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	Slowdown of interpenetration of two counterpropagating plasma slabs due to collective effects. Physical Review E, 2022, 105, 035204.	2.1	2
2	Interaction between electrostatic collisionless shocks generates strong magnetic fields. New Journal of Physics, 2022, 24, 063016.	2.9	1
3	Controlled Growth of the Self-Modulation of a Relativistic Proton Bunch in Plasma. Physical Review Letters, 2022, 129, .	7.8	8
4	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
5	Dynamic load balancing with enhanced shared-memory parallelism for particle-in-cell codes. Computer Physics Communications, 2021, 259, 107633.	7.5	14
6	Generalized superradiance for producing broadband coherent radiation with transversely modulated arbitrarily diluted bunches. Nature Physics, 2021, 17, 99-104.	16.7	10
7	High-order harmonic generation in an electron-positron-ion plasma. Physical Review E, 2021, 103, 013206.	2.1	2
8	Particle-In-Cell Simulation Using Asynchronous Tasking. Lecture Notes in Computer Science, 2021, , 482-498.	1.3	0
9	Magnetized current filaments as a source of circularly polarized light. Journal of Plasma Physics, 2021, 87, .	2.1	0
10	Transition between Instability and Seeded Self-Modulation of a Relativistic Particle Bunch in Plasma. Physical Review Letters, 2021, 126, 164802.	7.8	13
11	Accurately simulating nine-dimensional phase space of relativistic particles in strong fields. Journal of Computational Physics, 2021, 438, 110367.	3.8	13
12	Quantum Electrodynamics vacuum polarization solver. New Journal of Physics, 2021, 23, 095005.	2.9	9
13	A robust plasma-based laser amplifier via stimulated Brillouin scattering. Plasma Physics and Controlled Fusion, 2021, 63, 114004.	2.1	3
14	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
15	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
16	Boosting the performance of Brillouin amplification at sub-quarter-critical densities via reduction of parasitic Raman scattering. Plasma Physics and Controlled Fusion, 2021, 63, 124003.	2.1	1
17	Analysis of proton bunch parameters in the AWAKE experiment. Journal of Instrumentation, 2021, 16, P11031.	1.2	0
18	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

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19	Compton scattering in particle-in-cell codes. Journal of Plasma Physics, 2020, 86, .	2.1	13
20	New criteria for efficient Raman and Brillouin amplification of laser beams in plasma. Scientific Reports, 2020, 10, 19875.	3.3	21
21	On numerical errors to the fields surrounding a relativistically moving particle in PIC codes. Journal of Computational Physics, 2020, 413, 109451.	3.8	14
22	Experimental study of wakefields driven by a self-modulating proton bunch in plasma. Physical Review Accelerators and Beams, 2020, 23, .	1.6	8
23	Proton Bunch Self-Modulation in Plasma with Density Gradient. Physical Review Letters, 2020, 125, 264801.	7.8	5
24	Plasma Wakes Driven by Photon Bursts via Compton Scattering. Physical Review Letters, 2020, 125, 265001.	7.8	7
25	Anisotropic heating and magnetic field generation due to Raman scattering in laser-plasma interactions. Physical Review Research, 2020, 2, .	3.6	13
26	Interplay between the Weibel instability and the Biermann battery in realistic laser-solid interactions. Physical Review Research, 2020, 2, .	3.6	16
27	EuPRAXIA Conceptual Design Report. European Physical Journal: Special Topics, 2020, 229, 3675-4284.	2.6	64
28	Proton-driven plasma wakefield acceleration in AWAKE. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180418.	3.4	8
29	EuPRAXIA â€“ a compact, cost-efficient particle and radiation source. AIP Conference Proceedings, 2019, , .	0.4	7
30	Are we ready to transfer optical light to gamma-rays?. Physics of Plasmas, 2019, 26, .	1.9	9
