Ricardo A Fonseca

List of Publications by Year
in descending order

210	9,972	31976	38395
papers	citations	53 h-index	95 g-index

213	213	213	3934
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Generating multi-GeV electron bunches using single stage laser wakefield acceleration in a 3D nonlinear regime. Physical Review Special Topics: Accelerators and Beams, 2007, 10, .	1.8	710
2	Proton Shock Acceleration in Laser-Plasma Interactions. Physical Review Letters, 2004, 92, 015002.	7.8	431
3	OSIRIS: A Three-Dimensional, Fully Relativistic Particle in Cell Code for Modeling Plasma Based Accelerators. Lecture Notes in Computer Science, 2002, , 342-351.	1.3	413
4	Bright spatially coherent synchrotron X-rays from a table-top source. Nature Physics, 2010, 6, 980-983.	16.7	392
5	Collisionless shocks in laser-produced plasma generate monoenergetic high-energy proton beams. Nature Physics, 2012, 8, 95-99.	16.7	358
6	Self-Guided Laser Wakefield Acceleration beyond 1ÂGeV Using Ionization-Induced Injection. Physical Review Letters, 2010, 105, 105003.	7.8	338
7	Interpenetrating Plasma Shells: Near-Equipartition Magnetic Field Generation and Nonthermal Particle Acceleration. Astrophysical Journal, 2003, 596, L121-L124.	4.5	333
8	Near-GeV Acceleration of Electrons by a Nonlinear Plasma Wave Driven by a Self-Guided Laser Pulse. Physical Review Letters, 2009, 103, 035002.	7.8	239
9	Beam Loading in the Nonlinear Regime of Plasma-Based Acceleration. Physical Review Letters, 2008, 101, 145002.	7.8	228
10	On the role of the purely transverse Weibel instability in fast ignitor scenarios. Physics of Plasmas, 2002, 9, 2458-2461.	1.9	219
11	Laser-Driven Shock Acceleration of Monoenergetic Ion Beams. Physical Review Letters, 2012, 109, 215001.	7.8	184
12	One-to-one direct modeling of experiments and astrophysical scenarios: pushing the envelope on kinetic plasma simulations. Plasma Physics and Controlled Fusion, 2008, 50, 124034.	2.1	180
13	Near-GeV-Energy Laser-Wakefield Acceleration of Self-Injected Electrons in a Centimeter-Scale Plasma Channel. Physical Review Letters, 2004, 93, 185002.	7.8	168
14	Long-Time Evolution of Magnetic Fields in Relativistic Gamma-Ray Burst Shocks. Astrophysical Journal, 2005, 618, L75-L78.	4.5	165
15	Acceleration of electrons in the plasma wakefield of a proton bunch. Nature, 2018, 561, 363-367.	27.8	162
16	Simulations of efficient Raman amplification into the multipetawatt regime. Nature Physics, 2011, 7, 87-92.	16.7	154
17	Amplification and generation of ultra-intense twisted laser pulses via stimulated Raman scattering. Nature Communications, 2016, 7, 10371.	12.8	153
18	ION DYNAMICS AND ACCELERATION IN RELATIVISTIC SHOCKS. Astrophysical Journal, 2009, 695, L189-L193.	4.5	143

