

# Xiuzhen Yu

## List of Publications by Year in descending order

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89  
papers

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citations

87843

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83  
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93  
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93  
docs citations

93  
times ranked

5829  
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-space observation of a two-dimensional skyrmion crystal. <i>Nature</i> , 2010, 465, 901-904.	13.7	2,626
2	Near room-temperature formation of a skyrmion crystal in thin-films of the helimagnet FeGe. <i>Nature Materials</i> , 2011, 10, 106-109.	13.3	1,374
3	Observation of Skyrmions in a Multiferroic Material. <i>Science</i> , 2012, 336, 198-201.	6.0	1,125
4	Skyrmion flow near room temperature in an ultralow current density. <i>Nature Communications</i> , 2012, 3, 988.	5.8	709
5	A new class of chiral materials hosting magnetic skyrmions beyond room temperature. <i>Nature Communications</i> , 2015, 6, 7638.	5.8	411
6	Magnetic stripes and skyrmions with helicity reversals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 8856-8860.	3.3	289
7	Real-Space Observation of Skyrmion Lattice in Helimagnet MnSi Thin Samples. <i>Nano Letters</i> , 2012, 12, 1673-1677.	4.5	284
8	Transformation between meron and skyrmion topological spin textures in a chiral magnet. <i>Nature</i> , 2018, 564, 95-98.	13.7	274
9	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
10	Thermally driven ratchet motion of a skyrmion microcrystal and topological magnon Hall effect. <i>Nature Materials</i> , 2014, 13, 241-246.	13.3	268
11	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
12	Biskyrmion states and their current-driven motion in a layered manganite. <i>Nature Communications</i> , 2014, 5, 3198.	5.8	241
13	Skyrmion phase and competing magnetic orders on a breathing kagomé lattice. <i>Nature Communications</i> , 2019, 10, 5831.	5.8	214
14	Nanometric square skyrmion lattice in a centrosymmetric tetragonal magnet. <i>Nature Nanotechnology</i> , 2020, 15, 444-449.	15.6	192
15	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
16	Real-Space Observation of Short-Period Cubic Lattice of Skyrmions in MnGe. <i>Nano Letters</i> , 2015, 15, 5438-5442.	4.5	160
17	X-Ray Directional Dichroism of a Polar Ferrimagnet. <i>Physical Review Letters</i> , 2004, 92, 137401.	2.9	113
18	Topological transitions among skyrmion- and hedgehog-lattice states in cubic chiral magnets. <i>Nature Communications</i> , 2019, 10, 1059.	5.8	112

#	ARTICLE	IF	CITATIONS
19	Observation of the Magnetic Skyrmion Lattice in a MnSi Nanowire by Lorentz TEM. Nano Letters, 2013, 13, 3755-3759.	4.5	110
20	Controlled transformation of skyrmions and antiskyrmions in a non-centrosymmetric magnet. Nature Nanotechnology, 2020, 15, 181-186.	15.6	110
21	Néel-type skyrmions and their current-induced motion in van der Waals ferromagnet-based heterostructures. Physical Review B, 2021, 103, .	1.1	110
22	Metallic Ferromagnet with Square-Lattice CoO <sub>2</sub> Sheets. Physical Review Letters, 2004, 93, 167202.	2.9	108
23	Local crystal structure analysis with several picometer precision using scanning transmission electron microscopy. Ultramicroscopy, 2010, 110, 778-782.	0.8	105
24	Variation of Topology in Magnetic Bubbles in a Colossal Magnetoresistive Manganite. Advanced Materials, 2017, 29, 1603958.	11.1	92
25	Disordered skyrmion phase stabilized by magnetic frustration in a chiral magnet. Science Advances, 2018, 4, eaar7043.	4.7	83
26	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
27	Magnetization-Induced Second Harmonic Generation in a Polar Ferromagnet. Physical Review Letters, 2004, 92, 047401.	2.9	69
28	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
29	Variation of skyrmion forms and their stability in MnSi thin plates. Physical Review B, 2015, 91, .	1.1	69
30	Quantum anomalous Hall effect driven by magnetic proximity coupling in all-telluride based heterostructure. Applied Physics Letters, 2019, 115, .	1.5	67
31	Room-temperature antiskyrmions and sawtooth surface textures in a non-centrosymmetric magnet with S <sub>4</sub> symmetry. Nature Materials, 2021, 20, 335-340.	13.3	55
32	Aggregation and collapse dynamics of skyrmions in a non-equilibrium state. Nature Physics, 2018, 14, 832-836.	6.5	54
33	Current-Induced Nucleation and Annihilation of Magnetic Skyrmions at Room Temperature in a Chiral Magnet. Advanced Materials, 2017, 29, 1606178.	11.1	53
34	Thermally activated helicity reversals of skyrmions. Physical Review B, 2016, 93, .	1.1	47
35	Deformation of Topologically-Protected Supercooled Skyrmions in a Thin Plate of Chiral Magnet Co <sub>8</sub> Zn <sub>8</sub> Mn <sub>4</sub> . Nano Letters, 2017, 17, 1637-1641.	4.5	42
36	Giant anomalous Hall effect from spin-chirality scattering in a chiral magnet. Nature Communications, 2021, 12, 317.	5.8	40

