

Niko Pontius

List of Publications by Year in descending order

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69
papers

3,885
citations

218677

26
h-index

118850

62
g-index

69
all docs

69
docs citations

69
times ranked

3608
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrafast probe of magnetization dynamics in multiferoic CoCr_2O_4 and Co_2O_3 . Physical Review B, 2022, 105, .	3.2	2
2	Exchange scaling of ultrafast angular momentum transfer in 4f antiferromagnets. Nature Materials, 2022, 21, 514-517.	27.5	12
3	Experimental confirmation of the delayed Ni demagnetization in FeNi alloy. Applied Physics Letters, 2022, 120, .	3.3	8
4	Photo-induced antiferromagnetic-ferromagnetic and spin-state transition in a double-perovskite cobalt oxide thin film. Communications Physics, 2022, 5, .	5.3	3
5	Photoinduced transient states of antiferromagnetic orderings in $\text{La}_{1/3}\text{Sr}_{2/3}\text{FeO}_3$ and SrFeO_3 thin films observed through time-resolved resonant soft x-ray scattering. New Journal of Physics, 2022, 24, 043012.	2.9	1
6	Ultrafast Optically Induced Ferromagnetic State in an Elemental Antiferromagnet. Physical Review Letters, 2021, 126, 107202.	7.8	22
7	Using the photoinduced L3 resonance shift in Fe and Ni as time reference for ultrafast experiments at low flux soft x-ray sources. Structural Dynamics, 2021, 8, 044304.	2.3	1
8	Deterministic control of an antiferromagnetic spin arrangement using ultrafast optical excitation. Communications Physics, 2020, 3, .	5.3	10
9	Flipping the helicity of X-rays from an undulator at unprecedented speed. Communications Physics, 2020, 3, .	5.3	13
10	Accelerating the laser-induced demagnetization of a ferromagnetic film by antiferromagnetic order in an adjacent layer. Physical Review B, 2020, 102, .	3.2	5
11	Probing the non-equilibrium transient state in magnetite by a jitter-free two-color X-ray pump and X-ray probe experiment. Structural Dynamics, 2018, 5, 054501.	2.3	6
12	Influence of the pump pulse wavelength on the ultrafast demagnetization of $\text{Gd}(\text{O})_1$ thin films. Journal of Physics Condensed Matter, 2017, 29, 234003.	1.8	9
13	Dynamics of space-charge acceleration of X-ray generated electrons emitted from a metal surface. Journal of Electron Spectroscopy and Related Phenomena, 2017, 220, 40-45.	1.7	4
14	Element-resolved ultrafast demagnetization rates in ferrimagnetic CoDy . Physical Review B, 2017, 96, .	3.2	11
15	Ultrafast and Energy-Efficient Quenching of Spin Order: Antiferromagnetism Beats Ferromagnetism. Physical Review Letters, 2017, 119, 197202.	7.8	49
16	Structural dynamics during laser-induced ultrafast demagnetization. Physical Review B, 2017, 95, .	3.2	21
17	Versatile soft X-ray-optical cross-correlator for ultrafast applications. Structural Dynamics, 2016, 3, 054304.	2.3	4
18	Photoinduced Demagnetization and Insulator-to-Metal Transition in Ferromagnetic Insulating BaFeO_3 Thin Films. Physical Review Letters, 2016, 116, 256402.	7.8	20

