Spins Using Ultimate Cryo-Lorentz TEM. <i>JPSJ News and Comments</i> , 2021, 18, 01.	0.2	2
6	Giant anomalous Hall effect from spin-chirality scattering in a chiral magnet. <i>Nature Communications</i> , 2021, 12, 317.	5.8	40
7	Néel-type skyrmions and their current-induced motion in van der Waals ferromagnet-based heterostructures. <i>Physical Review B</i> , 2021, 103, .	1.1	110
8	Nano-to-micro spatiotemporal imaging of magnetic skyrmion's life cycle. <i>Science Advances</i> , 2021, 7, .	4.7	21
9	Tunable Néel-Bloch Magnetic Twists in Fe <sub>3</sub> GeTe <sub>2</sub> with van der Waals Structure. <i>Advanced Functional Materials</i> , 2021, 31, 2103583.	7.8	35
10	Current-driven Dynamics of Magnetic Skyrmion Bunches. <i>Microscopy and Microanalysis</i> , 2021, 27, 382-383.	0.2	0
11	Real-space observations of 60-nm skyrmion dynamics in an insulating magnet under low heat flow. <i>Nature Communications</i> , 2021, 12, 5079.	5.8	27
12	Magnetic imaging of various topological spin textures and their dynamics. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 539, 168332.	1.0	10
13	In-Plane Magnetic Field-Driven Creation and Annihilation of Magnetic Skyrmion Strings in Nanostructures. <i>Advanced Functional Materials</i> , 2021, 31, 2008521.	7.8	13
14	Dynamic transition of current-driven single-skyrmion motion in a room-temperature chiral-lattice magnet. <i>Nature Communications</i> , 2021, 12, 6797.	5.8	26
15	Bloch Lines Constituting Antiskyrmions Captured via Differential Phase Contrast. <i>Advanced Materials</i> , 2020, 32, e2004206.	11.1	21
16	Combing the helical phase of chiral magnets with electric currents. <i>Physical Review B</i> , 2020, 102, .	1.1	14
17	Real-Space Observation of Topological Defects in Extended Skyrmion-Strings. <i>Nano Letters</i> , 2020, 20, 7313-7320.	4.5	26
18	Quantitative Measurement of Topological Spin Textures via Differential Phase Contrast. <i>Microscopy and Microanalysis</i> , 2020, 26, 614-616.	0.2	0

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19	Nanometric square skyrmion lattice in a centrosymmetric tetragonal magnet. <i>Nature Nanotechnology</i> , 2020, 15, 444-449.	15.6	192
20	Molecular beam epitaxy of high-quality CuI thin films on a low temperature grown buffer layer. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	29
21	Motion tracking of 80-nm-size skyrmions upon directional current injections. <i>Science Advances</i> , 2020, 6, eaaz9744.	4.7	37
22	Controlled transformation of skyrmions and antiskyrmions in a non-centrosymmetric magnet. <i>Nature Nanotechnology</i> , 2020, 15, 181-186.	15.6	110
23	Electron Holography and Magnetotransport Measurements Reveal Stabilized Magnetic Skyrmions in Fe <sub>1-x</sub> Co <sub>x</sub> Si Nanowires. <i>ACS Nano</i> , 2019, 13, 7833-7841.	7.3	20
24	In-Plane Magnetic Field Evaluation with 0.47-nm Resolution by Aberration-Corrected 1.2-MV Holography Electron Microscope. <i>Microscopy and Microanalysis</i> , 2019, 25, 54-55.	0.2	2
25	Real-Space Observation of a Transformation from Antiskyrmion to Skyrmion by Lorentz TEM. <i>Microscopy and Microanalysis</i> , 2019, 25, 1840-1841.	0.2	6
26	Imaging Magnetic Vortices Including Skyrmions by Lorentz TEM and Differential Phase-Contrast Microscopy. <i>Microscopy and Microanalysis</i> , 2019, 25, 28-29.	0.2	1
27	Quantum anomalous Hall effect driven by magnetic proximity coupling in all-telluride based heterostructure. <i>Applied Physics Letters</i> , 2019, 115, .	1.5	67