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37	Strong pinning effect and magnetic nanodomain formation by coupling between magnetic and crystallographic domains in the ordered double perovskite $\text{Ba}_2\text{FeMoO}_6$ . <i>Physical Review B</i> , 2007, 75, .	1.1	39
38	Impurity-induced transition to a Mott insulator in $\text{Sr}_3\text{Ru}_2\text{O}_7$ . <i>Physical Review B</i> , 2005, 72, .	1.1	38
39	Crystal chirality and skyrmion helicity in $\text{MnSi}$ and $(\text{Fe}, \text{Co})\text{Si}$ as determined by transmission electron microscopy. <i>Physical Review B</i> , 2013, 88, .	1.1	38
40	Motion tracking of 80-nm-size skyrmions upon directional current injections. <i>Science Advances</i> , 2020, 6, eaaz9744.	4.7	37
41	Tunable Néel-Bloch Magnetic Twists in $\text{Fe}_3\text{GeTe}_2$ with van der Waals Structure. <i>Advanced Functional Materials</i> , 2021, 31, 2103583.	7.8	35
42	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
43	Controlling the helicity of magnetic skyrmions in a $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi}> \hat{I}^2 \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ -Mn-type high-temperature chiral magnet. <i>Physical Review B</i> , 2018, 98, .	1.1	32
44	Bandwidth-disorder phase diagram of half-doped layered manganites. <i>Physical Review B</i> , 2006, 74, .	1.1	31
45	Microcalorimeter-type energy dispersive X-ray spectrometer for a transmission electron microscope. <i>Journal of Electron Microscopy</i> , 2010, 59, 17-26.	0.9	30
46	Lorentz transmission electron microscopy on nanometric magnetic bubbles and skyrmions in bilayered manganites $\text{La}_{1.2}\text{Sr}_{1.8}(\text{Mn}_{1-\hat{y}}\text{Ru})_2\text{O}_7$ with controlled magnetic anisotropy. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	30
47	Magnetic field observations in $\text{CoFeB}/\text{Ta}$ layers with 0.67-nm resolution by electron holography. <i>Scientific Reports</i> , 2017, 7, 16598.	1.6	29
48	Molecular beam epitaxy of high-quality $\text{CuI}$ thin films on a low temperature grown buffer layer. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	29
49	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
50	Observation of Magnetic Ripple and Nanowidth Domains in a Layered Ferromagnet. <i>Physical Review Letters</i> , 2005, 95, 227204.	2.9	26
51	Real-Space Observation of Topological Defects in Extended Skyrmion-Strings. <i>Nano Letters</i> , 2020, 20, 7313-7320.	4.5	26
52	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
53	Low-Field Bi-Skyrmion Formation in a Noncentrosymmetric Chimney Ladder Ferromagnet. <i>Physical Review Letters</i> , 2018, 120, 037203.	2.9	25
54	Variation of charge/orbital ordering in layered manganite $\text{Pr}_{1-\hat{x}}\text{Ca}_{1+\hat{x}}\text{MnO}_4$ investigated by transmission electron microscopy. <i>Physical Review B</i> , 2007, 75, .	1.1	21

