Francesco Pegoraro

List of Publications by Year in descending order

369 papers	12,756 citations	28190 55 h-index	30848 102 g-index
375 all docs	375 docs citations	375 times ranked	4224 citing authors

#	Article	IF	Citations
1	Fast Ignition by Intense Laser-Accelerated Proton Beams. Physical Review Letters, 2001, 86, 436-439.	2.9	1,154
2	Oncological hadrontherapy with laser ion accelerators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 299, 240-247.	0.9	456
3	Interaction of an ultrashort, relativistically strong laser pulse with an overdense plasma. Physics of Plasmas, 1994, 1, 745-757.	0.7	438
4	Particle injection into the wave acceleration phase due to nonlinear wake wave breaking. Physical Review E, 1998, 58, R5257-R5260.	0.8	381
5	Electric field detection in laser-plasma interaction experiments via the proton imaging technique. Physics of Plasmas, 2002, 9, 2214-2220.	0.7	378
6	â€œLight Sailâ€•Acceleration Reexamined. Physical Review Letters, 2009, 103, 085003.	2.9	292
7	Nonlinear electrodynamics of the interaction of ultra-intense laser pulses with a thin foil. Physics of Plasmas, 1998, 5, 2727-2741.	0.7	280
8	Proposed Double-Layer Target for the Generation of High-Quality Laser-Accelerated Ion Beams. Physical Review Letters, 2002, 89, 175003.	2.9	275
9	Transverse-Wake Wave Breaking. Physical Review Letters, 1997, 78, 4205-4208.	2.9	260
10	Photon Bubbles and Ion Acceleration in a Plasma Dominated by the Radiation Pressure of an Electromagnetic Pulse. Physical Review Letters, 2007, 99, 065002.	2.9	250
11	Radiation reaction effects on radiation pressure acceleration. New Journal of Physics, 2010, 12, 123005.	1.2	212
12	Macroscopic Evidence of Soliton Formation in Multiterawatt Laser-Plasma Interaction. Physical Review Letters, 2002, 88, 135002.	2.9	199
13	Theory of the ubiquitous mode. Nuclear Fusion, 1977, 17, 969-993.	1.6	154
14	Solitonlike Electromagnetic Waves behind a Superintense Laser Pulse in a Plasma. Physical Review Letters, 1999, 82, 3440-3443.	2.9	154
15	Magnetic reconnection in electron magnetohydrodynamics. Physics of Fluids B, 1992, 4, 2499-2508.	1.7	147
16	Unlimited Ion Acceleration by Radiation Pressure. Physical Review Letters, 2010, 104, 135003.	2.9	140
17	Generalized twoâ€fluid theory of nonlinear magnetic structures. Physics of Plasmas, 1994, 1, 2843-2852.	0.7	134
18	Invariants and Geometric Structures in Nonlinear Hamiltonian Magnetic Reconnection. Physical Review Letters, 1998, 80, 4430-4433.	2.9	120

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19	Radiation pressure acceleration of ultrathin foils. New Journal of Physics, 2010, 12, 045013.	1.2	120
20	Kinetic saturation of the Weibel instability in a collisionless plasma. Physical Review E, 1998, 57, 7048-7059.	0.8	119
21	Electron Vortices Produced by Ultraintense Laser Pulses. Physical Review Letters, 1996, 76, 3562-3565.	2.9	115
22	Spatial structure and time evolution of the Weibel instability in collisionless inhomogeneous plasmas. Physical Review E, 1997, 56, 963-969.	0.8	114
23	High density collimated beams of relativistic ions produced by petawatt laser pulses in plasmas. Physical Review E, 2000, 62, 7271-7281.	0.8	114
24	Relativistic laser-matter interaction and relativistic laboratory astrophysics. European Physical Journal D, 2009, 55, 483-507.	0.6	109
25	Two-Dimensional Regimes of Self-Focusing, Wake Field Generation, and Induced Focusing of a Short Intense Laser Pulse in an Underdense Plasma. Physical Review Letters, 1995, 74, 710-713.	2.9	105
26	Formation of Electromagnetic Postsolitons in Plasmas. Physical Review Letters, 2001, 87, .	2.9	105
27	Dynamic Formation of a Hot Field Reversed Configuration with Improved Confinement by Supersonic Merging of Two Colliding High-Î²Compact Toroids. Physical Review Letters, 2010, 105, 045003.	2.9	103
28	Bursts of Superreflected Laser Light from Inhomogeneous Plasmas due to the Generation of Relativistic Solitary Waves. Physical Review Letters, 1999, 83, 3434-3437.	2.9	101
29	Three-Dimensional Relativistic Electromagnetic Subcycle Solitons. Physical Review Letters, 2002, 89, 275002.	2.9	96
30	Nonlinear filamentation instability driven by an inhomogeneous current in a collisionless plasma. Physical Review E, 1998, 58, 7837-7845.	0.8	92
31	Fluid and kinetic simulation of inertial confinement fusion plasmas. Computer Physics Communications, 2005, 169, 153-159.	3.0	88
32	Computer Simulation of the Three-Dimensional Regime of Proton Acceleration in the Interaction of Laser Radiation with a Thin Spherical Target. Plasma Physics Reports, 2001, 27, 363-371.	0.3	86
33	Recent advances in collisionless magnetic reconnection. Plasma Physics and Controlled Fusion, 2002, 44, B389-B405.	0.9	84
34	Ion acceleration by superintense laser pulses in plasmas. JETP Letters, 1999, 70, 82-89.	0.4	83
35	Generation of collimated beams of relativistic ions in laser-plasma interactions. JETP Letters, 2000, 71, 407-411.	0.4	81
36	Phase Mixing and Island Saturation in Hamiltonian Reconnection. Physical Review Letters, 2001, 86, 5051-5054.	2.9	81