28	Topological transitions among skyrmion- and hedgehog-lattice states in cubic chiral magnets. <i>Nature Communications</i> , 2019, 10, 1059.	5.8	112
29	Skyrmion phase and competing magnetic orders on a breathing kagomé lattice. <i>Nature Communications</i> , 2019, 10, 5831.	5.8	214
30	Low-Field Bi-Skyrmion Formation in a Noncentrosymmetric Chimney Ladder Ferromagnet. <i>Physical Review Letters</i> , 2018, 120, 037203.	2.9	25
31	Transformation between meron and skyrmion topological spin textures in a chiral magnet. <i>Nature</i> , 2018, 564, 95-98.	13.7	274
32	Controlling the helicity of magnetic skyrmions in a $\text{Mn-type}$ high-temperature chiral magnet. <i>Physical Review B</i> , 2018, 98, .	1.1	32
33	Disordered skyrmion phase stabilized by magnetic frustration in a chiral magnet. <i>Science Advances</i> , 2018, 4, eaar7043.	4.7	83
34	Aggregation and collapse dynamics of skyrmions in a non-equilibrium state. <i>Nature Physics</i> , 2018, 14, 832-836.	6.5	54
35	Emergence of Topological Hall Effect in Half-Metallic Manganite Thin Films by Tuning Perpendicular Magnetic Anisotropy. <i>Journal of the Physical Society of Japan</i> , 2018, 87, 074704.	0.7	34
36	Deformation of Topologically-Protected Supercooled Skyrmions in a Thin Plate of Chiral Magnet $\text{Co}_8\text{Zn}_8\text{Mn}_4$ . <i>Nano Letters</i> , 2017, 17, 1637-1641.	4.5	42

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37	Current-Induced Nucleation and Annihilation of Magnetic Skyrmions at Room Temperature in a Chiral Magnet. <i>Advanced Materials</i> , 2017, 29, 1606178.	11.1	53
38	Variation of Topology in Magnetic Bubbles in a Colossal Magnetoresistive Manganite. <i>Advanced Materials</i> , 2017, 29, 1603958.	11.1	92
39	Magnetic field observations in CoFeB/Ta layers with 0.67-nm resolution by electron holography. <i>Scientific Reports</i> , 2017, 7, 16598.	1.6	29
40	Thermally activated helicity reversals of skyrmions. <i>Physical Review B</i> , 2016, 93, .	1.1	47
41	Heat-Treatment-Induced Switching of Magnetic States in the Doped Polar Semiconductor $\text{Ge}_{1-x}\text{Mn}_x\text{Te}$ . <i>Scientific Reports</i> , 2016, 6, 25748.	1.6	15
42	Lorentz transmission electron microscopy on nanometric magnetic bubbles and skyrmions in bilayered manganites $\text{La}_{1.2}\text{Sr}_{1.8}(\text{Mn}_{1-y}\text{Ru}_y)_2\text{O}_7$ with controlled magnetic anisotropy. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	30
43	Real-Space Observation of Short-Period Cubic Lattice of Skyrmions in MnGe. <i>Nano Letters</i> , 2015, 15, 5438-5442.	4.5	160
44	A new class of chiral materials hosting magnetic skyrmions beyond room temperature. <i>Nature Communications</i> , 2015, 6, 7638.	5.8	411
45	Variation of skyrmion forms and their stability in MnSi thin plates. <i>Physical Review B</i> , 2015, 91, .	1.1	69
46	Reply. <i>Physical Review Letters</i> , 2014, 112, 059702.	2.9	7
47	Biskyrmion states and their current-driven motion in a layered manganite. <i>Nature Communications</i> , 2014, 5, 3198.	5.8	241
48	Thermally driven ratchet motion of a skyrmion microcrystal and topological magnon Hall effect. <i>Nature Materials</i> , 2014, 13, 241-246.	13.3	268
49	Observation of the magnetic flux and three-dimensional structure of skyrmion lattices by electron holography. <i>Nature Nanotechnology</i> , 2014, 9, 337-342.	15.6	160