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55	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
56	Bloch Lines Constituting Antiskyrmions Captured via Differential Phase Contrast. Advanced Materials, 2020, 32, e2004206.	11.1	21
57	Nano-to-micro spatiotemporal imaging of magnetic skyrmion's life cycle. Science Advances, 2021, 7, .	4.7	21
58	Electron Holography and Magnetotransport Measurements Reveal Stabilized Magnetic Skyrmions in Fe <sub>x</sub> Co <sub>x</sub> Si Nanowires. ACS Nano, 2019, 13, 7833-7841.	7.3	20
59	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
60	Correlation of electronic structure and ordered charge and orbital patterns for single-layered manganites in a wide hole-doping range(0<math>x</math>1). Physical Review B, 2007, 75, .	1.1	17
61	Heat-Treatment-Induced Switching of Magnetic States in the Doped Polar Semiconductor Ge <sub>1-x</sub> MnxTe. Scientific Reports, 2016, 6, 25748.	1.6	15
62	Doping Control of Magnetic Anisotropy for Stable Antiskyrmion Formation in Schreibersite (Fe,Ni) <sub>3</sub> P with S <sub>4</sub> symmetry. Advanced Materials, 2022, 34, e2108770.	11.1	15
63	Combining the helical phase of chiral magnets with electric currents. Physical Review B, 2020, 102, .	1.1	14
64	In-Plane Magnetic Field-Driven Creation and Annihilation of Magnetic Skyrmion Strings in Nanostructures. Advanced Functional Materials, 2021, 31, 2008521.	7.8	13
65	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
66	Geometrically stabilized skyrmionic vortex in FeGe tetrahedral nanoparticles. Nature Materials, 2022, 21, 305-310.	13.3	11
67	Heteroepitaxial growth of wide bandgap cuprous iodide films exhibiting clear free-exciton emission. Applied Physics Letters, 2021, 118, .	1.5	10
68	Magnetic imaging of various topological spin textures and their dynamics. Journal of Magnetism and Magnetic Materials, 2021, 539, 168332.	1.0	10
69	Dopant-Dependent Impact of Mn-Site Doping on Critical-State Manganites R <sub>0.6</sub> Sr <sub>0.4</sub> MnO <sub>3</sub> (R=La, Nd, Sm, and Gd). Journal of the Physical Society of Japan, 2008, 77, 124712.	0.7	9
70	Phase competition and long-period charge/orbital ordering in the overdoped distorted perovskite manganites $R_{1-x}MnO_3$ Physical Review B, 2009, 80, .	1.1	8
71	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
72	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

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73	charge modulations in the ferromagnetic insulating state of lightly doped La <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> . Applied Physics Letters, 2009, 94, 082509.	1.5	7
74	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
75	Spontaneous B-site order and metallic ferrimagnetism in LaSrVMoO <sub>6</sub> grown by pulsed laser deposition. Applied Physics Letters, 2013, 102, .	1.5	7
76	Li et al. Reply. Physical Review Letters, 2014, 112, 059702.	2.9	7
77	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
78	Real-Space Observation of a Transformation from Antiskyrmion to Skyrmion by Lorentz TEM. Microscopy and Microanalysis, 2019, 25, 1840-1841.	0.2	6
79	Effect of Quenched Disorder on Charge Ordering Structure in RE <sub>1-67A</sub> E <sub>0.33</sub> NiO <sub>4</sub> (RE = La, Pr, Nd, Sm; AE) Tj ETQq <sub>1,0,7</sub> 0.7843 <sub>2</sub> 14 rgBT C	0.7	6
80	In-Plane Magnetic Field Evaluation with 0.47-nm Resolution by Aberration-Corrected 1.2-MV Holography Electron Microscope. Microscopy and Microanalysis, 2019, 25, 54-55.	0.2	2
81	Visualizing Pairs of Vortices and Antivortices of Electron Spins Using Ultimate Cryo-Lorentz TEM. JPSJ News and Comments, 2021, 18, 01.	0.2	2
82	Relationship between magnetic domain configuration and crystallographic orientation in a colossal magnetoresistive material. Journal of Electron Microscopy, 2010, 59, S95-S100.	0.9	1
83	Imaging Magnetic Vortices Including Skyrmions by Lorentz TEM and Differential Phase-Contrast Microscopy. Microscopy and Microanalysis, 2019, 25, 28-29.	0.2	1
84	Coupling between Magnetic and Crystallographic Domains in Ordered Double Perovskite. Nihon Kessho Gakkaishi, 2011, 53, 119-123.	0.0	0
85	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
86	Quantitative Measurement of Topological Spin Textures via Differential Phase Contrast. Microscopy and Microanalysis, 2020, 26, 614-616.	0.2	0
87	Current-driven Dynamics of Magnetic Skyrmion Bunches. Microscopy and Microanalysis, 2021, 27, 382-383.	0.2	0
88	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
89	Observation of Skyrmion Lattice by Lorentz Transmission Electron Microscopy. Nihon Kessho Gakkaishi, 2011, 53, 274-279.	0.0	0