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37	Slide-away distributions and relevant collective modes in high-temperature plasmas. Nuclear Fusion, 1976, 16, 309-328.	1.6	75
38	High-energy components and collective modes in thermonuclear plasmas. Physics of Fluids, 1986, 29, 4060.	1.4	74
39	Hamiltonian magnetic reconnection. Plasma Physics and Controlled Fusion, 1999, 41, 1497-1515.	0.9	71
40	Production of high-quality electron beams in numerical experiments of laser wakefield acceleration with longitudinal wave breaking. Physical Review Special Topics: Accelerators and Beams, 2003, 6, .	1.8	71
41	Nonlinear development of the weibel instability and magnetic field generation in collisionless plasmas. Physica Scripta, 1996, T63, 262-265.	1.2	70
42	Dynamics of Self-Generated, Large Amplitude Magnetic Fields Following High-Intensity Laser Matter Interaction. Physical Review Letters, 2012, 109, 205002.	2.9	70
43	Theory of resistive modes in the ballooning representation. Plasma Physics and Controlled Fusion, 1986, 28, 647-667.	0.9	69
44	Asymptotic evolution of nonlinear Landau damping. Physical Review E, 2000, 62, 4109-4114.	0.8	67
45	Relativistic Interaction of Laser Pulses with Plasmas. Reviews of Plasma Physics, 2001, , 227-335.	1.0	67
46	Laser-driven Rayleigh-Taylor instability: Plasmonic effects and three-dimensional structures. Physical Review E, 2015, 91, 013106.	0.8	65
47	Internal kink modes in the ionâ€kinetic regime. Physics of Fluids B, 1989, 1, 364-374.	1.7	64
48	Surface Oscillations in Overdense Plasmas Irradiated by Ultrashort Laser Pulses. Physical Review Letters, 2001, 87, 205004.	2.9	64
49	Polarization, hosing and long time evolution of relativistic laser pulses. Physics of Plasmas, 2001, 8, 4149-4155.	0.7	63
50	Radiation-pressure-dominant acceleration: Polarization and radiation reaction effects and energy increase in three-dimensional simulations. Physical Review E, 2012, 85, 016407.	0.8	63
51	Fast Formation of Magnetic Islands in a Plasma in the Presence of Counterstreaming Electrons. Physical Review Letters, 2001, 86, 5293-5296.	2.9	61
52	Radiation reaction effects on electron nonlinear dynamics and ion acceleration in laserâ€“solid interaction. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 653, 181-185.	0.7	61
53	Hamiltonian formulation of low-frequency, nonlinear plasma dynamics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 191, 296-300.	0.9	59
54	Pressure anisotropy and small spatial scales induced by velocity shear. Physical Review E, 2016, 93, 053203.	0.8	58