50	Crystal chirality and skyrmion helicity in MnSi and (Fe, Co)Si as determined by transmission electron microscopy. <i>Physical Review B</i> , 2013, 88, .	1.1	38
51	Observation of the Magnetic Skyrmion Lattice in a MnSi Nanowire by Lorentz TEM. <i>Nano Letters</i> , 2013, 13, 3755-3759.	4.5	110
52	Towards control of the size and helicity of skyrmions in helimagnetic alloys by spin-orbit coupling. <i>Nature Nanotechnology</i> , 2013, 8, 723-728.	15.6	264
53	Robust Formation of Skyrmions and Topological Hall Effect Anomaly in Epitaxial Thin Films of MnSi. <i>Physical Review Letters</i> , 2013, 110, 117202.	2.9	269
54	Spontaneous B-site order and metallic ferrimagnetism in $\text{LaSrVMoO}_6$ grown by pulsed laser deposition. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	7

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55	Gauge fields in real and momentum spaces in magnets: monopoles and skyrmions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 5806-5819.	1.6	69
56	Observation of Skyrmions in a Multiferroic Material. Science, 2012, 336, 198-201.	6.0	1,125
57	Real-Space Observation of Skyrmion Lattice in Helimagnet MnSi Thin Samples. Nano Letters, 2012, 12, 1673-1677.	4.5	284
58	Skyrmion flow near room temperature in an ultralow current density. Nature Communications, 2012, 3, 988.	5.8	709
59	Magnetic stripes and skyrmions with helicity reversals. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8856-8860.	3.3	289
60	Coupling between Magnetic and Crystallographic Domains in Ordered Double Perovskite. Nihon Kessho Gakkaishi, 2011, 53, 119-123.	0.0	0
61	Near room-temperature formation of a skyrmion crystal in thin-films of the helimagnet FeGe. Nature Materials, 2011, 10, 106-109.	13.3	1,374
62	Editorial Note: Lattice modulation induced by magnetic order in the magnetoelectric helimagnet Ba <sub>0.5</sub> Sr <sub>1.5</sub> Zn <sub>2</sub> Fe <sub>12</sub> O <sub>22</sub> [Phys. Rev. B 83, 130401(R) (2011)]. Physical Review B, 2011, 83, .	1.1	0
63	$\frac{1}{a^2}$ Lattice modulation induced by magnetic order in the magnetoelectric helimagnet Ba <sub>0.5</sub> Sr <sub>1.5</sub> Zn <sub>2</sub> Fe <sub>12</sub> O <sub>22</sub> . Physical Review B, 2011, 83, .	1.1	11
64	Lattice modulation induced by magnetic order in the magnetoelectric helimagnet Ba <sub>0.5</sub> Sr <sub>1.5</sub> Zn <sub>2</sub> Fe <sub>12</sub> O <sub>22</sub> . Physical Review B, 2011, 83, .	1.1	11
65	Observation of Skyrmion Lattice by Lorentz Transmission Electron Microscopy. Nihon Kessho Gakkaishi, 2011, 53, 274-279.	0.0	0
66	Local crystal structure analysis with several picometer precision using scanning transmission electron microscopy. Ultramicroscopy, 2010, 110, 778-782.	0.8	105
67	Real-space observation of a two-dimensional skyrmion crystal. Nature, 2010, 465, 901-904.	13.7	2,626
68	Microcalorimeter-type energy dispersive X-ray spectrometer for a transmission electron microscope. Journal of Electron Microscopy, 2010, 59, 17-26.	0.9	30
69	Relationship between magnetic domain configuration and crystallographic orientation in a colossal magnetoresistive material. Journal of Electron Microscopy, 2010, 59, S95-S100.	0.9	1
70	Possible origins of the magnetoresistance gain in colossal magnetoresistive oxide La <sub>0.69</sub> Ca <sub>0.31</sub> MnO <sub>3</sub> : Structure fluctuation and pinning effect on magnetic domain walls. Applied Physics Letters, 2009, 95, 092504.	1.5	8