31	Petascale particle-in-cell simulations of kinetic effects in inertial fusion energy plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 044007.	2.1	4
32	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
33	Experimental Observation of Proton Bunch Modulation in a Plasma at Varying Plasma Densities. Physical Review Letters, 2019, 122, 054802.	7.8	49
34	Status of the Horizon 2020 EuPRAXIA conceptual design study*. Journal of Physics: Conference Series, 2019, 1350, 012059.	0.4	11
35	Eupraxia, A Step Toward A Plasma-Wakefield Based Accelerator With High Beam Quality. Journal of Physics: Conference Series, 2019, 1350, 012068.	0.4	2
36	Bright Gamma-Ray Flares Powered by Magnetic Reconnection in QED-strength Magnetic Fields. Astrophysical Journal, 2019, 870, 49.	4.5	19

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37	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
38	Mechanisms for the mitigation of the hose instability in plasma-wakefield accelerators. Physical Review Accelerators and Beams, 2019, 22, .	1.6	5
39	Wakefields in a cluster plasma. Physical Review Accelerators and Beams, 2019, 22, .	1.6	1
40	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
41	Extremely intense laser-based electron acceleration in a plasma channel. Plasma Physics and Controlled Fusion, 2018, 60, 034002.	2.1	27
42	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
43	Acceleration of electrons in the plasma wakefield of a proton bunch. Nature, 2018, 561, 363-367.	27.8	162
44	Conditions for the onset of the current filamentation instability in the laboratory. Journal of Plasma Physics, 2018, 84, .	2.1	17
45	Ion-channel laser growth rate and beam quality requirements. Journal of Plasma Physics, 2018, 84, .	2.1	6
46	Advantages to a diverging Raman amplifier. Communications Physics, 2018, 1, .	5.3	7
47	Fully Kinetic Large-scale Simulations of the Collisionless Magnetorotational Instability. Astrophysical Journal, 2018, 859, 149.	4.5	11
48	Electronâ€“positron cascades in multiple-laser optical traps. Plasma Physics and Controlled Fusion, 2017, 59, 014040.	2.1	47
49	Seeded QED cascades in counterpropagating laser pulses. Physical Review E, 2017, 95, 023210.	2.1	94
50	Formation of collisionless shocks in magnetized plasma interaction with kinetic-scale obstacles. Physics of Plasmas, 2017, 24, .	1.9	12
51	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
52	Robustness of raman plasma amplifiers and their potential for attosecond pulse generation. High Energy Density Physics, 2017, 23, 212-216.	1.5	4
53	Horizon 2020 EuPRAXIA design study. Journal of Physics: Conference Series, 2017, 874, 012029.	0.4	60
54	Mitigation of the Hose Instability in Plasma-Wakefield Accelerators. Physical Review Letters, 2017, 118, 174801.	7.8	64

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55	An examination of the scaling laws for LWFA in the self-guided nonlinear blowout regime. AIP Conference Proceedings, 2017, , .	0.4	1
56	Physics of collisionless shocks: theory and simulation. Plasma Physics and Controlled Fusion, 2016, 58, 014005.	2.1	7
57	Laser absorption via quantum electrodynamics cascades in counter propagating laser pulses. Physics of Plasmas, 2016, 23, .	1.9	118
58	The generation of magnetic fields by the Biermann battery and the interplay with the Weibel instability. Physics of Plasmas, 2016, 23, .	1.9	29
59	Quantum radiation reaction in head-on laser-electron beam interaction. New Journal of Physics, 2016, 18, 073035.	2.9	82
60	High Orbital Angular Momentum Harmonic Generation. Physical Review Letters, 2016, 117, 265001.	7.8	66
61	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
62	AWAKE: A Proton-Driven Plasma Wakefield Acceleration Experiment at CERN. Nuclear and Particle Physics Proceedings, 2016, 273-275, 175-180.	0.5	4
