Bastian Pfau

List of Publications by Year
in descending order

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77	2,786	218677	175258
papers	citations	26	52
		h-index	g-index

80	80	80	3208
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Real-time spatial characterization of micrometer-sized X-ray free-electron laser beams focused by bendable mirrors. Optics Express, 2022, 30, 20980.	3.4	6
2	Deterministic Generation and Guided Motion of Magnetic Skyrmions by Focused He⁺-Ion Irradiation. Nano Letters, 2022, 22, 4028-4035.	9.1	24
3	Photon correlation spectroscopy with heterodyne mixing based on soft x-ray magnetic circular dichroism. Physical Review B, 2022, 105, .	3.2	4
4	Ultrafast element- and depth-resolved magnetization dynamics probed by transverse magneto-optical Kerr effect spectroscopy in the soft x-ray range. Physical Review Research, 2022, 4, .	3.6	8
5	Laser-driven soft-X-ray source for resonant magnetic scattering. , 2022, , .		0
6	Table-top X-ray magnetic circular dichroism at the Fe L edges. , 2022, , .		0
7	Observation of fluctuation-mediated picosecond nucleation of a topological phase. Nature Materials, 2021, 20, 30-37.	27.5	68
8	The patterning toolbox FIB-o-mat: Exploiting the full potential of focused helium ions for nanofabrication. Beilstein Journal of Nanotechnology, 2021, 12, 304-318.	2.8	13
9	Application concepts for ultrafast laser-induced skyrmion creation and annihilation. Applied Physics Letters, 2021, 118, .	3.3	23
10	Quantitative hyperspectral coherent diffractive imaging spectroscopy of a solid-state phase transition in vanadium dioxide. Science Advances, 2021, 7, .	10.3	12
11	Laser-driven resonant magnetic soft-x-ray scattering for probing ultrafast antiferromagnetic and structural dynamics. Optica, 2021, 8, 1237.	9.3	8
12	High-speed spatial encoding of modulated pumpâ€“probe signals with slow area detectors. Measurement Science and Technology, 2021, 32, 025901.	2.6	4
13	Ultrafast Demagnetization Dominates Fluence Dependence of Magnetic Scattering at Co <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>M</mml:mi></mml:math> Edges. Physical Review Letters, 2020, 125, 127201.	7.8	15
14	A tabletop setup for ultrafast helicity-dependent and element-specific absorption spectroscopy and scattering in the extreme ultraviolet spectral range. Review of Scientific Instruments, 2020, 91, 093001.	1.3	15
15	Transient magnetic gratings on the nanometer scale. Structural Dynamics, 2020, 7, 054501.	2.3	16
16	Nanoscale Imaging of Highâ€Field Magnetic Hysteresis in Meteoritic Metal Using Xâ€Ray Holography. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009044.	2.5	12
17	Achieving diffraction-limited resolution in soft-X-ray Fourier-transform holography. Ultramicroscopy, 2020, 214, 113005.	1.9	12
18	Singleshot polychromatic coherent diffractive imaging with a high-order harmonic source. Optics Express, 2020, 28, 394.	3.4	10

