Kirsten von Bergmann

List of Publications by Year
in descending order

78	7,896	109137 35	62479 80
papers	citations	h-index	g-index

83	83	83	5228
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Zero-field skyrmionic states and in-field edge-skyrmions induced by boundary tuning. Communications Physics, 2022, 5, .	2.0	7
2	Coexistence of antiferromagnetism and superconductivity in Mn/Nb(110). Physical Review B, 2022, 105, .	1.1	12
3	Nanoscale skyrmions on a square atomic lattice. Physical Review B, 2022, 105, .	1.1	3
4	Spin-spiral state of a Mn monolayer on W(110) studied by soft x-ray absorption spectroscopy at variable temperature. Physical Review B, 2021, 103, .	1.1	3
5	Discovery and characterization of a new type of domain wall in a row-wise antiferromagnet. Nature Communications, 2021, 12, 3488.	5.8	7
6	Discovery of Magnetic Single- and Triple- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="bold">q</mml:mi></mml:mrow></mml:math> States in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Mn</mml:mi><mml:mrow><mml:mo>/</mml:mo><mml:mi>Re</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>0001</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 517 Td (stretchy="false">)</m	2.9	35
7	Plumbene on a Magnetic Substrate: A Combined Scanning Tunneling Microscopy and Density Functional Theory Study. Physical Review Letters, 2020, 124, 126401.	2.9	26
8	The 2020 skyrmionics roadmap. Journal Physics D: Applied Physics, 2020, 53, 363001.	1.3	245
9	Stacking-Dependent Spin Interactions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Pd</mml:mi><mml:mo>/</mml:mo><mml:mi>Fe</mml:mi></mml:math> Bilayers on Re(0001). Physical Review Letters, 2020, 125, 227205.	2.9	9
10	Towards skyrmion-superconductor hybrid systems. Physical Review Materials, 2020, 4, .	0.9	14
11	Isolated zero field sub-10â€‰nm skyrmions in ultrathin Co films. Nature Communications, 2019, 10, 3823.	5.8	84
12	Colloquium: Atomic spin chains on surfaces. Reviews of Modern Physics, 2019, 91, .	16.4	90
13	Nanoscale magnetic skyrmions and target states in confined geometries. Physical Review B, 2019, 99, .	1.1	44
14	Tuning noncollinear magnetic states by hydrogenation. Physical Review B, 2019, 99, .	1.1	2
15	Electrical Detection of Domain Walls and Skyrmions in Co Films Using Noncollinear Magnetoresistance. Physical Review Letters, 2019, 123, 237205.	2.9	16
16	Inducing skyrmions in ultrathin Fe films by hydrogen exposure. Nature Communications, 2018, 9, 1571.	5.8	40
17	Magnetic domain walls in strain-patterned ultrathin films. Physical Review B, 2018, 98, .	1.1	1
18	Non-collinear Magnetism Studied with Spin-Polarized Scanning Tunneling Microscopy. Nanoscience and Technology, 2018, , 163-182.	1.5	0

