Haifeng Du

List of Publications by Year in descending order

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95	3,794	126907	133252
papers	citations	33 h-index	59 g-index

97	97	97	4109
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cooperative control of perpendicular magnetic anisotropy via crystal structure and orientation in freestanding SrRuO3 membranes. Npj Flexible Electronics, 2022, 6, .	10.7	21
2	Electrical manipulation of skyrmions in a chiral magnet. Nature Communications, 2022, 13, 1593.	12.8	51
3	Visualizing Emergent Magnetic Flux of Antiskyrmions in Mn_{1.4}PtSn Magnet. Advanced Functional Materials, 2022, 32, .	14.9	5
4	Two-dimensional characterization of three-dimensional magnetic bubbles in Fe3Sn2 nanostructures. National Science Review, 2021, 8, nwaa200.	9.5	35
5	Creation of a Chiral Bobber Lattice in Helimagnet-Multilayer Heterostructures. Physical Review Letters, 2021, 126, 017204.	7.8	20
6	Unidirectional current-driven toron motion in a cylindrical nanowire. Applied Physics Letters, 2021, 118, .	3.3	7
7	Electric-field control of skyrmions in multiferroic heterostructure via magnetoelectric coupling. Nature Communications, 2021, 12, 322.	12.8	83
8	NÃ©elâ€Type Elliptical Skyrmions in a Laterally Asymmetric Magnetic Multilayer. Advanced Materials, 2021, 33, e2006924.	21.0	32
9	Broken-Gap PtS₂/WSe₂ van der Waals Heterojunction with Ultrahigh Reverse Rectification and Fast Photoresponse. ACS Nano, 2021, 15, 8328-8337.	14.6	102
10	Two-dimensional SnO/SnO2 heterojunctions for electromagnetic wave absorption. Chemical Engineering Journal, 2021, 411, 128445.	12.7	62
11	Possible Topological Hall Effect above Room Temperature in Layered Cr_{1.2}Te₂ Ferromagnet. Nano Letters, 2021, 21, 4280-4286.	9.1	35
12	Magnetic Domain Structure in Ferromagnetic Kagome Metal DyMn6Sn6. Frontiers in Physics, 2021, 9, .	2.1	4
13	Exchange bias and spinâ€“orbit torque in the Fe3GeTe2-based heterostructures prepared by vacuum exfoliation approach. Applied Physics Letters, 2021, 118, .	3.3	27
14	Effects of tilted magnetocrystalline anisotropy on magnetic domains in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> thin plates. Physical Review B, 2021, 103, .	3.2	11
15	Asymmetric interfaces and high-TC ferromagnetic phase in La0.67Ca0.33MnO3/SrRuO3 superlattices. Nano Research, 2021, 14, 3621-3628.	10.4	6
16	Critical behavior of the magnetic Weyl semimetal PrAlGe. Physical Review B, 2021, 103, .	3.2	16
17	Stabilization and topological transformation of magnetic bubbles in disks of a kagome magnet. Applied Physics Letters, 2021, 119, 012402.	3.3	6
18	Currentâ€Controlled Topological Magnetic Transformations in a Nanostructured Kagome Magnet. Advanced Materials, 2021, 33, e2101610.	21.0	20

