

Zhirong Huang

List of Publications by Year in descending order

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59
papers

2,981
citations

257450

24
h-index

168389

53
g-index

60
all docs

60
docs citations

60
times ranked

2724
citing authors

#	ARTICLE	IF	CITATIONS
1	Linac Coherent Light Source: The first five years. <i>Reviews of Modern Physics</i> , 2016, 88, .	45.6	477
2	Review of x-ray free-electron laser theory. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2007, 10, .	1.8	433
3	Tunable isolated attosecond X-ray pulses with gigawatt peak power from a free-electron laser. <i>Nature Photonics</i> , 2020, 14, 30-36.	31.4	283
4	Compact X-ray Free-Electron Laser from a Laser-Plasma Accelerator Using a Transverse-Gradient Undulator. <i>Physical Review Letters</i> , 2012, 109, 204801.	7.8	183
5	Three-dimensional analysis of harmonic generation in high-gain free-electron lasers. <i>Physical Review E</i> , 2000, 62, 7295-7308.	2.1	134
6	Formulas for coherent synchrotron radiation microbunching in a bunch compressor chicane. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2002, 5, .	1.8	132
7	Fresh-slice multicolour X-ray free-electron lasers. <i>Nature Photonics</i> , 2016, 10, 745-750.	31.4	131
8	Polarization control in an X-ray free-electron laser. <i>Nature Photonics</i> , 2016, 10, 468-472.	31.4	116
9	Recent advances in ultrafast X-ray sources. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180384.	3.4	89
10	Fully Coherent X-Ray Pulses from a Regenerative-Amplifier Free-Electron Laser. <i>Physical Review Letters</i> , 2006, 96, 144801.	7.8	60
11	Attosecond transient absorption spooktroscopy: a ghost imaging approach to ultrafast absorption spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 2704-2712.	2.8	41
12	Attosecond coherent electron motion in Auger-Meitner decay. <i>Science</i> , 2022, 375, 285-290.	12.6	40
13	SACLA hard-X-ray compact FEL. <i>Nature Photonics</i> , 2012, 6, 505-506.	31.4	39
14	Statistical analysis of crossed undulator for polarization control in a self-amplified spontaneous emission free electron laser. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2008, 11, .	1.8	38
15	High-Power Femtosecond Soft X Rays from Fresh-Slice Multistage Free-Electron Lasers. <i>Physical Review Letters</i> , 2018, 120, 264801.	7.8	38
16	Electron beam energy chirp control with a rectangular corrugated structure at the Linac Coherent Light Source. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2015, 18, .	1.8	37
17	Purified self-amplified spontaneous emission free-electron lasers with slippage-boosted filtering. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2013, 16, .	1.8	36
18	Characterizing isolated attosecond pulses with angular streaking. <i>Optics Express</i> , 2018, 26, 4531.	3.4	35

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19	Radiation Reaction in a Continuous Focusing Channel. <i>Physical Review Letters</i> , 1995, 74, 1759-1762.	7.8	32
20	Generation of High-Power High-Intensity Short X-Ray Free-Electron-Laser Pulses. <i>Physical Review Letters</i> , 2018, 120, 014801.	7.8	31
21	Two-bunch self-seeding for narrow-bandwidth hard x-ray free-electron lasers. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2010, 13, .	1.8	30
22	Refractive Guide Switching a Regenerative Amplifier Free-Electron Laser for High Peak and Average Power Hard X Rays. <i>Physical Review Letters</i> , 2020, 125, 254801.	7.8	25
23	High wavevector temporal speckle correlations at the Linac Coherent Light Source. <i>Optics Express</i> , 2012, 20, 9790.	3.4	24
24	Microbunching-instability-induced sidebands in a seeded free-electron laser. <i>Physical Review Accelerators and Beams</i> , 2016, 19, .	1.6	24
25	Compact beam transport system for free-electron lasers driven by a laser plasma accelerator. <i>Physical Review Accelerators and Beams</i> , 2017, 20, .	1.6	23
26	Dispersion-Based Fresh-Slice Scheme for Free-Electron Lasers. <i>Physical Review Letters</i> , 2018, 120, 264802.	7.8	21
27	3D theory of a high-gain free-electron laser based on a transverse gradient undulator. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2014, 17, .	1.8	18
28	Controllable X-Ray Pulse Trains from Enhanced Self-Amplified Spontaneous Emission. <i>Physical Review Letters</i> , 2021, 126, 104802.	7.8	18
29	Experimental observations of seed growth and accompanying pedestal contamination in a self-seeded, soft x-ray free-electron laser. <i>Physical Review Accelerators and Beams</i> , 2019, 22, .	1.6	18
30	Phase-Stable Self-Modulation of an Electron Beam in a Magnetic Wiggler. <i>Physical Review Letters</i> , 2019, 123, 214801.	7.8	17
31	Site-specific interrogation of an ionic chiral fragment during photolysis using an X-ray free-electron laser. <i>Communications Chemistry</i> , 2021, 4, .	4.5	17
32	Double chirp-taper x-ray free-electron laser for attosecond pump-probe experiments. <i>Physical Review Accelerators and Beams</i> , 2019, 22, .	1.6	17
33	Impact of electron beam quality on nonlinear harmonic generation in high-gain free-electron lasers. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2002, 5, .	1.8	16
34	Laguerre-Gaussian Mode Laser Heater for Microbunching Instability Suppression in Free-Electron Lasers. <i>Physical Review Letters</i> , 2020, 124, 134801.	7.8	16
35	Microbunch Rotation and Coherent Undulator Radiation from a Kicked Electron Beam. <i>Physical Review X</i> , 2018, 8, .	8.9	15
36	Generation of subterawatt-attosecond pulses in a soft x-ray free-electron laser. <i>Physical Review Accelerators and Beams</i> , 2016, 19, .	1.6	14

