

Florian Kronast

List of Publications by Year in descending order

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82
papers

2,633
citations

218677

26
h-index

197818

49
g-index

84
all docs

84
docs citations

84
times ranked

3572
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric-field control of magnetic order above room temperature. <i>Nature Materials</i> , 2014, 13, 345-351.	27.5	451
2	Magnetism in curved geometries. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 363001.	2.8	263
3	Mechanism of Néel Order Switching in Antiferromagnetic Thin Films Revealed by Magnetotransport and Direct Imaging. <i>Physical Review Letters</i> , 2019, 123, 177201.	7.8	119
4	Real-Space Observation of Skyrmionium in a Ferromagnet-Magnetic Topological Insulator Heterostructure. <i>Nano Letters</i> , 2018, 18, 1057-1063.	9.1	109
5	Retrieving spin textures on curved magnetic thin films with full-field soft X-ray microscopies. <i>Nature Communications</i> , 2015, 6, 7612.	12.8	108
6	Magnetic Anisotropy Engineering in Thin Film Ni Nanostructures by Magnetoelastic Coupling. <i>Physical Review Applied</i> , 2014, 1, .	3.8	85
7	Temperature-driven nucleation of ferromagnetic domains in FeRh thin films. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	79
8	Equilibrium magnetic states in individual hemispherical permalloy caps. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	72
9	Element-Specific Magnetic Hysteresis of Individual 18 nm Fe Nanocubes. <i>Nano Letters</i> , 2011, 11, 1710-1715.	9.1	64
10	Spin-resolved photoemission microscopy and magnetic imaging in applied magnetic fields. <i>Surface and Interface Analysis</i> , 2010, 42, 1532-1536.	1.8	63
11	Direct Determination of Large Spin-Torque Nonadiabaticity in Vortex Core Dynamics. <i>Physical Review Letters</i> , 2010, 105, 187203.	7.8	58
12	Experimental Observation of Exchange-Driven Chiral Effects in Curvilinear Magnetism. <i>Physical Review Letters</i> , 2019, 123, 077201.	7.8	57
13	Photoemission electron microscopy of three-dimensional magnetization configurations in core-shell nanostructures. <i>Physical Review B</i> , 2011, 84, .	3.2	52
14	Magnetic vortices on closely packed spherically curved surfaces. <i>Physical Review B</i> , 2012, 85, .	3.2	52
15	Magnetically Capped Rolled-up Nanomembranes. <i>Nano Letters</i> , 2012, 12, 3961-3966.	9.1	50
16	Enhancement of Ti_3C_2 MXene Pseudocapacitance after Urea Intercalation Studied by Soft X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 5079-5086.	3.1	46
17	Local electrical control of magnetic order and orientation by ferroelastic domain arrangements just above room temperature. <i>Scientific Reports</i> , 2015, 5, 10026.	3.3	44
18	Current-induced vortex dynamics and pinning potentials probed by homodyne detection. <i>Physical Review B</i> , 2010, 82, .	3.2	42

#	ARTICLE	IF	CITATIONS
19	Magnetic Dipole and Higher Pole Interaction on a Square Lattice. <i>Physical Review Letters</i> , 2013, 110, 177209.	7.8	41
20	Manipulating Topological States by Imprinting Non-Collinear Spin Textures. <i>Scientific Reports</i> , 2015, 5, 8787.	3.3	38
21	Magnetic antidot to dot crossover in Co and Py nanopatterned thin films. <i>Physical Review B</i> , 2014, 89, .	3.2	35
22	Imaging of Buried 3D Magnetic Rolled-up Nanomembranes. <i>Nano Letters</i> , 2014, 14, 3981-3986.	9.1	34
23	Laser-Rewritable Ferromagnetism at Thin-Film Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 15232-15239.	8.0	32
24	Temperature dependence of the Dzyaloshinskii-Moriya interaction in ultrathin films. <i>Physical Review B</i> , 2020, 101, .	3.2	29
25	X-ray photoemission electron microscopy studies of local magnetization in Py antidot array thin films. <i>Physical Review B</i> , 2012, 85, .	3.2	26
26	Phase separation and electrical switching between two isosymmetric multiferroic phases in tensile strained BiFeO_3 films. <i>Physical Review B</i> , 2014, 89, .	3.2	26
27	Pallasite paleomagnetism: Quiescence of a core dynamo. <i>Earth and Planetary Science Letters</i> , 2016, 441, 103-112.	4.4	26
28	Depth-resolved soft x-ray photoelectron emission microscopy in nanostructures via standing-wave excited photoemission. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	24
29	Standing-wave excited soft x-ray photoemission microscopy: Application to Co microdot magnetic arrays. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	24
30	Vortex circulation and polarity patterns in closely packed cap arrays. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	23
31	SPEEM: The photoemission microscope at the dedicated microfocus PGM beamline UE49-PGMa at BESSY II. <i>Journal of Large-scale Research Facilities JLSRF</i> , 0, 2, A90.	0.0	22
32	Competition between Superconductor and Ferromagnetic stray magnetic fields in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films pierced with Co nano-rods. <i>Scientific Reports</i> , 2017, 7, 5663.	3.3	21
33	Reconfigurable large-area magnetic vortex circulation patterns. <i>Physical Review B</i> , 2015, 92, .	3.2	19
34	Thermal nucleation and high-resolution imaging of submicrometer magnetic bubbles in thin thulium iron garnet films with perpendicular anisotropy. <i>Physical Review Materials</i> , 2020, 4, .	2.4	19
35	A spatially resolved investigation of the local, micro-magnetic domain structure of single and polycrystalline Co_2FeSi . <i>Journal Physics D: Applied Physics</i> , 2007, 40, 1570-1575.	2.8	18
36	Microstructural and paleomagnetic insight into the cooling history of the IAB parent body. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 229, 1-19.	3.9	17