#	Article	IF	Citations
19	Exploring laser-wakefield-accelerator regimes for near-term lasers using particle-in-cell simulation in Lorentz-boosted frames. Nature Physics, 2010, 6, 311-316.	16.7	134
20	Measurements of the Critical Power for Self-Injection of Electrons in a Laser Wakefield Accelerator. Physical Review Letters, 2009, 103, 215006.	7.8	128
21	Weibel-Instability-Mediated Collisionless Shocks in the Laboratory with Ultraintense Lasers. Physical Review Letters, 2012, 108, 235004.	7.8	119
22	Laser absorption via quantum electrodynamics cascades in counter propagating laser pulses. Physics of Plasmas, 2016, 23, .	1.9	118
23	Three-dimensional Weibel instability in astrophysical scenarios. Physics of Plasmas, 2003, 10, 1979-1984.	1.9	115
24	Exploiting multi-scale parallelism for large scale numerical modelling of laser wakefield accelerators. Plasma Physics and Controlled Fusion, 2013, 55, 124011.	2.1	98
25	Beam loading by electrons in nonlinear plasma wakes. Physics of Plasmas, 2009, 16, .	1.9	96
26	All-Optical Steering of Laser-Wakefield-Accelerated Electron Beams. Physical Review Letters, 2010, 105, 215001.	7.8	94
27	Seeded QED cascades in counterpropagating laser pulses. Physical Review E, 2017, 95, 023210.	2.1	94
28	Space-Charge Effects in the Current-Filamentation or Weibel Instability. Physical Review Letters, 2006, 96, 105002.	7.8	91
29	Evidence of photon acceleration by laser wake fields. Physics of Plasmas, 2006, 13, 033108.	1.9	88
30	Ion acceleration from laser-driven electrostatic shocks. Physics of Plasmas, 2013, 20, .	1.9	85
31	Simulation of monoenergetic electron generation via laser wakefield accelerators for 5â€“25TW lasers. Physics of Plasmas, 2006, 13, 056708.	1.9	83
32	Quantum radiation reaction in head-on laser-electron beam interaction. New Journal of Physics, 2016, 18, 073035.	2.9	82
33	Global Simulation for Laser-Driven MeV Electrons in Fast Ignition. Physical Review Letters, 2004, 93, 185004.	7.8	79
34	Very High Mach-Number Electrostatic Shocks in Collisionless Plasmas. Physical Review Letters, 2006, 96, 045005.	7.8	79
35	AWAKE, The Advanced Proton Driven Plasma Wakefield Acceleration Experiment at CERN. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 76-82.	1.6	77
36	All-Optical Radiation Reaction at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:msup><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mm mathvariant="normal">W</mml:mi><mml:mo>/</mml:mo><mml:msup><mml:mrow><mml:mi>cm</mml:mi></mml:mrow><mml:mrow Physical Review Letters, 2014, 113, 134801.	7.8	74

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37	Reliable transfer on wireless sensor networks. , 0, , .		71
38	Magnetic Control of Particle Injection in Plasma Based Accelerators. Physical Review Letters, 2011, 106, 225001.	7.8	71
39	Proton-driven plasma wakefield acceleration: a path to the future of high-energy particle physics. Plasma Physics and Controlled Fusion, 2014, 56, 084013.	2.1	68
40	High Orbital Angular Momentum Harmonic Generation. Physical Review Letters, 2016, 117, 265001.	7.8	66
41	Effect of the frequency chirp on laser wakefield acceleration. New Journal of Physics, 2012, 14, 023057.	2.9	64
42	Mitigation of the Hose Instability in Plasma-Wakefield Accelerators. Physical Review Letters, 2017, 118, 174801.	7.8	64
43	EuPRAXIA Conceptual Design Report. European Physical Journal: Special Topics, 2020, 229, 3675-4284.	2.6	64
44	Characterization of transverse beam emittance of electrons from a laser-plasma wakefield accelerator in the bubble regime using betatron x-ray radiation. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	63
45	Ion acceleration from the shock front induced by hole boring in ultraintense laser-plasma interactions. Physical Review E, 2004, 70, 046414.	2.1	60
46	Horizon 2020 EuPRAXIA design study. Journal of Physics: Conference Series, 2017, 874, 012029.	0.4	60
47	LARGE-SCALE MAGNETIC FIELD GENERATION VIA THE KINETIC KELVIN-HELMHOLTZ INSTABILITY IN UNMAGNETIZED SCENARIOS. Astrophysical Journal Letters, 2012, 746, L14.	8.3	59
48	A critical review of methods and models for evaluating organizational factors in Human Reliability Analysis. Progress in Nuclear Energy, 2014, 75, 25-41.	2.9	59
49	Production of Picosecond, Kilojoule, and Petawatt Laser Pulses via Raman Amplification of Nanosecond Pulses. Physical Review Letters, 2011, 107, 105002.	7.8	57
50	Exploring the nature of collisionless shocks under laboratory conditions. Scientific Reports, 2014, 4, 3934.	3.3	57
51	dHybrid: A massively parallel code for hybrid simulations of space plasmas. Computer Physics Communications, 2007, 176, 419-425.	7.5	56
52	Mutual Attraction of Laser Beams in Plasmas: Braided Light. Physical Review Letters, 2000, 85, 2124-2127.	7.8	55
53	Dynamics and Control of Shock Shells in the Coulomb Explosion of Very Large Deuterium Clusters. Physical Review Letters, 2005, 94, 033401.	7.8	55
54	Path to AWAKE: Evolution of the concept. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 3-16.	1.6	55