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55	Quiescent window for global plasma modes. Physical Review Letters, 1989, 63, 2733-2736.	2.9	56
56	Secondary Instabilities and Vortex Formation in Collisionless-Fluid Magnetic Reconnection. Physical Review Letters, 2003, 91, 235001.	2.9	56
57	Formation of a long-lived hot field reversed configuration by dynamically merging two colliding high-Î² compact toroids. Physics of Plasmas, 2011, 18, .	0.7	56
58	On the design of experiments for the study of relativistic nonlinear optics in the limit of single-cycle pulse duration and single-wavelength spot size. Plasma Physics Reports, 2002, 28, 12-27.	0.3	55
59	Competing Mechanisms of Plasma Transport in Inhomogeneous Configurations with Velocity Shear: The Solar-Wind Interaction with Earthâ€™s Magnetosphere. Physical Review Letters, 2008, 100, 015001.	2.9	54
60	Generation of high-quality charged particle beams during the acceleration of ions by high-power laser radiation. Plasma Physics Reports, 2002, 28, 975-991.	0.3	53
61	Forced magnetic field line reconnection in electron magnetohydrodynamics. Physics of Plasmas, 1998, 5, 2849-2860.	0.7	52
62	Fundamental issues in fast ignition physics: from relativistic electron generation to proton driven ignition. Nuclear Fusion, 2003, 43, 362-368.	1.6	52
63	Global modes and highâ€energy particles in ignited plasmas. Physics of Fluids B, 1990, 2, 927-943.	1.7	50
64	Three-Dimensional Magnetic Structures Generated by the Development of the Filamentation (Weibel) Instability in the Relativistic Regime. Physical Review Letters, 2006, 96, 105008.	2.9	50
65	Aspects of three-dimensional magnetic reconnection. Physics of Plasmas, 2005, 12, 032309.	0.7	49
66	Electromagnetic detector for gravitational waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 1978, 68, 165-168.	0.9	48
67	On the operation of a tunable electromagnetic detector for gravitational waves. Journal of Physics A, 1978, 11, 1949-1962.	1.6	48
68	Low-frequency modes with high toroidal mode numbers: A general formulation. Physics of Fluids, 1981, 24, 478.	1.4	48
69	Expansion of a finite-size plasma in vacuum. Plasma Physics and Controlled Fusion, 2005, 47, 521-529.	0.9	48
70	Nonlinear evolution of the magnetized Kelvin-Helmholtz instability: From fluid to kinetic modeling. Physics of Plasmas, 2013, 20, .	0.7	48
71	Radiation pressure acceleration: The factors limiting maximum attainable ion energy. Physics of Plasmas, 2016, 23, .	0.7	48
72	Fast collisionless reconnection in the whistler frequency range. Physics of Plasmas, 2000, 7, 2381-2387.	0.7	47

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73	Magnetic reconnection and Kelvinâ€“Helmholtz instabilities at the Earth's magnetopause. Plasma Physics and Controlled Fusion, 2012, 54, 124037.	0.9	44
74	Linear stability of spherical collisionless stellar systems. Astrophysical Journal, 1994, 434, 94.	1.6	44
75	Damping of electromagnetic waves due to electron-positron pair production. Physical Review E, 2005, 71, 016404.	0.8	43
76	Neutrino oscillation studies with laser-driven beam dump facilities. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 540, 25-41.	0.7	41
77	Solitary versus shock wave acceleration in laser-plasma interactions. Physical Review E, 2012, 85, 046402.	0.8	40
78	Shear-induced pressure anisotropization and correlation with fluid vorticity in a low collisionality plasma. Monthly Notices of the Royal Astronomical Society, 2018, 475, 181-192.	1.6	40
79	Periodic equilibria of the Vlasovâ€“Maxwell system. Physics of Plasmas, 1999, 6, 767-770.	0.7	38
80	The application of laser-driven proton beams to the radiography of intense laserâ€“hohlraum interactions. New Journal of Physics, 2010, 12, 045006.	1.2	38
81	Hamiltonian magnetohydrodynamics: Helically symmetric formulation, Casimir invariants, and equilibrium variational principles. Physics of Plasmas, 2012, 19, .	0.7	38
82	Suppression of internal plasma oscillations by trapped high energy nuclei. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 132, 267-272.	0.9	37
83	Observation of Magnetized Soliton Remnants in the Wake of Intense Laser Pulse Propagation through Plasmas. Physical Review Letters, 2010, 105, 175002.	2.9	37
84	Unlimited energy gain in the laser-driven radiation pressure dominant acceleration of ions. Physics of Plasmas, 2010, 17, .	0.7	37
85	New Ion-Wave Path in the Energy Cascade. Physical Review Letters, 2011, 106, 165002.	2.9	37
86	Undamped electrostatic plasma waves. Physics of Plasmas, 2012, 19, .	0.7	37
87	Plasma Ion Evolution in the Wake of a High-Intensity Ultrashort Laser Pulse. Physical Review Letters, 2005, 94, 195003.	2.9	36
88	Single-cycle high-intensity electromagnetic pulse generation in the interaction of a plasma wakefield with regular nonlinear structures. Physical Review E, 2006, 73, 036408.	0.8	36
89	MHD equilibrium variational principles with symmetry. Plasma Physics and Controlled Fusion, 2010, 52, 055001.	0.9	36
90	Controlled wake field acceleration via laser pulse shaping. IEEE Transactions on Plasma Science, 1996, 24, 393-399.	0.6	35

