Benjamin Krueger

List of Publications by Year
in descending order

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50 papers	4,271 citations	257429 24 h-index	197805 49 g-index
50 all docs	50 docs citations	50 times ranked	3241 citing authors

#	Article	IF	Citations
1	Observation of room-temperature magnetic skyrmions and their current-driven dynamics in ultrathin metallic ferromagnets. Nature Materials, 2016, 15, 501-506.	27.5	1,331
2	Skyrmion Hall effect revealed by direct time-resolved X-ray microscopy. Nature Physics, 2017, 13, 170-175.	16.7	607
3	Dynamics and inertia of skyrmionic spinÂstructures. Nature Physics, 2015, 11, 225-228.	16.7	304
4	Direct Imaging of Stochastic Domain-Wall Motion Driven by Nanosecond Current Pulses. Physical Review Letters, 2007, 98, 187202.	7.8	220
5	Field-free deterministic ultrafast creation of magnetic skyrmions by spinâ€“orbit torques. Nature Nanotechnology, 2017, 12, 1040-1044.	31.5	215
6	Magnetic Skyrmion as a Nonlinear Resistive Element: A Potential Building Block for Reservoir Computing. Physical Review Applied, 2018, 9, .	3.8	191
7	Current controlled random-access memory based on magnetic vortex handedness. Applied Physics Letters, 2008, 93, .	3.3	170
8	Inertia and Chiral Edge Modes of a Skyrmion Magnetic Bubble. Physical Review Letters, 2012, 109, 217201.	7.8	165
9	Time-Resolved X-Ray Microscopy of Spin-Torque-Induced Magnetic Vortex Gyration. Physical Review Letters, 2008, 100, 176601.	7.8	124
10	Harmonic oscillator model for current- and field-driven magnetic vortices. Physical Review B, 2007, 76, .	3.2	86
11	Magnetic Anisotropy Engineering in Thin Film Ni Nanostructures by Magnetoelastic Coupling. Physical Review Applied, 2014, 1, .	3.8	85
12	Synchronous precessional motion of multiple domain walls in a ferromagnetic nanowire by perpendicular field pulses. Nature Communications, 2014, 5, 3429.	12.8	64
13	Imaging spin dynamics on the nanoscale using X-Ray microscopy. Frontiers in Physics, 2015, 3, .	2.1	51
14	Time-resolved imaging of current-induced domain-wall oscillations. Physical Review B, 2008, 78, .	3.2	47
15	Current-driven domain-wall dynamics in curved ferromagnetic nanowires. Physical Review B, 2007, 75, .	3.2	44
16	Dependence of Magnetic Domain-Wall Motion on a Fast Changing Current. Physical Review Letters, 2009, 103, 197204.	7.8	43
17	Proposal for a standard problem for micromagnetic simulations including spin-transfer torque. Journal of Applied Physics, 2009, 105, .	2.5	38
18	Nonlinear magnetic vortex gyration. Physical Review B, 2012, 85, .	3.2	36