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55	Particle merging algorithm for PIC codes. Computer Physics Communications, 2015, 191, 65-73.	7.5	54
56	Classical radiation reaction in particle-in-cell simulations. Computer Physics Communications, 2016, 204, 141-151.	7.5	54
57	Numerical instability due to relativistic plasma drift in EM-PIC simulations. Computer Physics Communications, 2013, 184, 2503-2514.	7.5	53
58	Implementation of a hybrid particle code with a PIC description in râ€“z and a gridless description in ï• into OSIRIS. Journal of Computational Physics, 2015, 281, 1063-1077.	3.8	49
59	Experimental Observation of Plasma Wakefield Growth Driven by the Seeded Self-Modulation of a Proton Bunch. Physical Review Letters, 2019, 122, 054801.	7.8	49
60	Experimental Observation of Proton Bunch Modulation in a Plasma at Varying Plasma Densities. Physical Review Letters, 2019, 122, 054802.	7.8	49
61	Interaction of ultrashort high-intensity laser pulses with atomic clusters. Physics of Plasmas, 2001, 8, 1084-1086.	1.9	48
62	Ion Motion in Self-Modulated Plasma Wakefield Accelerators. Physical Review Letters, 2012, 109, 145005.	7.8	47
63	Electronâ€“positron cascades in multiple-laser optical traps. Plasma Physics and Controlled Fusion, 2017, 59, 014040.	2.1	47
64	Direct observation of betatron oscillations in a laser-plasma electron accelerator. Europhysics Letters, 2008, 81, 64001.	2.0	43
65	Mechanism of generating fast electrons by an intense laser at a steep overdense interface. Physical Review E, 2011, 84, 025401.	2.1	42
66	Magnetic-Field Generation and Amplification in an Expanding Plasma. Physical Review Letters, 2014, 112, 175001.	7.8	40
67	AWAKE readiness for the study of the seeded self-modulation of a 400 GeV proton bunch. Plasma Physics and Controlled Fusion, 2018, 60, 014046.	2.1	37
68	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
69	Radiation post-processing in PIC codes. Proceedings of SPIE, 2009, , .	0.8	34
70	dc-Magnetic-Field Generation in Unmagnetized Shear Flows. Physical Review Letters, 2013, 111, 015005.	7.8	34
71	Electron-scale shear instabilities: magnetic field generation and particle acceleration in astrophysical jets. New Journal of Physics, 2014, 16, 035007.	2.9	34
72	Dynamics and control of the expansion of finite-size plasmas produced in ultraintense laser-matter interactions. Physics of Plasmas, 2007, 14, 056704.	1.9	31

