

Christian Roedel

List of Publications by Year in descending order

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papers

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26
all docs

26
docs citations

26
times ranked

953
citing authors

#	ARTICLE	IF	CITATIONS
1	Harmonic Generation from Relativistic Plasma Surfaces in Ultrasteep Plasma Density Gradients. Physical Review Letters, 2012, 109, 125002.	7.8	99
2	Interference Carpets in Above-Threshold Ionization: From the Coulomb-Free to the Coulomb-Dominated Regime. Physical Review Letters, 2012, 108, 223601.	7.8	94
3	Conceptual design report for the LUXE experiment. European Physical Journal: Special Topics, 2021, 230, 2445-2560.	2.6	89
4	Relativistic Electron Streaming Instabilities Modulate Proton Beams Accelerated in Laser-Plasma Interactions. Physical Review Letters, 2017, 118, 194801.	7.8	67
5	Controlling the Spacing of Attosecond Pulse Trains from Relativistic Surface Plasmas. Physical Review Letters, 2011, 106, 185002.	7.8	51
6	High repetition rate plasma mirror for temporal contrast enhancement of terawatt femtosecond laser pulses by three orders of magnitude. Applied Physics B: Lasers and Optics, 2011, 103, 295-302.	2.2	46
7	Experimental observation of attosecond control over relativistic electron bunches with two-colour fields. Nature Photonics, 2017, 11, 32-35.	31.4	44
8	High repetition rate, multi-MeV proton source from cryogenic hydrogen jets. Applied Physics Letters, 2017, 111, .	3.3	42
9	Noncollinear Polarization Gating of Attosecond Pulse Trains in the Relativistic Regime. Physical Review Letters, 2015, 115, 193903.	7.8	34
10	Optical coherence tomography using broad-bandwidth XUV and soft X-ray radiation. Applied Physics B: Lasers and Optics, 2012, 106, 789-795.	2.2	28
11	On-shot characterization of single plasma mirror temporal contrast improvement. Plasma Physics and Controlled Fusion, 2018, 60, 054007.	2.1	23
12	Generation of 10^{14} W relativistic surface high-harmonic radiation at a repetition rate of 10 Hz. New Journal of Physics, 2012, 14, 065005.	2.9	20
13	All-optical structuring of laser-driven proton beam profiles. Nature Communications, 2018, 9, 5292.	12.8	16
14	Sensitivity calibration of an imaging extreme ultraviolet spectrometer-detector system for determining the efficiency of broadband extreme ultraviolet sources. Review of Scientific Instruments, 2013, 84, 023101.	1.3	15
15	Particle and x-ray generation by irradiation of gaseous and solid targets with a 100%TW laser pulse. Plasma Physics and Controlled Fusion, 2009, 51, 124049.	2.1	14
16	Near-monochromatic high-harmonic radiation from relativistic laser-plasma interactions with blazed grating surfaces. New Journal of Physics, 2013, 15, 025042.	2.9	13
17	Nanometer-scale characterization of laser-driven compression, shocks, and phase transitions, by x-ray scattering using free electron lasers. Physics of Plasmas, 2017, 24, .	1.9	12
18	Analysis of laser-proton acceleration experiments for development of empirical scaling laws. Physical Review E, 2021, 104, 045210.	2.1	12

#	ARTICLE	IF	CITATIONS
19	A sensitive EUV Schwarzschild microscope for plasma studies with sub-micrometer resolution. Review of Scientific Instruments, 2018, 89, 023703.	1.3	10
20	Long-term operation of surface high-harmonic generation from relativistic oscillating mirrors using a spooling tape. Optics Express, 2015, 23, 12321.	3.4	7
21	Note: A large aperture four-mirror reflective wave-plate for high-intensity short-pulse laser experiments. Review of Scientific Instruments, 2012, 83, 036104.	1.3	6
22	Nanoscale subsurface dynamics of solids upon high-intensity femtosecond laser irradiation observed by grazing-incidence x-ray scattering. Physical Review Research, 2022, 4, .	3.6	5
23	Thomson backscattering from laser-generated, relativistically moving high-density electron layers. New Journal of Physics, 2012, 14, 093018.	2.9	4
24	Broadband XUV polarimetry of high harmonics from plasma surfaces using multiple Fresnel reflections. Applied Physics B: Lasers and Optics, 2015, 118, 241-245.	2.2	3
25	Dynamics of Relativistically Oscillating Mirrors. , 2013, , .		0
26	Laser acceleration in the radiation-pressure-regime from ultra-thin polymer foils. , 2012, , .		0