

Alexander Koehler

List of Publications by Year in descending order

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Version: 2024-02-01

24
papers

941
citations

623734

14
h-index

713466

21
g-index

24
all docs

24
docs citations

24
times ranked

1014
citing authors

#	ARTICLE	IF	CITATIONS
1	A compact synchrotron radiation source driven by a laser-plasma wakefield accelerator. <i>Nature Physics</i> , 2008, 4, 130-133.	16.7	313
2	Demonstration of a beam loaded nanocoulomb-class laser wakefield accelerator. <i>Nature Communications</i> , 2017, 8, 487.	12.8	124
3	Diagnostics for plasma-based electron accelerators. <i>Reviews of Modern Physics</i> , 2018, 90, .	45.6	107
4	First results with the novel petawatt laser acceleration facility in Dresden. <i>Journal of Physics: Conference Series</i> , 2017, 874, 012028.	0.4	68
5	Radiative signatures of the relativistic Kelvin-Helmholtz instability. , 2013, , .		57
6	Making spectral shape measurements in inverse Compton scattering a tool for advanced diagnostic applications. <i>Scientific Reports</i> , 2018, 8, 1398.	3.3	34
7	Demonstration of a compact plasma accelerator powered by laser-accelerated electron beams. <i>Nature Communications</i> , 2021, 12, 2895.	12.8	31
8	Calibration and cross-laboratory implementation of scintillating screens for electron bunch charge determination. <i>Review of Scientific Instruments</i> , 2018, 89, 093303.	1.3	29
9	Tomographic characterisation of gas-jet targets for laser wakefield acceleration. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 830, 504-509.	1.6	28
10	Direct Observation of Plasma Waves and Dynamics Induced by Laser-Accelerated Electron Beams. <i>Physical Review X</i> , 2019, 9, .	8.9	19
11	Probing ultrafast magnetic-field generation by current filamentation instability in femtosecond relativistic laser-matter interactions. <i>Physical Review Research</i> , 2020, 2, .	3.6	19
12	Linear and non-linear Thomson-scattering x-ray sources driven by conventionally and laser plasma accelerated electrons. <i>Proceedings of SPIE</i> , 2009, , .	0.8	16
13	Improved performance of laser wakefield acceleration by tailored self-truncated ionization injection. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 044015.	2.1	16
14	Coherent Optical Signatures of Electron Microbunching in Laser-Driven Plasma Accelerators. <i>Physical Review Letters</i> , 2020, 125, 014801.	7.8	15
15	How to test and verify radiation diagnostics simulations within particle-in-cell frameworks. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 740, 250-256.	1.6	14
16	Compact spectroscopy of keV to MeV X-rays from a laser wakefield accelerator. <i>Scientific Reports</i> , 2021, 11, 14368.	3.3	12
17	Single-shot betatron source size measurement from a laser-wakefield accelerator. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 829, 265-269.	1.6	11
18	Hybrid LWFAâ€“PWFA staging as a beam energy and brightness transformer: conceptual design and simulations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180175.	3.4	11

#	ARTICLE	IF	CITATIONS
19	Multioctave high-dynamic range optical spectrometer for single-pulse, longitudinal characterization of ultrashort electron bunches. <i>Physical Review Accelerators and Beams</i> , 2022, 25, .	1.6	6
20	Quantitatively consistent computation of coherent and incoherent radiation in particle-in-cell codes – A general form factor formalism for macro-particles. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 909, 419-422.	1.6	4
21	Restoring betatron phase coherence in a beam-loaded laser-wakefield accelerator. <i>Physical Review Accelerators and Beams</i> , 2021, 24, .	1.6	4
22	Charge calibration of DRZ scintillation phosphor screens. <i>Journal of Instrumentation</i> , 2019, 14, P09025-P09025.	1.2	3
23	Observations of Coherent Optical Transition Radiation Interference Fringes Generated by Laser Plasma Accelerator Electron Beamlets. , 2018, , .		0
24	Advanced Methods for Temporal Reconstruction of Modulated Electron Bunches. , 2018, , .		0