63	Optimizing laser-driven proton acceleration from overdense targets. Scientific Reports, 2016, 6, 29402.	3.3	14
64	Amplification and generation of ultra-intense twisted laser pulses via stimulated Raman scattering. Nature Communications, 2016, 7, 10371.	12.8	153
65	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
66	Positron plasma wakefield acceleration in a self-driven hollow channel. AIP Conference Proceedings, 2016, , .	0.4	3
67	QED vs. classical radiation reaction in the transition regime. AIP Conference Proceedings, 2016, , .	0.4	0
68	Modeling of laser wakefield acceleration in Lorentz boosted frame using a Quasi-3D OSIRIS algorithm. AIP Conference Proceedings, 2016, , .	0.4	0
69	Classical radiation reaction in particle-in-cell simulations. Computer Physics Communications, 2016, 204, 141-151.	7.5	54
70	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
71	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
72	Modelling radiation emission in the transition from the classical to the quantum regime. Plasma Physics and Controlled Fusion, 2016, 58, 014035.	2.1	12

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73	Slow down of a globally neutral relativistice^{â˜}e⁺beam shearing the vacuum. Plasma Physics and Controlled Fusion, 2016, 58, 014025.	2.1	5
74	Raman scattering for intense high orbital angular momentum harmonic generation. , 2016, , .		0
75	10.1063/1.4946017.1. , 2016, , .		0
76	Transverse electron-scale instability in relativistic shear flows. Physical Review E, 2015, 92, 021101.	2.1	24
77	SHOCK FORMATION IN ELECTRONâ€“ION PLASMAS: MECHANISM AND TIMING. Astrophysical Journal Letters, 2015, 803, L29.	8.3	24
78	Particle merging algorithm for PIC codes. Computer Physics Communications, 2015, 191, 65-73.	7.5	54
79	Spatial-temporal evolution of the current filamentation instability. New Journal of Physics, 2015, 17, 043049.	2.9	8
80	Elimination of the numerical Cerenkov instability for spectral EM-PIC codes. Computer Physics Communications, 2015, 192, 32-47.	7.5	27
81	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
82	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
83	Electron trapping and acceleration by the plasma wakefield of a self-modulating proton beam. Physics of Plasmas, 2014, 21, .	1.9	29
84	Ion motion in the wake driven by long particle bunches in plasmas. Physics of Plasmas, 2014, 21, 056705.	1.9	21
85	Electron-scale shear instabilities: magnetic field generation and particle acceleration in astrophysical jets. New Journal of Physics, 2014, 16, 035007.	2.9	34
86	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
87	Demonstration of laser pulse amplification by stimulated Brillouin scattering. High Power Laser Science and Engineering, 2014, 2, .	4.6	21
88	Enhanced stopping of macro-particles in particle-in-cell simulations. Physics of Plasmas, 2014, 21, .	1.9	12
89	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
90	SEP ACCELERATION IN CME DRIVEN SHOCKS USING A HYBRID CODE. Astrophysical Journal, 2014, 792, 9.	4.5	8

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91	Electromagnetic Field Generation in the Downstream of Electrostatic Shocks Due to Electron Trapping. Physical Review Letters, 2014, 113, 105002.	7.8	18
92	Magnetic-Field Generation and Amplification in an Expanding Plasma. Physical Review Letters, 2014, 112, 175001.	7.8	40
93	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><mml: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
94	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
95	Exploring the nature of collisionless shocks under laboratory conditions. Scientific Reports, 2014, 4, 3934.	3.3	57
96	Numerical instability due to relativistic plasma drift in EM-PIC simulations. Computer Physics Communications, 2013, 184, 2503-2514.	7.5	53