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19	Magnetic domains in a uniaxial magnet Dy3Al2. Applied Physics Letters, 2021, 119, 032404.	3.3	2
20	Structural, Magnetic, and Low-Temperature Electrical Transport Properties of YIG Thin Films with Heavily Reduced Oxygen Contents. ACS Applied Electronic Materials, 2021, 3, 3313-3320.	4.3	3
21	Manipulating density of magnetic skyrmions via multilayer repetition and thermal annealing. Physical Review B, 2021, 104, .	3.2	12
22	Magnetic skyrmion bundles and their current-driven dynamics. Nature Nanotechnology, 2021, 16, 1086-1091.	31.5	110
23	Anisotropy engineering of metal organic framework derivatives for effective electromagnetic wave absorption. Carbon, 2021, 181, 48-57.	10.3	37
24	Currentâ€Controlled Topological Magnetic Transformations in a Nanostructured Kagome Magnet (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10	21.0	1
25	Magnetic skyrmion braids. Nature Communications, 2021, 12, 5316.	12.8	22
26	Current-induced dynamics and tunable spectra of a magnetic chiral bobber. Physical Review B, 2021, 104, .	3.2	3
27	Inâ€Plane Magnetic Fieldâ€Driven Creation and Annihilation of Magnetic Skyrmion Strings in Nanostructures. Advanced Functional Materials, 2021, 31, 2008521.	14.9	13
28	Current-driven transformations of a skyrmion tube and a bobber in stepped nanostructures of chiral magnets. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	5.1	17
29	Dynamics of interstitial skyrmions in the presence of temperature gradients. Physical Review B, 2021, 104, .	3.2	4
30	Target Bubbles in Fe₃Sn₂ Nanodisks at Zero Magnetic Field. ACS Nano, 2020, 14, 10986-10992.	14.6	31
31	Robust nature of the chiral spin helix in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Cr</mml:mi><mml:msub><mml:mi>Nb</mml:mi><mml:mn mathvariant="normal">S</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:mrow></mml:math> nanostructures studied by off-axis electron holography. Physical Review B, 2020, 102, .	3.2	8
32	Field-induced tricritical behavior in the NÃ©el-type skyrmion host GaV4S8. Physical Review B, 2020, 102, .	3.2	3
33	Layer-by-layer epitaxial growth of monoclinic SrIrO3 thin films on (111)-oriented SrTiO3 through interface engineering. Thin Solid Films, 2020, 709, 138119.	1.8	2
34	Direct visualization of magnetic domain wall motion in Nd-Fe-B magnets by alternating magnetic force microscopy using Co-GdO superparamagnetic tip. Ultramicroscopy, 2020, 212, 112980.	1.9	2
35	High Spin Hall Conductivity in Largeâ€Area Typeâ€II Dirac Semimetal PtTe₂. Advanced Materials, 2020, 32, e2000513.	21.0	117
36	A FinFET with one atomic layer channel. Nature Communications, 2020, 11, 1205.	12.8	83

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37	Field and temperature dependence of the skyrmion lattice phase in chiral magnet membranes. Physical Review B, 2020, 101, .	3.2	13
38	Very large Dzyaloshinskii-Moriya interaction in two-dimensional Janus manganese dichalcogenides and its application to realize skyrmion states. Physical Review B, 2020, 101, .	3.2	156
39	Lorentz transmission electron microscopy for magnetic skyrmions imaging*. Chinese Physics B, 2019, 28, 087503.	1.4	34
40	Magnetic anisotropy and topological Hall effect in the trigonal chromium tellurides <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cr</mml:mi><mml:mn>52</mml:mn></mml:msub></mml:r Physical Review B, 2019, 100, .	3.2	48
41	Electrical Detection of Magnetic Skyrmions. Journal of Low Temperature Physics, 2019, 197, 321-336.	1.4	22
42	Fe-doping induced suppression of the second magnetic transition in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:mi mathvariant="normal">R</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant	3.2	2
43	Magnetostriction of helimagnets in the skyrmion crystal phase. New Journal of Physics, 2019, 21, 123052.	2.9	3
44	Quantification of Magnetic Surface and Edge States in an FeGe Nanostripe by Off-Axis Electron Holography. Physical Review Letters, 2018, 120, 167204.	7.8	33
45	Experimental observation of chiral magnetic bobbers in B20-type FeGe. Nature Nanotechnology, 2018, 13, 451-455.	31.5	243
46	Superconducting properties of molybdenum ruthenium alloy Mo0.63Ru0.37. European Physical Journal B, 2018, 91, 1.	1.5	3
47	3D-Heisenberg magnetic coupling in the skyrmion system Fe1.5â^'Co Rh0.5Mo3N (<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock Journal of Alloys and Compounds, 2018, 739, 85-91.	5.5	4
48	Magnetic reversal in Sr4Ru3O10 nanosheets probed by anisotropic magnetoresistance. Physical Review B, 2018, 98, .	3.2	11
49	Interaction of Individual Skyrmions in a Nanostructured Cubic Chiral Magnet. Physical Review Letters, 2018, 120, 197203.	7.8	88
50	Aspect ratio tuned red-shift of photoluminescence emission of PbSe nanorods investigated by electron holography. Journal of Colloid and Interface Science, 2017, 493, 385-392.	9.4	4
51	Magnetic Skyrmion Formation at Lattice Defects and Grain Boundaries Studied by Quantitative Off-Axis Electron Holography. Nano Letters, 2017, 17, 1395-1401.	9.1	33
52	Magnetic entropy change and accurate determination of Curie temperature in single-crystalline helimagnet FeGe. Europhysics Letters, 2017, 117, 47004.	2.0	24
53	Large linear magnetoresistance in a bismuth nanoribbon. Applied Physics Letters, 2017, 110, .	3.3	10
54	Enhanced Stability of the Magnetic Skyrmion Lattice Phase under a Tilted Magnetic Field in a Two-Dimensional Chiral Magnet. Nano Letters, 2017, 17, 2921-2927.	9.1	39

