Fei Li

List of Publications by Year
in descending order

33 papers	676 citations	759233 12 h-index	552781 26 g-index
34 all docs	34 docs citations	34 times ranked	517 citing authors

#	Article	IF	Citations
1	Generating High-Brightness Electron Beams via Ionization Injection by Transverse Colliding Lasers in a Plasma-Wakefield Accelerator. Physical Review Letters, 2013, 111, 015003.	7.8	80
2	Physics of Phase Space Matching for Staging Plasma and Traditional Accelerator Components Using Longitudinally Tailored Plasma Profiles. Physical Review Letters, 2016, 116, 124801.	7.8	73
3	Relativistic single-cycle tunable infrared pulses generated from a tailored plasma density structure. Nature Photonics, 2018, 12, 489-494.	31.4	59
4	High quality electron bunch generation using a longitudinal density-tailored plasma-based accelerator in the three-dimensional blowout regime. Physical Review Accelerators and Beams, 2017, 20, .	1.6	53
5	Phase-Space Dynamics of Ionization Injection in Plasma-Based Accelerators. Physical Review Letters, 2014, 112, 035003.	7.8	49
6	Low emittance electron beam generation from a laser wakefield accelerator using two laser pulses with different wavelengths. Physical Review Special Topics: Accelerators and Beams, 2014, 17, .	1.8	46
7	Femtosecond Probing of Plasma Wakefields and Observation of the Plasma Wake Reversal Using a Relativistic Electron Bunch. Physical Review Letters, 2017, 119, 064801.	7.8	44
8	Controlling the numerical Cerenkov instability in PIC simulations using a customized finite difference Maxwell solver and a local FFT based current correction. Computer Physics Communications, 2017, 214, 6-17.	7.5	35
9	Physical Mechanism of the Transverse Instability in Radiation Pressure Ion Acceleration. Physical Review Letters, 2016, 117, 234801.	7.8	30
10	<i>InÂSitu</i> Generation of High-Energy Spin-Polarized Electrons in a Beam-Driven Plasma Wakefield Accelerator. Physical Review Letters, 2021, 126, 054801.	7.8	28
11	On numerical errors to the fields surrounding a relativistically moving particle in PIC codes. Journal of Computational Physics, 2020, 413, 109451.	3.8	14
12	A new field solver for modeling of relativistic particle-laser interactions using the particle-in-cell algorithm. Computer Physics Communications, 2021, 258, 107580.	7.5	14
13	Accurately simulating nine-dimensional phase space of relativistic particles in strong fields. Journal of Computational Physics, 2021, 438, 110367.	3.8	13
14	Emittance preservation through density ramp matching sections in a plasma wakefield accelerator. Physical Review Accelerators and Beams, 2020, 23, .	1.6	13
15	A multi-sheath model for highly nonlinear plasma wakefields. Physics of Plasmas, 2021, 28, .	1.9	12
16	Generation of ultrahigh-brightness pre-bunched beams from a plasma cathode for X-ray free-electron lasers. Nature Communications, 2022, 13, .	12.8	11
17	Near-Ideal Dechirper for Plasma-Based Electron and Positron Acceleration Using a Hollow Channel Plasma. Physical Review Applied, 2019, 12, .	3.8	10
18	A quasi-static particle-in-cell algorithm based on an azimuthal Fourier decomposition for highly efficient simulations of plasma-based acceleration: QPAD. Computer Physics Communications, 2021, 261, 107784.	7.5	10

#	Article	IF	Citations
19	Effect of fluctuations in the down ramp plasma source profile on the emittance and current profile of the self-injected beam in a plasma wakefield accelerator. Physical Review Accelerators and Beams, 2019, 22, .	1.6	10
20	Generating high quality ultrarelativistic electron beams using an evolving electron beam driver. Physical Review Accelerators and Beams, 2020, 23, .	1.6	10
21	Physical mechanism of the electron-ion coupled transverse instability in laser pressure ion acceleration for different regimes. Physical Review E, 2018, 98, 013202.	2.1	9
22	Enabling Lorentz boosted frame particle-in-cell simulations of laser wakefield acceleration in quasi-3D geometry. Journal of Computational Physics, 2016, 316, 747-759.	3.8	8
23	Ultrabright Electron Bunch Injection in a Plasma Wakefield Driven by a Superluminal Flying Focus Electron Beam. Physical Review Letters, 2022, 128, 174803.	7.8	8
24	Low-energy-spread laser wakefield acceleration using ionization injection with a tightly focused laser in a mismatched plasma channel. Plasma Physics and Controlled Fusion, 2016, 58, 034004.	2.1	7
25	Colliding ionization injection in a plasma wakefield accelerator. Plasma Physics and Controlled Fusion, 2016, 58, 034015.	2.1	6
26	Probing plasma wakefields using electron bunches generated from a laser wakefield accelerator. Plasma Physics and Controlled Fusion, 2018, 60, 044013.	2.1	6
27	Transverse phase space diagnostics for ionization injection in laser plasma acceleration using permanent magnetic quadrupoles. Plasma Physics and Controlled Fusion, 2018, 60, 044007.	2.1	4
28	Evolution of plasma wakes in density up- and down-ramps. Plasma Physics and Controlled Fusion, 2018, 60, 024003.	2.1	4
29	Ion acceleration with an ultra-intense two-frequency laser tweezer. New Journal of Physics, 2020, 22, 052002.	2.9	3
30	Phase locked multiple rings in the radiation pressure ion acceleration process. Plasma Physics and Controlled Fusion, 2018, 60, 044016.	2.1	2
31	Tri-stage quasimonoenergetic proton acceleration from a multi-species thick target. Physics of Plasmas, 2018, 25, 073105.	1.9	2
32	Mitigation Techniques for Witness Beam Hosing in Plasma - Based Acceleration. , 2018, , .		1
33	Highly spin-polarized multi-GeV electron beams generated by single-species plasma photocathodes. Physical Review Research, 2022, 4, .	3.6	1