97	Theory of multidimensional electron-scale instabilities in unmagnetized shear flows. Plasma Physics and Controlled Fusion, 2013, 55, 124031.	2.1	8
98	Ion acceleration from laser-driven electrostatic shocks. Physics of Plasmas, 2013, 20, .	1.9	85
99	Theoretical studies of collisionless shocks for laser-acceleration of ions. , 2013, , .		1
100	Exploiting multi-scale parallelism for large scale numerical modelling of laser wakefield accelerators. Plasma Physics and Controlled Fusion, 2013, 55, 124011.	2.1	98
101	dc-Magnetic-Field Generation in Unmagnetized Shear Flows. Physical Review Letters, 2013, 111, 015005.	7.8	34
102	3D simulations of pre-ionized and two-stage ionization injected laser wakefield accelerators. , 2013, , .		0
103	Modeling of laser wakefield acceleration in the Lorentz boosted frame using OSIRIS and UPIC framework. , 2013, , .		1
104	Ion Motion in Self-Modulated Plasma Wakefield Accelerators. Physical Review Letters, 2012, 109, 145005.	7.8	47
105	Magnetically assisted self-injection and radiation generation for plasma-based acceleration. Plasma Physics and Controlled Fusion, 2012, 54, 124044.	2.1	16
106	The impact of kinetic effects on the properties of relativistic electronâ€“positron shocks. Plasma Physics and Controlled Fusion, 2012, 54, 125004.	2.1	12
107	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
108	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

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109	LARGE-SCALE MAGNETIC FIELD GENERATION VIA THE KINETIC KELVIN-HELMHOLTZ INSTABILITY IN UNMAGNETIZED SCENARIOS. Astrophysical Journal Letters, 2012, 746, L14.	8.3	59
110	Laser-Driven Shock Acceleration of Monoenergetic Ion Beams. Physical Review Letters, 2012, 109, 215001.	7.8	184
111	ACCELERATION IN PERPENDICULAR RELATIVISTIC SHOCKS FOR PLASMAS CONSISTING OF LEPTONS AND HADRONS. Astrophysical Journal, 2012, 755, 68.	4.5	17
112	Effect of the frequency chirp on laser wakefield acceleration. New Journal of Physics, 2012, 14, 023057.	2.9	64
113	Weibel-Instability-Mediated Collisionless Shocks in the Laboratory with Ultraintense Lasers. Physical Review Letters, 2012, 108, 235004.	7.8	119
114	Collisionless shocks in laser-produced plasma generate monoenergetic high-energy proton beams. Nature Physics, 2012, 8, 95-99.	16.7	358
115	An experimental study of an efficient supercapacitor stacking scheme to power mobile phones. , 2011, , .		3
116	Efficient supercapacitor energy usage in mobile phones. , 2011, , .		10
117	Mechanism of generating fast electrons by an intense laser at a steep overdense interface. Physical Review E, 2011, 84, 025401.	2.1	42
118	Magnetic Control of Particle Injection in Plasma Based Accelerators. Physical Review Letters, 2011, 106, 225001.	7.8	71
119	Production of Picosecond, Kilojoule, and Petawatt Laser Pulses via Raman Amplification of Nanosecond Pulses. Physical Review Letters, 2011, 107, 105002.	7.8	57
120	Simulations of efficient Raman amplification into the multipetawatt regime. Nature Physics, 2011, 7, 87-92.	16.7	154
121	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
122	Studying ignition schemes on European laser facilities. Nuclear Fusion, 2011, 51, 094025.	3.5	7
123	Three-Dimensional Simulations of Laserâ€“Plasma Interactions at Ultrahigh Intensities. IEEE Transactions on Plasma Science, 2011, 39, 2618-2619.	1.3	6
124	X-Ray Modeling in Laser-Wakefield Accelerators. IEEE Transactions on Plasma Science, 2011, 39, 2826-2827.	1.3	3
125	Efficient modeling of laserâ€“plasma interactions in high energy density scenarios. Plasma Physics and Controlled Fusion, 2011, 53, 074004.	2.1	17
126	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