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55	Evidence of Fermi-arc states through the magnetoresistance quantum oscillations in Dirac semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">d</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">s</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>.	3.2	25
56	Thickness-tuned transition of band topology in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>ZrT</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:mrow></mml:math> nanosheets. Physical Review B, 2017, 95, .	3.2	23
57	Evidence of critical scaling in the monoaxial chiral helimagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="bold">Cr</mml:mi><mml:mrow><mml:mn mathvariant="bold">1</mml:mn><mml:mo>/</mml:mo><mml:mn mathvariant="bold">3</mml:mn></mml:mrow></mml:msub><mml:mi	3.2	52
58	Field-induced topological phase transition from a three-dimensional Weyl semimetal to a two-dimensional massive Dirac metal in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>ZrT</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 96, .	3.2	33
59	In-plane magnetic anisotropy of the Sr4Ru3O10 nanosheet probed by planar Hall effect. Applied Physics Letters, 2017, 111, .	3.3	7
60	A strain-induced new phase diagram and unusually high Curie temperature in manganites. Journal of Materials Chemistry C, 2017, 5, 7813-7819.	5.5	6
61	Field-driven oscillation and rotation of a multiskyrmion cluster in a nanodisk. Physical Review B, 2017, 95, .	3.2	16
62	Direct Imaging of a Zero-Field Target Skyrmion and Its Polarity Switch in a Chiral Magnetic Nanodisk. Physical Review Letters, 2017, 119, 197205.	7.8	156
63	Evidence of in-plane ferromagnetic order probed by planar Hall effect in the geometry-confined ruthenate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:mi mathvariant="normal">R</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>.	3.2	12
64	Scaling of the magnetic entropy change in skyrmion material Fe 0.5 Co 0.5 Si. Materials Research Bulletin, 2017, 94, 500-505.	5.2	19
65	Extremely Large Magnetoresistance in a Topological Semimetal Candidate Pyrite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>PtBi</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2017, 118, 256601.	7.8	114
66	Control of morphology and formation of highly geometrically confined magnetic skyrmions. Nature Communications, 2017, 8, 15569.	12.8	103
67	Critical phenomenon in the itinerant ferromagnet Cr11Ge19 studied by scaling of the magnetic entropy change. Journal of Alloys and Compounds, 2017, 693, 389-393.	5.5	7
68	Size effect on the magnetic phase in Sr₄Ru₃O₁₀. New Journal of Physics, 2016, 18, 053019.	2.9	9
69	Weak localization effect in topological insulator micro flakes grown on insulating ferrimagnet BaFe12O19. Scientific Reports, 2016, 6, 21334.	3.3	19
70	Superconductivity and Charge Density Wave in ZrTe3âˆ’xSex. Scientific Reports, 2016, 6, 26974.	3.3	47
71	Spin-dimensionality change induced by Co-doping in the chiral magnet Fe _{1âˆ’x} Co _x Si. Europhysics Letters, 2016, 115, 67006.	2.0	8
72	Topological analysis of spin-torque driven magnetic skyrmion formation. Applied Physics Letters, 2016, 109, .	3.3	12