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37	Layer-Dependent Magnetic Domains in Atomically Thin Fe ₅ GeTe ₂ . ACS Nano, 2022, 16, 10545-10553.	14.6	17
38	Imaging magnetic responses of nanomagnets by XPEEM. Journal of Electron Spectroscopy and Related Phenomena, 2012, 185, 365-370.	1.7	16
39	Hysteresis-free switching between vortex and collinear magnetic states. New Journal of Physics, 2014, 16, 053002.	2.9	16
40	Disentangling the Physical Contributions to the Electrical Resistance in Magnetic Domain Walls: A Multiscale Study. Physical Review Letters, 2012, 108, 077201.	7.8	15
41	Steering of magnetic domain walls by single ultrashort laser pulses. Physical Review B, 2019, 99, .	3.2	15
42	Strain-gradient-induced magnetic anisotropy in straight-stripe mixed-phase bismuth ferrites: Insight into flexomagnetism. Physical Review B, 2017, 96, .	3.2	14
43	A sample holder with integrated laser optics for an ELMITEC photoemission electron microscope. Review of Scientific Instruments, 2015, 86, 023702.	1.3	13
44	Magnetic and electrical transport signatures of uncompensated moments in epitaxial thin films of the noncollinear antiferromagnet Mn ₃ Ir. Applied Physics Letters, 2019, 115, 062403.	3.3	12
45	Mn ₃ d electronic configurations in (Ga _{1-x} Mn _x)As ferromagnetic semiconductors and their influence on magnetic ordering. Physical Review B, 2006, 74, .	3.2	11
46	Spatially resolved investigation of all optical magnetization switching in TbFe alloys. Scientific Reports, 2017, 7, 9456.	3.3	11
47	Spatially resolved X-ray absorption spectroscopy investigation of individual cation-intercalated multi-layered Ti ₃ C ₂ T _x MXene particles. Applied Surface Science, 2020, 530, 147157.	6.1	10
48	A Time-Resolved Paleomagnetic Record of Main Group Pallasites: Evidence for a Large-Cored, Thin-Mantled Parent Body. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006900.	3.6	10
49	Femtosecond spin dynamics of ferromagnetic thin films and nanodots probed by spin polarized photoemission electron microscopy. Journal Physics D: Applied Physics, 2008, 41, 164002.	2.8	9
50	Photoemission electron microscopy study of sub-200 nm self-assembled La _{0.7} Sr _{0.3} MnO ₃ epitaxial islands. Nanoscale, 2013, 5, 2990.	5.6	9
51	The complex interface chemistry of thin-film silicon/zinc oxide solar cell structures. Physical Chemistry Chemical Physics, 2014, 16, 26266-26272.	2.8	9
52	Laser-driven formation of transient local ferromagnetism in FeRh thin films. Ultramicroscopy, 2017, 183, 104-108.	1.9	9
53	2D magnetic domain wall ratchet: The limit of submicrometric holes. Materials and Design, 2018, 138, 111-118.	7.0	9
54	Spin-Polarized Photoelectron Emission Microscopy of Magnetic Nanostructures. , 2001, , 557-564.		9

