

# Naoya Kanazawa

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

9,269  
citations

101496

36  
h-index

114418

63  
g-index

73  
all docs

73  
docs citations

73  
times ranked

4856  
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	Skyrmion flow near room temperature in an ultralow current density. <i>Nature Communications</i> , 2012, 3, 988.	5.8	709
4	Large Topological Hall Effect in a Short-Period Helimagnet MnGe. <i>Physical Review Letters</i> , 2011, 106, 156603.	2.9	485
5	Magnetic Skyrmion Materials. <i>Chemical Reviews</i> , 2021, 121, 2857-2897.	23.0	292
6	Real-Space Observation of Skyrmion Lattice in Helimagnet MnSi Thin Samples. <i>Nano Letters</i> , 2012, 12, 1673-1677.	4.5	284
7	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
8	Thermally driven ratchet motion of a skyrmion microcrystal and topological magnon Hall effect. <i>Nature Materials</i> , 2014, 13, 241-246.	13.3	268
9	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
10	Large anisotropic deformation of skyrmions in strained crystal. <i>Nature Nanotechnology</i> , 2015, 10, 589-592.	15.6	188
11	Interplay between topological and thermodynamic stability in a metastable magnetic skyrmion lattice. <i>Nature Physics</i> , 2016, 12, 62-66.	6.5	164
12	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
13	Real-Space Observation of Short-Period Cubic Lattice of Skyrmions in MnGe. <i>Nano Letters</i> , 2015, 15, 5438-5442.	4.5	160
14	Noncentrosymmetric Magnets Hosting Magnetic Skyrmions. <i>Advanced Materials</i> , 2017, 29, 1603227.	11.1	158
15	Possible skyrmion-lattice ground state in the $\mathbf{B} \cdot \nabla \times \mathbf{m} > 20$ chiral-lattice magnet MnGe as seen via small-angle neutron scattering. <i>Physical Review B</i> , 2012, 86, .	1.1	127
16	Topological transitions among skyrmion- and hedgehog-lattice states in cubic chiral magnets. <i>Nature Communications</i> , 2019, 10, 1059.	5.8	112
17	Topological Magnetic Phase in the Candidate Weyl Semimetal CeAlGe. <i>Physical Review Letters</i> , 2020, 124, 017202.	2.9	99
18	Critical phenomena of emergent magnetic monopoles in a chiral magnet. <i>Nature Communications</i> , 2016, 7, 11622.	5.8	97

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19	Giant magneto-optical responses in magnetic Weyl semimetal Co <sub>3</sub> Sn <sub>2</sub> S <sub>2</sub> . Nature Communications, 2020, 11, 4619.	5.8	92
20	Discretized topological Hall effect emerging from skyrmions in constricted geometry. Physical Review B, 2015, 91, .	1.1	84
21	Topological Nernst effect in a three-dimensional skyrmion-lattice phase. Physical Review B, 2013, 88, .	1.1	82
22	Electrical magnetochiral effect induced by chiral spin fluctuations. Nature Communications, 2017, 8, 866.	5.8	76
23	Stability of two-dimensional skyrmions in thin films of Mn <sub>1-x</sub> Fe <sub>x</sub> Si investigated by the topological Hall effect. Physical Review B, 2014, 89, .	1.1	73
24	Emergent topological spin structures in the centrosymmetric cubic perovskite SrFeO <sub>3</sub> . Physical Review B, 2020, 101, .	1.1	62
25	Aggregation and collapse dynamics of skyrmions in a non-equilibrium state. Nature Physics, 2018, 14, 832-836.	6.5	54
26	Topological Kagome Magnet Co <sub>3</sub> Sn <sub>2</sub> S <sub>2</sub> Thin Flakes with High Electron Mobility and Large Anomalous Hall Effect. Nano Letters, 2020, 20, 7476-7481.	4.5	54
27	Local dynamics of topological magnetic defects in the itinerant helimagnet FeGe. Nature Communications, 2016, 7, 12430.	5.8	53
28	Temperature and Magnetic Field Dependence of the Internal and Lattice Structures of Skyrmions by Off-Axis Electron Holography. Physical Review Letters, 2017, 118, 087202.	2.9	49
29	Current-induced dynamics of skyrmion strings. Science Advances, 2018, 4, eaat1115.	4.7	49
30	Spin-wave spectroscopy of the Dzyaloshinskii-Moriya interaction in room-temperature chiral magnets hosting skyrmions. Physical Review B, 2017, 95, .	1.1	48
31	Topological domain walls in helimagnets. Nature Physics, 2018, 14, 465-468.	6.5	47
32	Engineering skyrmions and emergent monopoles in topological spin crystals. Applied Physics Letters, 2020, 116, .	1.5	41
33	Formation of In-plane Skyrmions in Epitaxial MnSi Thin Films as Revealed by Planar Hall Effect. Journal of the Physical Society of Japan, 2015, 84, 104708.	0.7	40
34	Giant anomalous Hall effect from spin-chirality scattering in a chiral magnet. Nature Communications, 2021, 12, 317.	5.8	40
35	Crystal chirality and skyrmion helicity in MnSi and (Fe, Co)Si as determined by transmission electron microscopy. Physical Review B, 2013, 88, .	1.1	38
36	Motion tracking of 80-nm-size skyrmions upon directional current injections. Science Advances, 2020, 6, eaaz9744.	4.7	37