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127	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
128	Special Issue on the Numerical Simulation of Plasmas. IEEE Transactions on Plasma Science, 2010, 38, 2082-2084.	1.3	0
129	THE NONLINEAR SATURATION OF THE NON-RESONANT KINETICALLY DRIVEN STREAMING INSTABILITY. Astrophysical Journal Letters, 2010, 711, L127-L132.	8.3	24
130	Numerical simulations of laser wakefield accelerators in optimal Lorentz frames. Computer Physics Communications, 2010, 181, 869-875.	7.5	31
131	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
132	Bright spatially coherent synchrotron X-rays from a table-top source. Nature Physics, 2010, 6, 980-983.	16.7	392
133	Radiation in 1.5 GeV and 12 GeV Laser Wakefield Acceleration Stages from PIC Simulations. , 2010, , .		1
134	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
135	All-Optical Steering of Laser-Wakefield-Accelerated Electron Beams. Physical Review Letters, 2010, 105, 215001.	7.8	94
136	Exploring the future of laser-plasma acceleration with massively parallel simulations in OSIRIS. , 2010, , .		0
137	Modeling laser wakefield accelerator experiments with ultrafast particle-in-cell simulations in boosted frames. Physics of Plasmas, 2010, 17, 056705.	1.9	14
138	Electron trapping and acceleration on a downward density ramp: a two-stage approach. New Journal of Physics, 2010, 12, 045027.	2.9	15
139	Self-Guided Laser Wakefield Acceleration beyond 1ÂGeV Using Ionization-Induced Injection. Physical Review Letters, 2010, 105, 105003.	7.8	338
140	Numerical simulations of LWFA for the next generation of laser systems. , 2009, , .		3
141	Measurements of the Critical Power for Self-Injection of Electrons in a Laser Wakefield Accelerator. Physical Review Letters, 2009, 103, 215006.	7.8	128
142	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
143	Beam loading by electrons in nonlinear plasma wakes. Physics of Plasmas, 2009, 16, .	1.9	96
144	ION DYNAMICS AND ACCELERATION IN RELATIVISTIC SHOCKS. Astrophysical Journal, 2009, 695, L189-L193.	4.5	143

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145	Radiation post-processing in PIC codes. Proceedings of SPIE, 2009, , .	0.8	34
146	Laser electron acceleration with 10 PW lasers. Comptes Rendus Physique, 2009, 10, 167-175.	0.9	3
147	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
148	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
149	A simulation study of fast ignition with ultrahigh intensity lasers. Physics of Plasmas, 2009, 16, .	1.9	23
150	Short-wavelength magnetic structures from the plasma magnetic mode and their applications. Proceedings of SPIE, 2009, , .	0.8	1
151	Simulating relativistic beam and plasma systems using an optimal boosted frame. Journal of Physics: Conference Series, 2009, 180, 012006.	0.4	8
152	Towards a compact 0.1-10 MeV broadband betatron photon source. Proceedings of SPIE, 2009, , .	0.8	0
153	Streaming the Boris Pusher: a CUDA implementation. , 2009, , .		4
154	Benchmarking the codes VORPAL, OSIRIS, and QuickPIC with Laser Wakefield Acceleration Simulations. , 2009, , .		3
155	Direct Acceleration of Ions With Variable-Frequency Lasers. IEEE Transactions on Plasma Science, 2008, 36, 1857-1865.	1.3	11
156	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
157	One-to-One Full-Scale Simulations of Laser-Wakefield Acceleration Using QuickPIC. IEEE Transactions on Plasma Science, 2008, 36, 1722-1727.	1.3	5
158	Computational studies and optimization of wakefield accelerators. Journal of Physics: Conference Series, 2008, 125, 012002.	0.4	13
159	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
160	Direct observation of betatron oscillations in a laser-plasma electron accelerator. Europhysics Letters, 2008, 81, 64001.	2.0	43