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19	Pb-induced skyrmions in a double layer of Fe on Ir(111). Physical Review B, 2018, 98, .	1.1	3
20	Competition of Dzyaloshinskii-Moriya and Higher-Order Exchange Interactions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Rh</mml:mi><mml:mo>/</mml:mo><mml:mi>Fe</mml:mi></mml:mrow></mml:math> Atomic Bilayers on Ir(111). Physical Review Letters, 2018, 120, 207201.	2.9	44
21	Domain walls and Dzyaloshinskii-Moriya interaction in epitaxial Co/Ir(111) and Pt/Co/Ir(111). Physical Review B, 2018, 97, .	1.1	26
22	Skyrmions: a twisted future. Physics World, 2017, 30, 25-28.	0.0	3
23	Impact of the skyrmion spin texture on magnetoresistance. Physical Review B, 2017, 95, .	1.1	45
24	Temperature-Induced Increase of Spin Spiral Periods. Physical Review Letters, 2017, 119, 037202.	2.9	9
25	Electric-field-driven switching of individual magnetic skyrmions. Nature Nanotechnology, 2017, 12, 123-126.	15.6	297
26	Tailoring noncollinear magnetism by misfit dislocation lines. Physical Review B, 2016, 94, .	1.1	7
27	Coupling of Coexisting Noncollinear Spin States in the Fe Monolayer on Re(0001). Nano Letters, 2016, 16, 6252-6256.	4.5	12
28	Structural and magnetic properties of Ni/Fe nanostructures on Ir(111). Physical Review B, 2016, 93, .	1.1	11
29	Guiding Spin Spirals by Local Uniaxial Strain Relief. Physical Review Letters, 2016, 116, 017201.	2.9	35
30	Skyrmions at the Edge: Confinement Effects in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Fe</mml:mi><mml:mo>/</mml:mo><mml:mi>Ir</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>111</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 287 Td (stretchy="false">)</mm	2.9	23
31	Symmetry breaking in spin spirals and skyrmions by in-plane and canted magnetic fields. New Journal of Physics, 2016, 18, 075007.	1.2	16
32	Pinning and movement of individual nanoscale magnetic skyrmions via defects. New Journal of Physics, 2016, 18, 055009.	1.2	94
33	Spin Polarization of the Split Kondo State. Physical Review Letters, 2015, 114, 076601.	2.9	44
34	Magnetic bubbles with a twist. Science, 2015, 349, 234-235.	6.0	10
35	Giant magnetization canting due to symmetry breaking in zigzag Co chains on Ir(001). New Journal of Physics, 2015, 17, 023014.	1.2	19
36	Field-Dependent Size and Shape of Single Magnetic Skyrmions. Physical Review Letters, 2015, 114, 177203.	2.9	423

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37	Influence of the Local Atom Configuration on a Hexagonal Skyrmion Lattice. Nano Letters, 2015, 15, 3280-3285.	4.5	36
38	Electrical detection of magnetic skyrmions by tunnelling non-collinear magnetoresistance. Nature Nanotechnology, 2015, 10, 1039-1042.	15.6	179
39	Stability of single skyrmionic bits. Nature Communications, 2015, 6, 8455.	5.8	130
40	Scanning tunneling microscopy study of Fe, Co and Cr growth on Re(0001). Surface Science, 2014, 630, 280-285.	0.8	20
41	Parity Effects in 120Â° Spin Spirals. Physical Review Letters, 2014, 112, 047204.	2.9	12
42	Enhanced Atomic-Scale Spin Contrast due to Spin Friction. Physical Review Letters, 2014, 112, 076102.	2.9	19
43	Interface-induced chiral domain walls, spin spirals and skyrmions revealed by spin-polarized scanning tunneling microscopy. Journal of Physics Condensed Matter, 2014, 26, 394002.	0.7	77
44	Writing and Deleting Single Magnetic Skyrmions. Science, 2013, 341, 636-639.	6.0	1,217
45	Magnetic coupling of single Co adatoms to a Co underlayer through a Pd spacer of variable thickness. Physical Review B, 2012, 86, .	1.1	7
46	Conical Spin-Spiral State in an Ultrathin Film Driven by Higher-Order Spin Interactions. Physical Review Letters, 2012, 108, 087205.	2.9	64
47	Tunneling anisotropic magnetoresistance on the atomic scale. Physical Review B, 2012, 86, .	1.1	39
48	Spin Friction Observed on the Atomic Scale. Physical Review Letters, 2012, 109, 116102.	2.9	42
49	Gitter aus magnetischen Wirbeln. Physik in Unserer Zeit, 2012, 43, 6-7.	0.0	1
50	Information Transfer by Vector Spin Chirality in Finite Magnetic Chains. Physical Review Letters, 2012, 108, 197204.	2.9	151
51	Magnetic properties of monolayer Co islands on Ir(111) probed by spin-resolved scanning tunneling microscopy. Physical Review B, 2011, 84, .	1.1	19
52	Multiscale magnetic study of Ni(111) and graphene on Ni(111). Physical Review B, 2011, 84, .	1.1	48
53	Spontaneous atomic-scale magnetic skyrmion lattice in two dimensions. Nature Physics, 2011, 7, 713-718.	6.5	1,521
54	Imaging and manipulating the spin direction of individual atoms. Nature Nanotechnology, 2010, 5, 350-353.	15.6	126