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73	The interaction of a flowing plasma with a dipole magnetic field: measurements and modelling of a diamagnetic cavity relevant to spacecraft protection. Plasma Physics and Controlled Fusion, 2008, 50, 124025.	2.1	31
74	Numerical simulations of laser wakefield accelerators in optimal Lorentz frames. Computer Physics Communications, 2010, 181, 869-875.	7.5	31
75	GENERATION OF MAGNETIC FIELDS IN COSMOLOGICAL SHOCKS. Journal of the Korean Astronomical Society, 2004, 37, 533-541.	1.5	31
76	A global simulation for laser-driven MeV electrons in 50-Î¼m-diameter fast ignition targets. Physics of Plasmas, 2006, 13, 056308.	1.9	30
77	Electron trapping and acceleration by the plasma wakefield of a self-modulating proton beam. Physics of Plasmas, 2014, 21, .	1.9	29
78	The generation of magnetic fields by the Biermann battery and the interplay with the Weibel instability. Physics of Plasmas, 2016, 23, .	1.9	29
79	Elimination of the numerical Cerenkov instability for spectral EM-PIC codes. Computer Physics Communications, 2015, 192, 32-47.	7.5	27
80	Extremely intense laser-based electron acceleration in a plasma channel. Plasma Physics and Controlled Fusion, 2018, 60, 034002.	2.1	27
81	Three-dimensional characterization of high-density non-cylindrical pulsed gas jets. Journal Physics D: Applied Physics, 1999, 32, L35-L43.	2.8	26
82	On the mutual interaction between laser beams in plasmas. Physics of Plasmas, 2002, 9, 2354-2363.	1.9	26
83	Refraction of a particle beam. Nature, 2001, 411, 43-43.	27.8	24
84	Controlled shock shells and intracluster fusion reactions in the explosion of large clusters. Physical Review A, 2006, 73, .	2.5	24
85	THE NONLINEAR SATURATION OF THE NON-RESONANT KINETICALLY DRIVEN STREAMING INSTABILITY. Astrophysical Journal Letters, 2010, 711, L127-L132.	8.3	24
86	Transverse electron-scale instability in relativistic shear flows. Physical Review E, 2015, 92, 021101.	2.1	24
87	SHOCK FORMATION IN ELECTRONâ€“ION PLASMAS: MECHANISM AND TIMING. Astrophysical Journal Letters, 2015, 803, L29.	8.3	24
88	Bright <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î³</mml:mi></mml:mrow></mml:math> rays source and nonlinear Breit-Wheeler pairs in the collision of high density particle beams. Physical Review Accelerators and Beams, 2019, 22, .	1.6	24
89	A simulation study of fast ignition with ultrahigh intensity lasers. Physics of Plasmas, 2009, 16, .	1.9	23
90	Modeling of laser wakefield acceleration in Lorentz boosted frame using EM-PIC code with spectral solver. Journal of Computational Physics, 2014, 266, 124-138.	3.8	23

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91	3D PIC SIMULATIONS OF COLLISIONLESS SHOCKS AT LUNAR MAGNETIC ANOMALIES AND THEIR ROLE IN FORMING LUNAR SWIRLS. Astrophysical Journal, 2016, 830, 146.	4.5	23
92	Hybrid simulations of mini-magnetospheres in the laboratory. Plasma Physics and Controlled Fusion, 2008, 50, 074017.	2.1	21
93	A proposed demonstration of an experiment of proton-driven plasma wakefield acceleration based on CERN SPS. Journal of Plasma Physics, 2012, 78, 347-353.	2.1	21
94	Ion motion in the wake driven by long particle bunches in plasmas. Physics of Plasmas, 2014, 21, 056705.	1.9	21
95	Demonstration of laser pulse amplification by stimulated Brillouin scattering. High Power Laser Science and Engineering, 2014, 2, .	4.6	21
96	Mitigation of numerical Cerenkov radiation and instability using a hybrid finite difference-FFT Maxwell solver and a local charge conserving current deposit. Computer Physics Communications, 2015, 197, 144-152.	7.5	21
97	New criteria for efficient Raman and Brillouin amplification of laser beams in plasma. Scientific Reports, 2020, 10, 19875.	3.3	21
98	Collective refraction of a beam of electrons at a plasma-gas interface. Physical Review Special Topics: Accelerators and Beams, 2001, 4, .	1.8	19
99	Bright Gamma-Ray Flares Powered by Magnetic Reconnection in QED-strength Magnetic Fields. Astrophysical Journal, 2019, 870, 49.	4.5	19
100	Three-dimensional particle-in-cell simulations of the Weibel instability in electron-positron plasmas. IEEE Transactions on Plasma Science, 2002, 30, 28-29.	1.3	18
101	Electromagnetic Field Generation in the Downstream of Electrostatic Shocks Due to Electron Trapping. Physical Review Letters, 2014, 113, 105002.	7.8	18
102	Efficient modeling of laserâ€“plasma interactions in high energy density scenarios. Plasma Physics and Controlled Fusion, 2011, 53, 074004.	2.1	17
103	ACCELERATION IN PERPENDICULAR RELATIVISTIC SHOCKS FOR PLASMAS CONSISTING OF LEPTONS AND HADRONS. Astrophysical Journal, 2012, 755, 68.	4.5	17
104	Conditions for the onset of the current filamentation instability in the laboratory. Journal of Plasma Physics, 2018, 84, .	2.1	17
105	Plasma channels produced by a laser-triggered high-voltage discharge. Physical Review E, 2003, 68, 035402.	2.1	16
106	Magnetically assisted self-injection and radiation generation for plasma-based acceleration. Plasma Physics and Controlled Fusion, 2012, 54, 124044.	2.1	16
107	Interplay between the Weibel instability and the Biermann battery in realistic laser-solid interactions. Physical Review Research, 2020, 2, .	3.6	16
108	Electron trapping and acceleration on a downward density ramp: a two-stage approach. New Journal of Physics, 2010, 12, 045027.	2.9	15