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91	Numerical Evidence of Undriven, Fast Reconnection in the Solar-Wind Interaction with Earthâ€™s Magnetosphere: Formation of Electromagnetic Coherent Structures. Physical Review Letters, 2008, 101, 105001.	2.9	35
92	Small-scale electron density and magnetic-field structures in the wake of an ultraintense laser pulse. Physical Review E, 1999, 60, 5991-5997.	0.8	34
93	Nonlinear kinetic development of the Weibel instability and the generation of electrostatic coherent structures. Plasma Physics and Controlled Fusion, 2009, 51, 125006.	0.9	34
94	Hamiltonian four-field model for magnetic reconnection: nonlinear dynamics and extension to three dimensions with externally applied fields. Nuclear Fusion, 2010, 50, 034007.	1.6	34
95	Hamiltonian vortices and reconnection in a magnetized plasma. Journal of Plasma Physics, 1998, 59, 727-736.	0.7	33
96	Ion acceleration, magnetic field line reconnection, and multiple current filament coalescence of a relativistic electron beam in a plasma. Physics of Plasmas, 2002, 9, 2959-2970.	0.7	33
97	Strong field electrodynamics of a thin foil. Physics of Plasmas, 2013, 20, 123114.	0.7	33
98	Continuous Spectrum of Shear AlfvÃ©n Waves within Magnetic Islands. Physical Review Letters, 2010, 105, 095002.	2.9	32
99	Plasma equilibria with multiple ion species: Equations and algorithm. Physics of Plasmas, 2011, 18, .	0.7	32
100	Ion acceleration from thin foil and extended plasma targets by slow electromagnetic wave and related ion-ion beam instability. Physics of Plasmas, 2012, 19, .	0.7	32
101	Enhancement of Maximum Attainable Ion Energy in the Radiation Pressure Acceleration Regime Using a Guiding Structure. Physical Review Letters, 2015, 114, 105003.	2.9	32
102	Being on time in magnetic reconnection. New Journal of Physics, 2009, 11, 063008.	1.2	31
103	Two-surface wave decay. Physics of Plasmas, 2002, 9, 1704-1711.	0.7	29
104	Nonlinear model for electron phase-space holes in magnetized space plasmas. Journal of Geophysical Research, 2002, 107, SMP 15-1.	3.3	29
105	Feasibility of Using Laser Ion Accelerators in Proton Therapy. AIP Conference Proceedings, 2004, , .	0.3	29
106	Current layer cascade in collisionless electron-magnetohydrodynamic reconnection and electron compressibility effects. Physics of Plasmas, 2005, 12, 012317.	0.7	29
107	Hamiltonian magnetohydrodynamics: Lagrangian, Eulerian, and dynamically accessible stabilityâ€”Theory. Physics of Plasmas, 2013, 20, .	0.7	29
108	Extended fluid models: Pressure tensor effects and equilibria. Physics of Plasmas, 2013, 20, .	0.7	29