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19	X-Ray Holography. , 2020, , 1295-1335.		0
20	First commissioning results of the KB mirrors at the SCS instrument of the European XFEL. , 2019, , .		1
21	2D and 3D Nanoscale Imaging Using High Repetition Rate Laboratory-Based Soft X-Ray Sources. Springer Proceedings in Physics, 2018, , 265-272.	0.2	0
22	In situ single-shot diffractive fluence mapping for X-ray free-electron laser pulses. Nature Communications, 2018, 9, 214.	12.8	18
23	Fast current-driven domain walls and small skyrmions in a compensated ferrimagnet. Nature Nanotechnology, 2018, 13, 1154-1160.	31.5	406
24	Imaging Nanometer Phase Coexistence at Defects During the Insulatorâ€“Metal Phase Transformation in VO₂ Thin Films by Resonant Soft X-ray Holography. Nano Letters, 2018, 18, 3449-3453.	9.1	24
25	Multi-color imaging of magnetic Co/Pt heterostructures. Structural Dynamics, 2017, 4, 014301.	2.3	32
26	Generating circularly polarized radiation in the extreme ultraviolet spectral range at the free-electron laser FLASH. Review of Scientific Instruments, 2017, 88, 053903.	1.3	29
27	Multi-Color Imaging of Magnetic Co/Pt Multilayers. IEEE Transactions on Magnetics, 2017, 53, 1-5.	2.1	4
28	Three-dimensional characterization of Co/Pd multilayer thin films using resonant soft x-ray scattering. Physical Review B, 2017, 95, .	3.2	4
29	Field-free deterministic ultrafast creation of magnetic skyrmions by spinâ€“orbit torques. Nature Nanotechnology, 2017, 12, 1040-1044.	31.5	215
30	A general approach to obtain soft x-ray transparency for thin films grown on bulk substrates. Review of Scientific Instruments, 2017, 88, 103701.	1.3	5
31	Thermally induced magnetic switching in bit-patterned media. Journal of Applied Physics, 2017, 122, .	2.5	4
32	Experimental evaluation of signal-to-noise in spectro-holography via modified uniformly redundant arrays in the soft x-ray and extreme ultraviolet spectral regime. Journal of Optics (United Kingdom), 2017, 19, 064002.	2.2	7
33	Indirect excitation of ultrafast demagnetization. Scientific Reports, 2016, 6, 18970.	3.3	61
34	Imaging Non-Local Magnetization Dynamics. Synchrotron Radiation News, 2016, 29, 26-31.	0.8	0
35	Holography-guided ptychography with soft X-rays. Optics Express, 2016, 24, 1840.	3.4	15
36	X-Ray Holography. , 2016, , 1093-1133.		11

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37	Curved gratings as an integrated photon fluence monitor in x-ray transmission scattering experiments. Optics Express, 2016, 24, 13091.	3.4	10
38	Dynamics and inertia of skyrmionic spinÂstructures. Nature Physics, 2015, 11, 225-228.	16.7	304
39	X-Ray Holography. , 2015, , 1-36.		0
40	Extracting depth information of 3-dimensional structures from a single-view X-ray Fourier-transform hologram. Optics Express, 2014, 22, 24959.	3.4	15
41	Influence of stray fields on the switching-field distribution for bit-patterned media based on pre-patterned substrates. Applied Physics Letters, 2014, 105, .	3.3	25
42	Monolithic focused reference beam X-ray holography. Nature Communications, 2014, 5, 3008.	12.8	37
43	Stimulation of primary osteoblasts with ATP induces transient vinculin clustering at sites of high intracellular traction force. Journal of Molecular Histology, 2014, 45, 81-89.	2.2	3
44	Imaging Ultrafast Demagnetization Dynamics after a Spatially Localized Optical Excitation. Physical Review Letters, 2014, 112, .	7.8	113
45	Exploration of magnetic fluctuations in PdFe films. Journal of Physics Condensed Matter, 2013, 25, 266001.	1.8	14
46	Endstation for ultrafast magnetic scattering experiments at the free-electron laser in Hamburg. Review of Scientific Instruments, 2013, 84, 013906.	1.3	2
47	Magnetic states in low-pinning high-anisotropy material nanostructures suitable for dynamic imaging. Physical Review B, 2013, 87, .	3.2	17
48	High-resolution magnetic-domain imaging by Fourier transform holography at 21 nm wavelength. New Journal of Physics, 2013, 15, 093042.	2.9	30
49	Ultrafast Dynamics of Magnetic Domain Structures Probed by Coherent Free-Electron Laser Light. Synchrotron Radiation News, 2013, 26, 27-32.	0.8	9
50	Breakdown of the X-Ray Resonant Magnetic Scattering Signal during Intense Pulses of Extreme Ultraviolet Free-Electron-Laser Radiation. Physical Review Letters, 2013, 110, 234801.	7.8	37
51	Soft x-ray tomoholography. New Journal of Physics, 2012, 14, 013022.	2.9	21
52	Holographically aided iterative phase retrieval. Optics Express, 2012, 20, 29210.	3.4	19
53	Method for Single-Shot Coherent Diffractive Imaging of Magnetic Domains. Physical Review Letters, 2012, 108, 223902.	7.8	16
54	Time-resolved study of the crystallization dynamics in a metallic glass. Physical Review B, 2012, 86, .	3.2	31