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109	Modeling laser wakefield accelerator experiments with ultrafast particle-in-cell simulations in boosted frames. Physics of Plasmas, 2010, 17, 056705.	1.9	14
110	Optimizing laser-driven proton acceleration from overdense targets. Scientific Reports, 2016, 6, 29402.	3.3	14
111	On numerical errors to the fields surrounding a relativistically moving particle in PIC codes. Journal of Computational Physics, 2020, 413, 109451.	3.8	14
112	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
113	Dynamic load balancing with enhanced shared-memory parallelism for particle-in-cell codes. Computer Physics Communications, 2021, 259, 107633.	7.5	14
114	Hose Instability and Wake Generation by an Intense Electron Beam in a Self-Ionized Gas. Physical Review Letters, 2006, 96, 045001.	7.8	13
115	Computational studies and optimization of wakefield accelerators. Journal of Physics: Conference Series, 2008, 125, 012002.	0.4	13
116	Compton scattering in particle-in-cell codes. Journal of Plasma Physics, 2020, 86, .	2.1	13
117	Transition between Instability and Seeded Self-Modulation of a Relativistic Particle Bunch in Plasma. Physical Review Letters, 2021, 126, 164802.	7.8	13
118	Accurately simulating nine-dimensional phase space of relativistic particles in strong fields. Journal of Computational Physics, 2021, 438, 110367.	3.8	13
119	Anisotropic heating and magnetic field generation due to Raman scattering in laser-plasma interactions. Physical Review Research, 2020, 2, .	3.6	13
120	PIC Codes in New Processors: A Full Relativistic PIC Code in CUDA-Enabled Hardware With Direct Visualization. IEEE Transactions on Plasma Science, 2011, 39, 675-685.	1.3	12
121	Study of near-GeV acceleration of electrons in a non-linear plasma wave driven by a self-guided laser pulse. Plasma Physics and Controlled Fusion, 2011, 53, 014008.	2.1	12
122	The impact of kinetic effects on the properties of relativistic electronâ€“positron shocks. Plasma Physics and Controlled Fusion, 2012, 54, 125004.	2.1	12
123	Enhanced stopping of macro-particles in particle-in-cell simulations. Physics of Plasmas, 2014, 21, .	1.9	12
124	Modelling radiation emission in the transition from the classical to the quantum regime. Plasma Physics and Controlled Fusion, 2016, 58, 014035.	2.1	12
125	Formation of collisionless shocks in magnetized plasma interaction with kinetic-scale obstacles. Physics of Plasmas, 2017, 24, .	1.9	12
126	Ion acceleration in electrostatic collisionless shock: on the optimal density profile for quasi-monoenergetic beams. Plasma Physics and Controlled Fusion, 2018, 60, 035010.	2.1	12