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37	Measurements of wake-induced electron beam deflection in a dechirper at the Linac Coherent Light Source. <i>Physical Review Accelerators and Beams</i> , 2017, 20, .	1.6	14
38	Laguerre-Gaussian and beamlet array as second generation laser heater profiles. <i>Physical Review Accelerators and Beams</i> , 2018, 21, .	1.6	14
39	Experimental demonstration of enhanced self-amplified spontaneous emission by photocathode temporal shaping and self-compression in a magnetic wiggler. <i>New Journal of Physics</i> , 2020, 22, 083030.	2.9	13
40	Transverse and temporal characteristics of a high-gain free-electron laser in the saturation regime. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 483, 504-509.	1.6	12
41	An X-ray Free Electron Laser Driven by an Ultimate Storage Ring. <i>Synchrotron Radiation News</i> , 2013, 26, 39-41.	0.8	12
42	The sensitivity of nonlinear harmonic generation to electron beam quality in free electron lasers. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 483, 101-106.	1.6	11
43	Transverse Beam Emittance Measurement by Undulator Radiation Power Noise. <i>Physical Review Letters</i> , 2021, 126, 134802.	7.8	11
44	Statistical properties of spontaneous synchrotron radiation with arbitrary degree of coherence. <i>Physical Review Accelerators and Beams</i> , 2020, 23, .	1.6	11
45	Eigenmode analysis of a high-gain free-electron laser based on a transverse gradient undulator. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2015, 18, .	1.8	9
46	Measurements of undulator radiation power noise and comparison with ab-initio calculations. <i>Physical Review Accelerators and Beams</i> , 2021, 24, .	1.6	8
47	Time-domain analysis of attosecond pulse generation in an x-ray free-electron laser. <i>Physical Review Accelerators and Beams</i> , 2018, 21, .	1.6	7
48	A semi-classical treatment of channeling radiation reaction. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1996, 119, 192-198.	1.4	5
49	Effects of Focusing on Radiation Damping and Quantum Excitation in Electron Storage Rings. <i>Physical Review Letters</i> , 1998, 80, 2318-2321.	7.8	5
50	Effect of an angular trajectory kick in a high-gain free-electron laser. <i>Physical Review Accelerators and Beams</i> , 2017, 20, .	1.6	5
51	Reversible beam heater for suppression of microbunching instability by transverse gradient undulators. <i>Physical Review Accelerators and Beams</i> , 2017, 20, .	1.6	5
52	Simulation analysis and optimization of fresh-slice multistage free-electron lasers. <i>Physical Review Accelerators and Beams</i> , 2020, 23, .	1.6	4
53	Impact of the wiggler coherent synchrotron radiation impedance on the beam instability and damping ring optimization. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2003, 6, .	1.8	3
54	Study of a free-electron laser driven by a laser-plasma accelerated beam at Peking University. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 925, 193-198.	1.6	2

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55	Suppression of radiation excitation in focusing environment. , 1997, , .		1
56	Statistical characterization of an x-ray FEL in the spectral domain. Proceedings of SPIE, 2017, , .	0.8	1
57	Generation and Characterization of Attosecond Pulses from an X-ray Free-electron Laser. , 2019, , .		0
58	Enhancing Linear Accelerator and X-ray Free Electron Laser Brightness with Tailored Laser-Electron Interactions. , 2020, , .		0
59	Imprinting Laser-Particle Micro-correlations to enhance X-ray Free Electron Laser Performance. , 2020, , .		0