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55	Controlling the state of quantum spins with electric currents. Nature Physics, 2010, 6, 340-344.	6.5	277
56	Magnetismus mit Dreh. Spinspiralen an OberflÃchen. Physik in Unserer Zeit, 2008, 39, 93-97.	0.0	1
57	The role of magnetic anisotropy in the Kondo effect. Nature Physics, 2008, 4, 847-850.	6.5	309
58	Atomic-Scale Spin Spiral with a Unique Rotational Sense: Mn Monolayer on W(001). Physical Review Letters, 2008, 101, 027201.	2.9	238
59	Complex magnetic order on the atomic scale revealed by spin-polarized scanning tunnelling microscopy. Philosophical Magazine, 2008, 88, 2627-2642.	0.7	9
60	Structure and magnetism of ultra-thin chromium layers on W(110). New Journal of Physics, 2008, 10, 013005.	1.2	24
61	Complex magnetism of the Fe monolayer on Ir(111). New Journal of Physics, 2007, 9, 396-396.	1.2	33
62	Co double-layer nanostructures on Pt(111) studied by spin-polarized scanning tunnelling microscopy. Journal Physics D: Applied Physics, 2007, 40, 1306-1311.	1.3	7
63	Chiral magnetic order at surfaces driven by inversion asymmetry. Nature, 2007, 447, 190-193.	13.7	823
64	Spin-dependent electronic and magnetic properties of Co nanostructures onPt(111)studied by spin-resolved scanning tunneling spectroscopy. Physical Review B, 2006, 74, .	1.1	48
65	Atomic spin structure of antiferromagnetic domain walls. Nature Materials, 2006, 5, 477-481.	13.3	134
66	Coverage-dependent spin reorientation transition temperature of the Fe double-layer on W(110) observed by scanning tunneling microscopy. Journal of Magnetism and Magnetic Materials, 2006, 305, 279-283.	1.0	13
67	Growth of Cr on Ir(111) studied by scanning tunneling microscopy. Surface Science, 2006, 600, 1034-1039.	0.8	4
68	Spin-polarized scanning tunneling spectroscopy of dislocation lines in Fe films on W(110). Journal of Magnetism and Magnetic Materials, 2006, 304, 1-5.	1.0	15
69	Observation of a Complex Nanoscale Magnetic Structure in a Hexagonal Fe Monolayer. Physical Review Letters, 2006, 96, 167203.	2.9	100
70	Spin-polarized scanning tunneling microscopy: Insight into magnetism from nanostructures to atomic scale spin structures. Microscopy Research and Technique, 2005, 66, 61-71.	1.2	9
71	Imaging the switching behavior of superparamagnetic nanoislands by spin-polarized scanning tunneling microscopy. Microscopy Research and Technique, 2005, 66, 117-125.	1.2	10
72	Lattice-dependent anisotropy in the orientation of magnetic domain walls. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 746-749.	1.0	4

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73	Revealing Antiferromagnetic Order of the Fe Monolayer on W(001): Spin-Polarized Scanning Tunneling Microscopy and First-Principles Calculations. Physical Review Letters, 2005, 94, 087204.	2.9	133
74	Magnetism of iron on tungsten (001) studied by spin-resolved scanning tunneling microscopy and spectroscopy. Physical Review B, 2004, 70, .	1.1	23
75	Spin-Polarized Electron Scattering at Single Oxygen Adsorbates on a Magnetic Surface. Physical Review Letters, 2004, 92, 046801.	2.9	22
76	Domain Wall Orientation in Magnetic Nanowires. Physical Review Letters, 2004, 92, 077207.	2.9	68
77	Al2O3-films on Ni3Al(111): a template for nanostructured cluster growth. New Journal of Physics, 2002, 4, 75-75.	1.2	78
78	Preferential cluster nucleation on long-range superstructures on Al2O3/Ni3Al(111). Surface Science, 2001, 486, L443-L448.	0.8	37