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55	Time-resolved magnetization dynamics of cross-tie domain walls in permalloy microstructures. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 496001.	1.8	8
56	Fabrication of layered nanostructures by successive electron beam induced deposition with two precursors: protective capping of metallic iron structures. <i>Nanotechnology</i> , 2011, 22, 475304.	2.6	8
57	$\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mn} \rangle 360 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \hat{\sim} \langle \text{mml:mo} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mn} \rangle 30 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{NiO} \langle \text{mml:mtext} \rangle \langle \text{mml:mo} \rangle / \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{Fe} \langle \text{mml:mtext} \rangle \langle \text{mml:mo} \rangle / \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{Cu/Co} \langle \text{mml:mtext} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{trilayers}$. Physical Review B, 2018, 98, .	3.2	7
58	Tunable Magnetic Vortex Dynamics in Ion-Implanted Permalloy Disks. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27812-27818.	8.0	8
59	Temperature dependence of magnetic coupling in ultrathin $\text{NiO}/\text{Fe}/\text{Cu/Co}$ trilayers. <i>Physical Review B</i> , 2009, 80, .	2.9	7
60	Magnetostatic coupling of 90° domain walls in $\text{Fe}_{19}\text{Ni}_{81}/\text{Cu/Co}$ trilayers. <i>New Journal of Physics</i> , 2011, 13, 033015.	2.9	7
61	Control of the magnetization in pre-patterned half-metallic $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ nanostructures. <i>Journal of Applied Physics</i> , 2012, 112, 103921.	2.5	7
62	Direct observation of temperature dependent magnetic domain structure of the multiferroic $\text{La}_{0.66}\text{Sr}_{0.34}\text{MnO}_3/\text{BiFeO}_3$ bilayer system by x-ray linear dichroism- and x-ray magnetic circular dichroism-photoemission electron microscopy. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	7
63	Laterally confined metal-to-insulator and quasi-two-dimensional to two-dimensional transition by focused Rb intercalation of 1T-TaS_2 . <i>Physical Review B</i> , 2011, 84, .	3.2	6
64	Magnetization reversal of the domain structure in the anti-perovskite nitride Co_3FeN investigated by high-resolution X-ray microscopy. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	6
65	From stripes to bubbles: Deterministic transformation of magnetic domain patterns in Co/Pt multilayers induced by laser helicity. <i>Physical Review B</i> , 2020, 102, .	3.2	6
66	Microstructure of vanadium-based contacts on n-type GaN. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 105401.	2.8	5
67	Domain wall transformations and hopping in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ nanostructures imaged with high resolution x-ray magnetic microscopy. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 456003.	1.8	5
68	Driving magnetic domains at the nanoscale by interfacial strain-induced proximity. <i>Nanoscale</i> , 2021, 13, 4985-4994.	5.6	5
69	Domain-Wall Damping in Ultrathin Nanostripes with Dzyaloshinskii-Moriya Interaction. <i>Physical Review Applied</i> , 2021, 15, .	3.8	5
70	Superconducting imprint of magnetic textures in ferromagnets with perpendicular magnetic anisotropy. <i>Scientific Reports</i> , 2021, 11, 20788.	3.3	5
71	A new sample holder for laser-excited pump-probe magnetic measurements on a Focus photoelectron emission microscope. <i>Review of Scientific Instruments</i> , 2008, 79, 033702.	1.3	4
72	Domain wall resistance in epitaxial Fe wires. <i>Journal of Magnetism and Magnetic Materials</i> , 2011, 323, 1027-1030.	2.3	4

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73	Fabrication and Magnetic Characterization of Cobalt Antidot Arrays: Effect of the Surrounding Continuous Film. Journal of Nanoscience and Nanotechnology, 2012, 12, 7437-7441.	0.9	4
74	Spatially resolved measurements of the ferromagnetic phase transition by ac-susceptibility investigations with x-ray photoelectron emission microscope. Applied Physics Letters, 2010, 96, .	3.3	3
75	Intergrain variations of the chemical and electronic surface structure of polycrystalline Cu(In,Ga)Se ₂ thin-film solar cell absorbers. Applied Physics Letters, 2012, 101, .	3.3	3
76	Magnetoelastic resonance as a probe for exchange springs at antiferromagnet-ferromagnet interfaces. Physical Review B, 2022, 105, .	3.2	3
77	Lateral inhomogeneity of the Mg/(Zn+Mg) composition at the (Zn,Mg)O/CuIn(S,Se) ₂ thin-film solar cell interface revealed by photoemission electron microscopy. Journal of Applied Physics, 2013, 113, 193709.	2.5	2
78	ELECTRICAL-FIELD CONTROL OF MAGNETISM MEDIATED BY STRAIN IN Ni NANOSTRUCTURES FABRICATED ON PRE-POLED PMNâ€“PT (011). Spin, 2013, 03, 1340008.	1.3	2
79	Sample cartridge with built-in miniature molecule evaporator for in-situ measurement with a photoemission electron microscope. Ultramicroscopy, 2019, 200, 1-5.	1.9	1
80	A local view of the laser induced magnetic domain dynamics in CoPd stripe domains at the picosecond time scale. Journal of Physics Condensed Matter, 2020, 32, 465801.	1.8	1
81	Surface modification of polycrystalline Cu(In, Ga)Se ₂ thin-film solar cell absorber surfaces for PEEM measurements. , 2011, , .		0
82	ATTENUATION OF SURFACE ACOUSTIC WAVES BY SPINâ€“WAVE EXCITATIONS IN $\text{Co}_{60}\text{Fe}_{20}\text{B}_{20}$. Spin, 2014, 04, 1440005.	1.3	0