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73	Direct imaging of magnetic field-driven transitions of skyrmion cluster states in FeGe nanodisks. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4918-4923.	7.1	125
74	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">R</mml:mi><mml:msub><mml:mi mathvariant="normal">h</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">N</mml:mi></mml:mrow></mml:math>: Noncentrosymmetric	3.2	26
75	Emergence of skyrmions from rich parent phases in the molybdenum nitrides. Physical Review B, 2016, 93, .	3.2	43
76	Transport evidence for the three-dimensional Dirac semimetal phase in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>ZrT</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2016, 93, .	3.2	144
77	Critical phenomenon of the near room temperature skyrmion material FeGe. Scientific Reports, 2016, 6, 22397.	3.3	43
78	Anisotropic magnetic coupling with a two-dimensional characteristic in noncentrosymmetric Cr11Ge19. Scientific Reports, 2016, 6, 39338.	3.3	8
79	CO-doping effects on the transport and magnetic properties of FeTe. Journal of Magnetism and Magnetic Materials, 2016, 397, 1-5.	2.3	4
80	Critical behavior of the single-crystal helimagnet MnSi. Physical Review B, 2015, 91, .	3.2	63
81	Superconductorâ€“Insulator Transition in Quasi-One-Dimensional Single-Crystal Nb₂PdS₅ Nanowires. Nano Letters, 2015, 15, 869-875.	9.1	29
82	Electrical probing of field-driven cascading quantized transitions of skyrmion cluster states in MnSi nanowires. Nature Communications, 2015, 6, 7637.	12.8	83
83	Preparation, optical and electrical properties of PTCDA nanostructures. Nanoscale, 2015, 7, 17116-17121.	5.6	23
84	Edge-mediated skyrmion chain and its collective dynamics in a confined geometry. Nature Communications, 2015, 6, 8504.	12.8	199
85	Switching of a target skyrmion by a spin-polarized current. Physical Review B, 2015, 91, .	3.2	52
86	Nonlinear transport in quasi-one-dimensional Nb2PdS5 nanowires. Applied Physics Letters, 2014, 105, 172603.	3.3	7
87	Highly Stable Skyrmion State in Helimagnetic MnSi Nanowires. Nano Letters, 2014, 14, 2026-2032.	9.1	94
88	Thickness dependence of the charge-density-wave transition temperature in VSe2. Applied Physics Letters, 2014, 105, .	3.3	86
89	Evidence of Topological Two-Dimensional Metallic Surface States in Thin Bismuth Nanoribbons. ACS Nano, 2014, 8, 7506-7512.	14.6	30
90	Thermal conductivity of a single Bi_{0.5}Sb_{1.5}Te₃single-crystalline nanowire. Nanotechnology, 2014, 25, 415704.	2.6	11

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91	Robust surface state transport in thin bismuth nanoribbons. Scientific Reports, 2014, 4, 7086.	3.3	27
92	Magnetic vortex with skyrmionic core in a thin nanodisk of chiral magnets. Europhysics Letters, 2013, 101, 37001.	2.0	49
93	Field-driven evolution of chiral spin textures in a thin helimagnet nanodisk. Physical Review B, 2013, 87, .	3.2	59
94	One-dimensional weak antilocalization in single-crystal Bi2Te3 nanowires. Scientific Reports, 2013, 3, 1564.	3.3	58
95	Dual evidence of surface Dirac states in thin cylindrical topological insulator Bi2Te3 nanowires. Scientific Reports, 2013, 3, 1212.	3.3	75