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19	Itinerant and Localized Magnetization Dynamics in Antiferromagnetic Ho. Physical Review Letters, 2016, 116, 257202.	7.8	27
20	Analysis of the halo background in femtosecond slicing experiments. Journal of Synchrotron Radiation, 2016, 23, 700-711.	2.4	9
21	Laser-pump/X-ray-probe experiments with electrons ejected from a Cu(111) target: space-charge acceleration. Journal of Synchrotron Radiation, 2016, 23, 1158-1170.	2.4	7
22	Ultrafast and Distinct Spin Dynamics in Magnetic Alloys. Spin, 2015, 05, 1550004.	1.3	81
23	Engineering Ultrafast Magnetism. Springer Proceedings in Physics, 2015, , 297-299.	0.2	1
24	Element- and time-resolved dynamics in rare-earth/transition metals alloys. Springer Proceedings in Physics, 2015, , 310-312.	0.2	0
25	The role of space charge in spin-resolved photoemission experiments. New Journal of Physics, 2014, 16, 043031.	2.9	9
26	Ultrafast reduction of the total magnetization in iron. Applied Physics Letters, 2014, 104, .	3.3	22
27	Reply to 'Optical excitation of thin magnetic layers in multilayer structures'. Nature Materials, 2014, 13, 102-103.	27.5	11
28	Ultrafast angular momentum transfer in multisublattice ferrimagnets. Nature Communications, 2014, 5, 3466.	12.8	91
29	FemtoSpeX: a versatile optical pump-soft X-ray probe facility with 100â€¦fs X-ray pulses of variable polarization. Journal of Synchrotron Radiation, 2014, 21, 1090-1104.	2.4	71
30	Speed limit of the insulator-metal transition in magnetite. Nature Materials, 2013, 12, 882-886.	27.5	121
31	Stimulated X-ray emission for materials science. Nature, 2013, 501, 191-194.	27.8	102
32	The confocal plane grating spectrometer at BESSY II. Journal of Electron Spectroscopy and Related Phenomena, 2013, 188, 133-139.	1.7	9
33	Ultrafast spin transport as key to femtosecond demagnetization. Nature Materials, 2013, 12, 332-336.	27.5	262
34	Role of critical spin fluctuations in ultrafast demagnetization of transition-metal rare-earth alloys. Physical Review B, 2013, 87, .	3.2	50
35	A novel monochromator for experiments with ultrashort X-ray pulses. Journal of Synchrotron Radiation, 2013, 20, 522-530.	2.4	27
36	Time and momentum resolved resonant magnetic x-ray diffraction on EuTe. EPJ Web of Conferences, 2013, 41, 03014.	0.3	0

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37	Time-resolved x-ray magnetic circular dichroism study of ultrafast demagnetization in a CoPd ferromagnetic film excited by circularly polarized laser pulse. Physical Review B, 2012, 86, .	3.2	30
38	Ultrafast magnetism as seen by x-rays. Proceedings of SPIE, 2012, , .	0.8	3
39	Time-resolved resonant soft x-ray diffraction with free-electron lasers: Femtosecond dynamics across the Verwey transition in magnetite. Applied Physics Letters, 2011, 98, .	3.3	35
40	Transient ferromagnetic-like state mediating ultrafast reversal of antiferromagnetically coupled spins. Nature, 2011, 472, 205-208.	27.8	828
41	Hot-Electron-Driven Enhancement of Spin-Lattice Coupling in Gd and Tb $4 < \text{f} >$ Ferromagnets Observed by Femtosecond X-Ray Magnetic Circular Dichroism. Physical Review Letters, 2011, 106, 127401.	7.8	151
42	Distinguishing the ultrafast dynamics of spin and orbital moments in solids. Nature, 2010, 465, 458-461.	27.8	362
43	Laser-induced generation and quenching of magnetization on FeRh studied with time-resolved x-ray magnetic circular dichroism. Physical Review B, 2010, 81, .	3.2	61
44	Femtosecond x-ray absorption spectroscopy of spin and orbital angular momentum in photoexcited Ni films during ultrafast demagnetization. Physical Review B, 2010, 81, .	3.2	61
45	Ultrafast dynamics of antiferromagnetic order studied by femtosecond resonant soft x-ray diffraction. Applied Physics Letters, 2010, 97, 062502.	3.3	21
46	Spectral properties of Cs and Ba on Cu(111) at very low coverage: Two-photon photoemission spectroscopy and electronic structure theory. Physical Review B, 2009, 80, .	3.2	18
47	Transient electronic and magnetic structures of nickel heated by ultrafast laser pulses. Physical Review B, 2009, 80, .	3.2	23
48	Ultrashort soft x-ray pulses from a femtosecond slicing source for time-resolved laser pump- x-ray probe experiments. Springer Series in Chemical Physics, 2009, , 119-121.	0.2	1
49	X-ray Absorption Spectroscopy on the fs Time Scale: Ultrafast Electron and Spin Dynamics in Nickel. Springer Series in Chemical Physics, 2009, , 194-196.	0.2	0
50	Electronic potential of a chemisorption interface. Physical Review B, 2008, 78, .	3.2	70
51	Metal-to-ligand and ligand-to-metal charge transfer in thin films of Prussian blue analogues investigated by X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2008, 10, 5882.	2.8	48
52	Ultrafast Electron and Spin Dynamics in Nickel Probed With Femtosecond X-Ray Pulses. IEEE Transactions on Magnetics, 2008, 44, 1957-1961.	2.1	6
53	$\text{f} < \text{f} >$ Resonance of Chemisorbed Alkali Atoms on Noble Metals. Physical Review Letters, 2008, 101, 266801.	7.8	30
54	Femtosecond Microscopy of Surface Plasmon Polariton Wave Packet Evolution at the Silver/Vacuum Interface. Nano Letters, 2007, 7, 470-475.	9.1	264