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127	Plasma wakefield acceleration in self-ionized gas or plasmas. Physical Review E, 2003, 68, 047401.	2.1	11
128	Stability of arbitrary electron velocity distribution functions to electromagnetic modes. Physics of Plasmas, 2007, 14, 062108.	1.9	11
129	Direct Acceleration of Ions With Variable-Frequency Lasers. IEEE Transactions on Plasma Science, 2008, 36, 1857-1865.	1.3	11
130	Fully Kinetic Large-scale Simulations of the Collisionless Magnetorotational Instability. Astrophysical Journal, 2018, 859, 149.	4.5	11
131	Status of the Horizon 2020 EuPRAXIA conceptual design study*. Journal of Physics: Conference Series, 2019, 1350, 012059.	0.4	11
132	Efficient supercapacitor energy usage in mobile phones. , 2011, , .		10
133	Generalized superradiance for producing broadband coherent radiation with transversely modulated arbitrarily diluted bunches. Nature Physics, 2021, 17, 99-104.	16.7	10
134	Are we ready to transfer optical light to gamma-rays?. Physics of Plasmas, 2019, 26, .	1.9	9
135	Quantum Electrodynamics vacuum polarization solver. New Journal of Physics, 2021, 23, 095005.	2.9	9
136	Expansion of nanoplasmas and laser-driven nuclear fusion in single exploding clusters. Plasma Physics and Controlled Fusion, 2008, 50, 124049.	2.1	8
137	Simulating relativistic beam and plasma systems using an optimal boosted frame. Journal of Physics: Conference Series, 2009, 180, 012006.	0.4	8
138	Theory of multidimensional electron-scale instabilities in unmagnetized shear flows. Plasma Physics and Controlled Fusion, 2013, 55, 124031.	2.1	8
139	SEP ACCELERATION IN CME DRIVEN SHOCKS USING A HYBRID CODE. Astrophysical Journal, 2014, 792, 9.	4.5	8
140	Spatial-temporal evolution of the current filamentation instability. New Journal of Physics, 2015, 17, 043049.	2.9	8
141	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
142	Proton-driven plasma wakefield acceleration in AWAKE. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180418.	3.4	8
143	Experimental study of wakefields driven by a self-modulating proton bunch in plasma. Physical Review Accelerators and Beams, 2020, 23, .	1.6	8
144	Controlled Growth of the Self-Modulation of a Relativistic Proton Bunch in Plasma. Physical Review Letters, 2022, 129, .	7.8	8

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145	Studying ignition schemes on European laser facilities. Nuclear Fusion, 2011, 51, 094025.	3.5	7
146	Physics of collisionless shocks: theory and simulation. Plasma Physics and Controlled Fusion, 2016, 58, 014005.	2.1	7
147	Advantages to a diverging Raman amplifier. Communications Physics, 2018, 1, .	5.3	7
148	EuPRAXIA â€“ a compact, cost-efficient particle and radiation source. AIP Conference Proceedings, 2019, , .	0.4	7
149	On the use of the envelope model for down-ramp injection in laser-plasma accelerators. Plasma Physics and Controlled Fusion, 2020, 62, 024001.	2.1	7
150	Plasma Wakes Driven by Photon Bursts via Compton Scattering. Physical Review Letters, 2020, 125, 265001.	7.8	7
151	Recent results and future challenges for large scale particle-in-cell simulations of plasma-based accelerator concepts. Journal of Physics: Conference Series, 2009, 180, 012005.	0.4	6
152	Three-Dimensional Simulations of Laserâ€“Plasma Interactions at Ultrahigh Intensities. IEEE Transactions on Plasma Science, 2011, 39, 2618-2619.	1.3	6
153	Ion-channel laser growth rate and beam quality requirements. Journal of Plasma Physics, 2018, 84, .	2.1	6
154	Physical problems of artificial magnetospheric propulsion. Journal of Plasma Physics, 2005, 71, 495-501.	2.1	5
155	One-to-One Full-Scale Simulations of Laser-Wakefield Acceleration Using QuickPIC. IEEE Transactions on Plasma Science, 2008, 36, 1722-1727.	1.3	5
156	Slow down of a globally neutral relativistice^{â˜’}e⁺beam shearing the vacuum. Plasma Physics and Controlled Fusion, 2016, 58, 014025.	2.1	5
157	Proton Bunch Self-Modulation in Plasma with Density Gradient. Physical Review Letters, 2020, 125, 264801.	7.8	5
158	Mechanisms for the mitigation of the hose instability in plasma-wakefield accelerators. Physical Review Accelerators and Beams, 2019, 22, .	1.6	5
159	Three-dimensional wakes driven by intense relativistic beams in gas targets. IEEE Transactions on Plasma Science, 2005, 33, 558-559.	1.3	4
160	Publisherâ€™s Note: Near-GeV Acceleration of Electrons by a Nonlinear Plasma Wave Driven by a Self-Guided Laser Pulse [Phys. Rev. Lett.103, 035002 (2009)]. Physical Review Letters, 2009, 103, .	7.8	4
161	Streaming the Boris Pusher: a CUDA implementation. , 2009, , .		4
162	Relativistic effects on the collisionlessâ€“collisional transition of the filamentation instability in fast ignition. Journal of Plasma Physics, 2010, 76, 813-832.	2.1	4