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37	Large magneto-thermopower in MnGe with topological spin texture. Nature Communications, 2018, 9, 408.	5.8	36
38	Direct Observation of the Statics and Dynamics of Emergent Magnetic Monopoles in a Chiral Magnet. Physical Review Letters, 2020, 125, 137202.	2.9	34
39	Dynamical process of skyrmion-helical magnetic transformation of the chiral-lattice magnet FeGe probed by small-angle resonant soft x-ray scattering. Physical Review B, 2015, 92, .	1.1	33
40	Emergent electromagnetic induction beyond room temperature. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	30
41	Mapping the magnetization fine structure of a lattice of Bloch-type skyrmions in an FeGe thin film. Applied Physics Letters, 2017, 111, 192410.	1.5	26
42	Real-Space Observation of Topological Defects in Extended Skyrmion-Strings. Nano Letters, 2020, 20, 7313-7320.	4.5	26
43	Topological spin-hedgehog crystals of a chiral magnet as engineered with magnetic anisotropy. Physical Review B, 2017, 96, .	1.1	25
44	Direct observation of anisotropic magnetic field response of the spin helix in FeGe thin films. Physical Review B, 2016, 94, .	1.1	24
45	Bloch Lines Constituting Antiskyrmions Captured via Differential Phase Contrast. Advanced Materials, 2020, 32, e2004206.	11.1	21
46	Variation of spin-orbit coupling and related properties in skyrmionic system $\text{Mn}_{1-x}\text{Fe}_x\text{Ge}$ . New Journal of Physics, 2016, 18, 045006.	1.2	20
47	Coherent Resonant Soft X-ray Scattering Study of Magnetic Textures in FeGe. Quantum Beam Science, 2018, 2, 3.	0.6	19
48	Band-filling dependence of thermoelectric properties in B20-type CoGe. Applied Physics Letters, 2012, 100, .	1.5	16
49	Current-Driven Motion of Domain Boundaries between Skyrmion Lattice and Helical Magnetic Structure. Nano Letters, 2018, 18, 929-933.	4.5	15
50	Combining the helical phase of chiral magnets with electric currents. Physical Review B, 2020, 102, .	1.1	14
51	Magneto-optical spectroscopy on Weyl nodes for anomalous and topological Hall effects in chiral MnGe. Nature Communications, 2021, 12, 5974.	5.8	13
52	Emergence of spin-orbit coupled ferromagnetic surface state derived from Zak phase in a nonmagnetic insulator FeSi. Science Advances, 2021, 7, eabj0498.	4.7	10
53	Signature of anisotropic exchange interaction revealed by vector-field control of the helical order in a FeGe thin plate. Physical Review Research, 2021, 3, .	1.3	9
54	Determination of crystallographic chirality of MnSi thin film grown on Si (111) substrate. Physical Review Materials, 2020, 4, .	0.9	9

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55	Reply. Physical Review Letters, 2014, 112, 059702.	2.9	7
56	Metastable solitonic states in the strained itinerant helimagnet FeGe. Physical Review B, 2020, 102, .	1.1	7
57	Miniature Hall sensor integrated on a magnetic thin film for detecting domain wall motion. Journal of Applied Physics, 2013, 114, 053909.	1.1	4
58	Detection of Topological Spin Textures via Nonlinear Magnetic Responses. Nano Letters, 2022, 22, 14-21.	4.5	3
59	Topological Phase Transitions and Critical Phenomena Associated with Unwinding of Spin Crystals by High Magnetic Fields. Journal of the Physical Society of Japan, 2022, 91, .	0.7	3
60	Enhanced electrical magnetochiral effect by spin-hedgehog lattice structural transition. Physical Review B, 2021, 103, .	1.1	2
61	Ferromagnetic Materials: Noncentrosymmetric Magnets Hosting Magnetic Skyrmions (Adv. Mater.)	11.1	1
62	Monoclinic semimetal IrSi synthesized under high pressure above 25 GPa: Crystal structure, electronic, and magnetic properties. Physical Review Materials, 2020, 4, .	0.9	1
63	Quantitative Measurement of Topological Spin Textures via Differential Phase Contrast. Microscopy and Microanalysis, 2020, 26, 614-616.	0.2	0
64	Observation of Skyrmion Lattice by Lorentz Transmission Electron Microscopy. Nihon Kessho Gakkaishi, 2011, 53, 274-279.	0.0	0
65	3D Skyrmion-Lattice and Topological Hall Effect in MnGe. Springer Theses, 2015, , 45-60.	0.0	0
66	Skyrmion Formation in Epitaxial FeGe Thin Films. Springer Theses, 2015, , 61-73.	0.0	0
67	Magnetic and Transport Properties in B20-type Germanides. Springer Theses, 2015, , 29-44.	0.0	0
68	3D Dirac Electrons and Large Thermoelectric Properties in CoGe. Springer Theses, 2015, , 75-84.	0.0	0
69	Dislocation-Driven Relaxation Processes at the Conical to Helical Phase Transition in FeGe. ACS Nano, 2021, , .	7.3	0
70	Topological Magnetic Phase Transitions Revealed by Neutron Scattering Experiment From Skyrmion Lattice to Emergent Monopole Lattice. Hamon, 2020, 30, 144-148.	0.0	0