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55	Femtosecond modification of electron localization and transfer of angular momentum in nickel. <i>Nature Materials</i> , 2007, 6, 740-743.	27.5	464
56	An x-ray autocorrelator and delay line for the VUV-FEL at TTF/DESY. , 2005, , .		10
57	Time-resolved photoelectron spectra of Pt ₂ (N ₂) ⁺ . <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2005, 144-147, 91-96.	1.7	4
58	Simulation of two-photon photoemission from the bulksp-bands of Ag(111). <i>Physical Review B</i> , 2005, 72, .	3.2	39
59	Ultrafast relaxation dynamics of optically excited electrons in Ni ₃ ⁺ . <i>Physical Review B</i> , 2003, 67, .	3.2	30
60	Photoelectron spectroscopy of GdO ⁺ . <i>Physical Review A</i> , 2002, 65, .	2.5	17
61	Photon-Induced Thermal Desorption of CO from Small Metal-Carbonyl Clusters. <i>Physical Review Letters</i> , 2002, 88, 076102.	7.8	40
62	Time-resolved photoelectron spectra of optically excited states in Pd ₃ ⁺ . <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2001, 114-116, 163-167.	1.7	9
63	Chemisorption of benzene on metal dimer anions: A study by photoelectron detachment spectroscopy. <i>Journal of Chemical Physics</i> , 2001, 114, 8414-8420.	3.0	17
64	Size-dependent hot-electron dynamics in small Pd _n ⁺ -clusters. <i>Journal of Chemical Physics</i> , 2001, 115, 10479.	3.0	33
65	Femtosecond multi-photon photoemission of small transition metal cluster anions. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2000, 106, 107-116.	1.7	13
66	Time-resolved photo-electron spectroscopy on mass-selected metal clusters using a regenerative femtosecond amplifier up to 100ÅHz. <i>Applied Physics B: Lasers and Optics</i> , 2000, 71, 351-356.	2.2	20
67	Ultrafast Hot-Electron Dynamics Observed in Pt ₃ ⁺ Using Time-Resolved Photoelectron Spectroscopy. <i>Physical Review Letters</i> , 2000, 84, 1132-1135.	7.8	51
68	Photoelectron spectra of small LaO _n - clusters: decreasing electron affinity upon increasing the number of oxygen atoms. <i>European Physical Journal D</i> , 1999, 9, 263-267.	1.3	22
69	The FemtoSpeX facility at BESSY II. <i>Journal of Large-scale Research Facilities JLSRF</i> , 0, 2, A46.	0.0	3