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163	AWAKE: A Proton-Driven Plasma Wakefield Acceleration Experiment at CERN. Nuclear and Particle Physics Proceedings, 2016, 273-275, 175-180.	0.5	4
164	Robustness of raman plasma amplifiers and their potential for attosecond pulse generation. High Energy Density Physics, 2017, 23, 212-216.	1.5	4
165	Petascale particle-in-cell simulations of kinetic effects in inertial fusion energy plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 044007.	2.1	4
166	Creation and expansion of a magnetized plasma bubble for plasma propulsion. Journal of Atmospheric and Solar-Terrestrial Physics, 2005, 67, 1315-1320.	1.6	3
167	Expansion of a Plasma Cloud Into the Solar Wind. IEEE Transactions on Plasma Science, 2008, 36, 1168-1169.	1.3	3
168	Numerical simulations of LWFA for the next generation of laser systems. , 2009, , .		3
169	Laser electron acceleration with 10 PW lasers. Comptes Rendus Physique, 2009, 10, 167-175.	0.9	3
170	Benchmarking the codes VORPAL, OSIRIS, and QuickPIC with Laser Wakefield Acceleration Simulations. , 2009, , .		3
171	An experimental study of an efficient supercapacitor stacking scheme to power mobile phones. , 2011, , .		3
172	X-Ray Modeling in Laser-Wakefield Accelerators. IEEE Transactions on Plasma Science, 2011, 39, 2826-2827.	1.3	3
173	Positron plasma wakefield acceleration in a self-driven hollow channel. AIP Conference Proceedings, 2016, , .	0.4	3
174	A robust plasma-based laser amplifier via stimulated Brillouin scattering. Plasma Physics and Controlled Fusion, 2021, 63, 114004.	2.1	3
175	Simulation and experimental study of proton bunch self-modulation in plasma with linear density gradients. Physical Review Accelerators and Beams, 2021, 24, .	1.6	3
176	Experimental study of extended timescale dynamics of a plasma wakefield driven by a self-modulated proton bunch. Physical Review Accelerators and Beams, 2021, 24, .	1.6	3
177	Pulse Compression and Frequency Up-Shift with Nonlinear Plasma Waves. Physica Scripta, 2004, , 118.	2.5	2
178	The physical picture of beam loading in the blowout regime. , 2007, , .		2
179	Designing LWFA in the blowout regime. , 2007, , .		2
180	Eupraxia, A Step Toward A Plasma-Wakefield Based Accelerator With High Beam Quality. Journal of Physics: Conference Series, 2019, 1350, 012068.	0.4	2

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181	High-order harmonic generation in an electron-positron-ion plasma. Physical Review E, 2021, 103, 013206.	2.1	2
182	Slowdown of interpenetration of two counterpropagating plasma slabs due to collective effects. Physical Review E, 2022, 105, 035204.	2.1	2
183	<title>High-energy ions produced from cluster explosions</title>. , 2001, , .		1
184	SHEET CROSSING AND WAVE BREAKING IN THE LASER WAKEFIELD ACCELERATOR. International Journal of Modern Physics B, 2007, 21, 439-446.	2.0	1
185	Particle-in-cell simulations for fast ignition. Journal of Physics: Conference Series, 2008, 125, 012046.	0.4	1
186	Three-Dimensional Structure of the Laser Wakefield Accelerator in the Blowout Regime. IEEE Transactions on Plasma Science, 2008, 36, 1124-1125.	1.3	1
187	Short-wavelength magnetic structures from the plasma magnetic mode and their applications. Proceedings of SPIE, 2009, , .	0.8	1
188	Radiation in 1.5 GeV and 12 GeV Laser Wakefield Acceleration Stages from PIC Simulations. , 2010, , .		1
189	Numerical Simulation of Plasma-Based Raman Amplification of Laser Pulses to Petawatt Powers. IEEE Transactions on Plasma Science, 2011, 39, 2622-2623.	1.3	1
190	Theoretical studies of collisionless shocks for laser-acceleration of ions. , 2013, , .		1
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