71	Imaging of variation in charge/orbital/spin ordering structure in Sm <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> (x=0.55 and 0.6). Applied Physics Letters, 2009, 94, 082509.	1.5	7
72	Phase competition and long-period charge/orbital ordering in the overdoped distorted perovskite manganites R <sub>1-x</sub> R <sub>x</sub> MnO <sub>3</sub> (R=La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Y). Physical Review B, 2009, 80, .	1.1	9

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73	Enhancement in ordering of Fe <sub>50</sub> Pt <sub>50</sub> film caused by Cr and Cu additives. Journal of Applied Physics, 2009, 106, 033907.	1.1	21
74	Anomalously large anisotropic magnetoresistance in a perovskite manganite. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14224-14229.	3.3	74
75	Dopant-Dependent Impact of Mn-Site Doping on Critical-State Manganites $R_{1-x}Sr_xMnO_3$ ( $R = La, Nd, Sm, \text{ and } Gd$ ). Journal of the Physical Society of Japan, 2008, 77, 124712.	0.7	9
76	Effect of Quenched Disorder on Charge Ordering Structure in RE <sub>1-67</sub> AE <sub>0.33</sub> NiO <sub>4</sub> (RE = La, Pr, Nd, Sm; AE) $T_{CO} \sim 0.07 T_{BT_2}$ Overlock		
77	Strong pinning effect and magnetic nanodomain formation by coupling between magnetic and crystallographic domains in the ordered double perovskite Ba <sub>2</sub> FeMoO <sub>6</sub> . Physical Review B, 2007, 75, .	1.1	39
78	Correlation of electronic structure and ordered charge and orbital patterns for single-layered manganites in a wide hole-doping range (0 $\leq x \leq 1$ ). Physical Review B, 2007, 75, .	1.1	17
79	Direct observation of the bandwidth-disorder induced variation of charge/orbital ordering structure in RE <sub>0.5</sub> (Ca <sub>1-y</sub> Sr <sub>y</sub> ) <sub>1.5</sub> MnO <sub>4</sub> . Journal of Physics Condensed Matter, 2007, 19, 172203.	0.7	6
80	Coexistence of long-ranged charge and orbital order and spin-glass state in single-layered manganites with weak quenched disorder. Europhysics Letters, 2007, 80, 37001.	0.7	8
81	Variation of charge/orbital ordering in layered manganite Pr <sub>1-x</sub> Ca <sub>1+x</sub> MnO <sub>4</sub> investigated by transmission electron microscopy. Physical Review B, 2007, 75, .	1.1	21
82	Analyses of Superstructure of Layered Perovskite Manganites in Charge/Orbital Ordering State by Low-Temperature TEM. Nihon Kessho Gakkaishi, 2007, 49, 300-306.	0.0	0
83	Bandwidth-disorder phase diagram of half-doped layered manganites. Physical Review B, 2006, 74, .	1.1	31
84	TEM study of the influence of antisite defects on magnetic domain structures in double perovskite Ba <sub>2</sub> FeMoO <sub>6</sub> . Journal of Electron Microscopy, 2005, 54, 61-65.	0.9	19
85	Impurity-induced transition to a Mott insulator in Sr <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> . Physical Review B, 2005, 72, .	1.1	38
86	Observation of Magnetic Ripple and Nanowidth Domains in a Layered Ferromagnet. Physical Review Letters, 2005, 95, 227204.	2.9	26
87	X-Ray Directional Dichroism of a Polar Ferrimagnet. Physical Review Letters, 2004, 92, 137401.	2.9	113
88	Metallic Ferromagnet with Square-Lattice CoO <sub>2</sub> Sheets. Physical Review Letters, 2004, 93, 167202.	2.9	108
89	Magnetization-Induced Second Harmonic Generation in a Polar Ferromagnet. Physical Review Letters, 2004, 92, 047401.	2.9	69