Luca Fedeli

List of Publications by Year
in descending order

38 papers	677 citations	471509 17 h-index	580821 25 g-index
39 all docs	39 docs citations	39 times ranked	669 citing authors

#	Article	IF	Citations
1	Laser-driven Rayleigh-Taylor instability: Plasmonic effects and three-dimensional structures. Physical Review E, 2015, 91, 013106.	2.1	65
2	Development of foam-based layered targets for laser-driven ion beam production. Plasma Physics and Controlled Fusion, 2016, 58, 034019.	2.1	61
3	Electron Acceleration by Relativistic Surface Plasmons in Laser-Grating Interaction. Physical Review Letters, 2016, 116, 015001.	7.8	53
4	Toward high-energy laser-driven ion beams: Nanostructured double-layer targets. Physical Review Accelerators and Beams, 2016, 19, .	1.6	48
5	Ultra-intense laser interaction with nanostructured near-critical plasmas. Scientific Reports, 2018, 8, 3834.	3.3	35
6	Advanced laser-driven ion sources and their applications in materials and nuclear science. Plasma Physics and Controlled Fusion, 2020, 62, 014022.	2.1	35
7	Development of x-ray radiography for high energy density physics. Physics of Plasmas, 2014, 21, .	1.9	34
8	Porting WarpX to GPU-accelerated platforms. Parallel Computing, 2021, 108, 102833.	2.1	25
9	Superintense Laser-driven Ion Beam Analysis. Scientific Reports, 2019, 9, 9202.	3.3	24
10	Probing Strong-Field QED with Doppler-Boosted Petawatt-Class Lasers. Physical Review Letters, 2021, 127, 114801.	7.8	24
11	Modeling of a chain of three plasma accelerator stages with the WarpX electromagnetic PIC code on GPUs. Physics of Plasmas, 2021, 28, .	1.9	23
12	A theoretical model of laser-driven ion acceleration from near-critical double-layer targets. Communications Physics, 2020, 3, .	5.3	22
13	Relativistic surface plasmon enhanced harmonic generation from gratings. Applied Physics Letters, 2017, 110, 051103.	3.3	21
14	Parametric investigation of laser interaction with uniform and nanostructured near-critical plasmas. European Physical Journal D, 2017, 71, 1.	1.3	19
15	Structured targets for advanced laser-driven sources. Plasma Physics and Controlled Fusion, 2018, 60, 014013.	2.1	19
16	Electron heating in subpicosecond laser interaction with overdense and near-critical plasmas. Physical Review E, 2016, 94, 053201.	2.1	18
17	Extensive study of electron acceleration by relativistic surface plasmons. Physics of Plasmas, 2018, 25, 031907.	1.9	18
18	High field plasmonics and laser-plasma acceleration in solid targets. Plasma Physics and Controlled Fusion, 2016, 58, 014004.	2.1	17

#	Article	IF	Citations
19	Vlasov simulation of laser-driven shock acceleration and ion turbulence. Plasma Physics and Controlled Fusion, 2016, 58, 034021.	2.1	16
20	Extreme Ultraviolet Beam Enhancement by Relativistic Surface Plasmons. Physical Review Letters, 2018, 120, 264803.	7.8	16
21	Particle acceleration and radiation friction effects in the filamentation instability of pair plasmas. Monthly Notices of the Royal Astronomical Society, 2015, 451, 3460-3467.	4.4	12
22	Measurement of reflectivity of spherically bent crystals using KÎ± signal from hot electrons produced by laser-matter interaction. Review of Scientific Instruments, 2015, 86, 073507.	1.3	12
23	Efficient laser-driven proton and bremsstrahlung generation from cluster-assembled foam targets. New Journal of Physics, 2021, 23, 093015.	2.9	12
24	Enhanced laser-driven hadron sources with nanostructured double-layer targets. New Journal of Physics, 2020, 22, 033045.	2.9	11
25	Phase space dynamics after the breaking of a relativistic Langmuir wave in a thermal plasma. European Physical Journal D, 2014, 68, 1.	1.3	8
26	Few-Cycle Surface Plasmon Polariton Generation by Rotating Wavefront Pulses. ACS Photonics, 2018, 5, 1068-1073.	6.6	8
27	PICSAR-QED: a Monte Carlo module to simulate strong-field quantum electrodynamics in particle-in-cell codes for exascale architectures. New Journal of Physics, 2022, 24, 025009.	2.9	6
28	Enhanced electron acceleration via ultra-intense laser interaction with structured targets. Proceedings of SPIE, 2015, , .	0.8	4
29	Extreme high field plasmonics: Electron acceleration and XUV harmonic generation from ultrashort surface plasmons. Physics of Plasmas, 2019, 26, 042114.	1.9	4
30	High Field Plasmonics. Springer Theses, 2017, , .	0.1	3
31	Quantum vacuum processes in the extremely intense light of relativistic plasma mirror sources. New Journal of Physics, 2022, 24, 065005.	2.9	3
32	A hybrid nodal-staggered pseudo-spectral electromagnetic particle-in-cell method with finite-order centering. Computer Physics Communications, 2022, 279, 108457.	7.5	1
33	Kinetic effects in the transverse filamentation instability of pair plasmas. EPJ Web of Conferences, 2015, 105, 02005.	0.3	0
34	Foam Targets for Enhanced Ion Acceleration. Springer Theses, 2017, , 99-130.	0.1	0
35	Introduction on High Intensity Laser-Plasma Interaction and High Field Plasmonics. Springer Theses, 2017, , 7-40.	0.1	0
36	Electron Acceleration with Grating Targets. Springer Theses, 2017, , 63-97.	0.1	0

#	Article	IF	Citations
37	Numerical Exploration of High Field Plasmonics in Different Scenarios. Springer Theses, 2017, , 131-163.	0.1	0
38	Numerical Tools. Springer Theses, 2017, , 41-62.	0.1	0