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19	Current- and field-driven magnetic antivortices for nonvolatile data storage. Applied Physics Letters, 2009, 94, 062504.	3.3	32
20	A Fast Finite-Difference Method for Micromagnetics Using the Magnetic Scalar Potential. IEEE Transactions on Magnetics, 2012, 48, 1105-1109.	2.1	31
21	Solution of the inhomogeneous Maxwellâ€™s equations using a Born series. Optics Express, 2017, 25, 25165.	3.4	30
22	Vortices and antivortices as harmonic oscillators. Journal of Applied Physics, 2008, 103, 07A501.	2.5	29
23	Effective field analysis using the full angular spin-orbit torque magnetometry dependence. Physical Review B, 2017, 95, .	3.2	27
24	Multiscale simulations of topological transformations in magnetic-skyrmion spin structures. Physical Review B, 2017, 96, .	3.2	26
25	Switching by Domain-Wall Automotion in Asymmetric Ferromagnetic Rings. Physical Review Applied, 2017, 7, .	3.8	24
26	Current- and field-driven magnetic antivortices. Physical Review B, 2008, 77, .	3.2	23
27	Proposal of a Robust Measurement Scheme for the Nonadiabatic Spin Torque Using the Displacement of Magnetic Vortices. Physical Review Letters, 2010, 104, 077201.	7.8	23
28	Influence of temperature on the gyrotropic eigenmode of magnetic vortices. Physical Review B, 2011, 83, .	3.2	21
29	Current-induced domain-wall depinning in curved Permalloy nanowires. Journal of Applied Physics, 2009, 105, .	2.5	20
30	Localized domain wall nucleation dynamics in asymmetric ferromagnetic rings revealed by direct time-resolved magnetic imaging. Physical Review B, 2016, 94, .	3.2	17
31	Nonadiabatic spin-transfer torque of magnetic vortex structures in a permalloy square. Physical Review B, 2014, 89, .	3.2	15
32	Multiscale model approach for magnetization dynamics simulations. Physical Review B, 2016, 94, .	3.2	15
33	The interaction of transverse domain walls. Journal of Physics Condensed Matter, 2012, 24, 024209.	1.8	12
34	Accurate calculation of the transverse anisotropy of a magnetic domain wall in perpendicularly magnetized multilayers. Physical Review B, 2015, 92, .	3.2	12
35	Analytical modeling and x-ray imaging of oscillations of a single magnetic domain wall. Physical Review B, 2010, 81, .	3.2	11
36	Magnetic configurations in nanostructured Co₂MnGa thin film elements. New Journal of Physics, 2015, 17, 083030.	2.9	10

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37	Local Domain-Wall Velocity Engineering via Tailored Potential Landscapes in Ferromagnetic Rings. Physical Review Applied, 2016, 5, .	3.8	10
38	Magnetic domain-wall depinning with reduced current density by short pulse rise time. Applied Physics Letters, 2010, 97, .	3.3	8
39	Two-dimensional simulation of optical coherence tomography images. Scientific Reports, 2019, 9, 12189.	3.3	8
40	Fast and Accurate Calculation of the Demagnetization Tensor for Systems With Periodic Boundary Conditions. IEEE Transactions on Magnetics, 2013, 49, 4749-4755.	2.1	6
41	Domain wall spin structures in mesoscopic Fe rings probed by high resolution SEMPA. Journal Physics D: Applied Physics, 2016, 49, 425004.	2.8	6
42	Energy density distribution of light inside two-dimensional randomly scattering slabs illuminated by a plane wave. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 235, 40-48.	2.3	6
43	Influence of the winding number on field- and current driven dynamics of magnetic vortices and antivortices. Journal of Applied Physics, 2012, 112, 013917.	2.5	5
44	Domain wall transformations and hopping in La0.7Sr0.3MnO3nanostructures imaged with high resolution x-ray magnetic microscopy. Journal of Physics Condensed Matter, 2014, 26, 456003.	1.8	5
45	Distribution of light inside three-dimensional scattering slabs: Comparison of radiative transfer and electromagnetic theory. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 277, 107987.	2.3	5
46	Thermal effects in spin-torque assisted domain wall depinning. Physical Review B, 2012, 86, .	3.2	4
47	Route towards cylindrical cloaking at visible frequencies using an optimization algorithm. Physical Review B, 2012, 86, .	3.2	4
48	Topological Defects in Nanostructuresâ€"Chiral Domain Walls and Skyrmions. Springer Series in Materials Science, 2016, , 199-218.	0.6	3
49	Current-induced domain-wall motion in permalloy semi rings. Journal of Magnetism and Magnetic Materials, 2007, 316, e966-e968.	2.3	2
50	Phase-optimization wavefront shaping simulations in two-dimensional scattering media based on Maxwell's equations. , 2019, , .		0