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55	Ultrafast optical demagnetization manipulates nanoscale spin structure in domain walls. Nature Communications, 2012, 3, 1100.	12.8	168
56	Dynamic redistribution of paxillin in bovine osteoblasts stimulated with adenosine 5â€²-triphosphate. Journal of Molecular Histology, 2012, 43, 571-580.	2.2	4
57	Femtosecond Single-Shot Imaging of Nanoscale Ferromagnetic Order in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Co</mml:mi><mml:mo>/</mml:mo><mml:mi>Pd</mml:mi></mml:math>Multilayers Using Resonant X-Ray Holography. Physical Review Letters, 2012, 108, 267403.	7.8	153
58	Origin of magnetic switching field distribution in bit patterned media based on pre-patterned substrates. Applied Physics Letters, 2011, 99, .	3.3	51
59	Skyrmions in perpendicular magnetic anisotropy dots: Imaging and simulations. , 2011, , .		0
60	Sequential femtosecond X-ray imaging. Nature Photonics, 2011, 5, 99-102.	31.4	90
61	Microscopic reversal behavior of magnetically capped nanospheres. Physical Review B, 2010, 81, .	3.2	43
62	Femtosecond pulse x-ray imaging with a large field of view. New Journal of Physics, 2010, 12, 095006.	2.9	30
63	Single-pulse resonant magnetic scattering using a soft x-ray free-electron laser. Physical Review B, 2010, 81, .	3.2	65
64	Magnetic imaging at linearly polarized x-ray sources. Optics Express, 2010, 18, 13608.	3.4	29
65	Wavefield back-propagation in high-resolution X-ray holography with a movable field of view. Optics Express, 2010, 18, 18922.	3.4	24
66	Rapid vinculin exchange dynamics at focal adhesions in primary osteoblasts following shear flow stimulation. Journal of Musculoskeletal Neuronal Interactions, 2010, 10, 92-9.	0.1	8
67	Resonant magnetic scattering with soft x-ray pulses from a free-electron laser operating at 1.59 nm. Physical Review B, 2009, 79, .	3.2	34
68	Coherent-Pulse 2D Crystallography Using a Free-Electron Laser X-Ray Source. Physical Review Letters, 2009, 102, 035502.	7.8	47
69	Atomic diffusion studied with coherent X-rays. Nature Materials, 2009, 8, 717-720.	27.5	102
70	Holographic soft X-ray omni-microscopy of biological specimens. Optics Express, 2009, 17, 6710.	3.4	44
71	Digital In-line Holography with femtosecond VUV radiation provided by the free-electron laser FLASH. Optics Express, 2009, 17, 8220.	3.4	30
72	Direct observation of field and temperature induced domain replication in dipolar coupled perpendicular anisotropy films. Physical Review B, 2008, 77, .	3.2	43

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73	Morphology of Fe/MgO(001) ultrathin films. Journal of Applied Physics, 2007, 102, 034310.	2.5	10
74	Coarsening dynamics in elastically anisotropic alloys. Physical Review B, 2006, 73, .	3.2	6
75	Detrended fluctuation analysis in x-ray photon correlation spectroscopy for determining coarsening dynamics in alloys. Physical Review E, 2006, 74, 041107.	2.1	5
76	Investigating slow dynamics in alloys using X-ray photon correlation spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2005, 238, 189-191.	1.4	5
77	Surface Diffusion and Island Growth. Defect and Diffusion Forum, 0, 263, 177-182.	0.4	4