161	Expansion of nanoplasmas and laser-driven nuclear fusion in single exploding clusters. Plasma Physics and Controlled Fusion, 2008, 50, 124049.	2.1	8
162	Particle-in-cell simulations for fast ignition. Journal of Physics: Conference Series, 2008, 125, 012046.	0.4	1

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163	Expansion of nanoplasmas and laser-driven nuclear fusion in single exploding clusters. AIP Conference Proceedings, 2008, , .	0.4	0
164	Laser and Plasma Accelerators Workshop 2007. IEEE Transactions on Plasma Science, 2008, 36, 1690-1693.	1.3	0
165	Hybrid simulations of mini-magnetospheres in the laboratory. Plasma Physics and Controlled Fusion, 2008, 50, 074017.	2.1	21
166	Expansion of a Plasma Cloud Into the Solar Wind. IEEE Transactions on Plasma Science, 2008, 36, 1168-1169.	1.3	3
167	Three-Dimensional Structure of the Laser Wakefield Accelerator in the Blowout Regime. IEEE Transactions on Plasma Science, 2008, 36, 1124-1125.	1.3	1
168	Beam Loading in the Nonlinear Regime of Plasma-Based Acceleration. Physical Review Letters, 2008, 101, 145002.	7.8	228
169	SHEET CROSSING AND WAVE BREAKING IN THE LASER WAKEFIELD ACCELERATOR. International Journal of Modern Physics B, 2007, 21, 439-446.	2.0	1
170	The physical picture of beam loading in the blowout regime. , 2007, , .		2
171	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
172	Designing LWFA in the blowout regime. , 2007, , .		2
173	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
174	Stability of arbitrary electron velocity distribution functions to electromagnetic modes. Physics of Plasmas, 2007, 14, 062108.	1.9	11
175	dHybrid: A massively parallel code for hybrid simulations of space plasmas. Computer Physics Communications, 2007, 176, 419-425.	7.5	56
176	Simulation of monoenergetic electron generation via laser wakefield accelerators for 5â€“25TW lasers. Physics of Plasmas, 2006, 13, 056708.	1.9	83
177	Space-Charge Effects in the Current-Filamentation or Weibel Instability. Physical Review Letters, 2006, 96, 105002.	7.8	91
178	Hose Instability and Wake Generation by an Intense Electron Beam in a Self-Ionized Gas. Physical Review Letters, 2006, 96, 045001.	7.8	13
179	A global simulation for laser-driven MeV electrons in 50-Î¼m-diameter fast ignition targets. Physics of Plasmas, 2006, 13, 056308.	1.9	30
180	Controlled shock shells and intracluster fusion reactions in the explosion of large clusters. Physical Review A, 2006, 73, .	2.5	24

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181	Very High Mach-Number Electrostatic Shocks in Collisionless Plasmas. Physical Review Letters, 2006, 96, 045005.	7.8	79
182	Evidence of photon acceleration by laser wake fields. Physics of Plasmas, 2006, 13, 033108.	1.9	88
183	Physical problems of artificial magnetospheric propulsion. Journal of Plasma Physics, 2005, 71, 495-501.	2.1	5
184	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
185	Three-dimensional wakes driven by intense relativistic beams in gas targets. IEEE Transactions on Plasma Science, 2005, 33, 558-559.	1.3	4
186	Dynamics and Control of Shock Shells in the Coulomb Explosion of Very Large Deuterium Clusters. Physical Review Letters, 2005, 94, 033401.	7.8	55
187	Long-Time Evolution of Magnetic Fields in Relativistic Gamma-Ray Burst Shocks. Astrophysical Journal, 2005, 618, L75-L78.	4.5	165
188	Modeling of E-164X Experiment. AIP Conference Proceedings, 2004, , .	0.4	0
189	Global Simulation for Laser-Driven MeV Electrons in Fast Ignition. Physical Review Letters, 2004, 93, 185004.	7.8	79
190	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
191	Ion acceleration from the shock front induced by hole boring in ultraintense laser-plasma interactions. Physical Review E, 2004, 70, 046414.	2.1	60
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