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109	Stabilization of collisional driftâ€tearing modes at the breakdown of the constantâ€Î¨ approximation. Physics of Fluids B, 1991, 3, 1338-1345.	1.7	28
110	Generation of subcycle relativistic solitons by super intense laser pulses in plasmas. Physica D: Nonlinear Phenomena, 2001, 152-153, 682-693.	1.3	28
111	ELECTRON PARALLEL COMPRESSIBILITY IN THE NONLINEAR DEVELOPMENT OF TWO-DIMENSIONAL COLLISIONLESS MAGNETOHYDRODYNAMIC RECONNECTION. Modern Physics Letters B, 2006, 20, 931-961.	1.0	28
112	Electron Weibel instability in relativistic counterstreaming plasmas with flow-aligned external magnetic fields. Physical Review E, 2017, 95, 023203.	0.8	28
113	Ultra-bright Î³-ray emission and dense positron production from two laser-driven colliding foils. Scientific Reports, 2017, 7, 17312.	1.6	28
114	Analytical representation and physics of ballooning modes. Annals of Physics, 1979, 121, 1-31.	1.0	27
115	Short, relativistically strong laser pulse in a narrow channel. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 195, 84-89.	0.9	27
116	Impact of Kinetic Processes on the Macroscopic Nonlinear Evolution of the Electromagnetic-Beam-Plasma Instability. Physical Review Letters, 2000, 84, 3602-3605.	2.9	27
117	Double mid-latitude dynamical reconnection at the magnetopause: An efficient mechanism allowing solar wind to enter the Earth's magnetosphere. Europhysics Letters, 2012, 100, 69001.	0.7	27
118	Magnetic Field Generation during the Collision of Electron-Ion Plasma Clouds. Journal of the Physical Society of Japan, 1998, 67, 1079-1082.	0.7	25
119	Effects of the parallel electron dynamics and finite ion temperature on the plasma blob propagation in the scrape-off layer. Physics of Plasmas, 2008, 15, .	0.7	25
120	Time Window for Magnetic Reconnection in Plasma Configurations with Velocity Shear. Physical Review Letters, 2008, 101, 175003.	2.9	25
121	MHD modes near the X-line of a magnetic configuration. Plasma Physics and Controlled Fusion, 1990, 32, 377-389.	0.9	24
122	Polarization effects and anisotropy in three-dimensional relativistic self-focusing. Physical Review E, 2002, 65, 045402.	0.8	24
123	Overview of the FTU results. Nuclear Fusion, 2009, 49, 104013.	1.6	24
124	Magnetic fields from high-intensity laser pulses in plasmas. Plasma Physics and Controlled Fusion, 1997, 39, B261-B272.	0.9	23
125	Two-dimensional electron-magnetohydrodynamic instabilities. Physics of Plasmas, 1999, 6, 2332-2339.	0.7	23
126	Ion Larmor radius effects in collisionless reconnection. Plasma Physics Reports, 2000, 26, 512-518.	0.3	23

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127	Secondary instabilities in two- and three-dimensional magnetic reconnection in fusion relevant plasmas. Physics of Plasmas, 2007, 14, 055703.	0.7	23
128	Barriers in the transition to global chaos in collisionless magnetic reconnection. I. Ridges of the finite time Lyapunov exponent field. Physics of Plasmas, 2011, 18, .	0.7	23
129	Lagrangian coherent structures and plasma transport processes. Journal of Plasma Physics, 2015, 81, .	0.7	23
130	Double-reconnected magnetic structures driven by Kelvin-Helmholtz vortices at the Earth's magnetosphere. Physics of Plasmas, 2015, 22, .	0.7	23
131	Coulomb explosion of a cluster irradiated by a high intensity laser pulse. Laser and Particle Beams, 2000, 18, 503-506.	0.4	22
132	Laser wake field acceleration with controlled self-injection by sharp density transition. Laser and Particle Beams, 2004, 22, 423-429.	0.4	22
133	On the breaking of a plasma wave in a thermal plasma. I. The structure of the density singularity. Physics of Plasmas, 2012, 19, .	0.7	22
134	Production of ion beams in high-power laserâ€“plasma interactions and their applications. Laser and Particle Beams, 2004, 22, 19-24.	0.4	21
135	Stable and unstable invariant manifolds in a partially chaotic magnetic configuration generated by nonlinear reconnection. Physics of Plasmas, 2008, 15, .	0.7	21
136	Solutions and symmetries of force-free magnetic fields. Physics of Plasmas, 2008, 15, .	0.7	21
137	On the ion acceleration by high power electromagnetic waves in the radiation pressure dominated regime. Comptes Rendus Physique, 2009, 10, 216-226.	0.3	21
138	SWIFF: Space weather integrated forecasting framework. Journal of Space Weather and Space Climate, 2013, 3, A05.	1.1	21
139	Kelvin-Helmholtz vortices and double mid-latitude reconnection at the Earth's magnetopause: Comparison between observations and simulations. Europhysics Letters, 2014, 107, 19001.	0.7	21
140	Pressure tensor in the presence of velocity shear: Stationary solutions and self-consistent equilibria. Physics of Plasmas, 2014, 21, .	0.7	21
141	Transformation of MHD modes near magnetic separatrix surfaces. Plasma Physics and Controlled Fusion, 1992, 34, 33-48.	0.9	20
142	Collisionless magnetic reconnection in the presence of a sheared velocity field. Physics of Plasmas, 2010, 17, .	0.7	20
143	Covariant form of the ideal magnetohydrodynamic â€œconnection theoremâ€•in a relativistic plasma. Europhysics Letters, 2012, 99, 35001.	0.7	20
144	Equation of state for relativistic plasma waves. Physics of Fluids, 1984, 27, 1665.	1.4	19

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145	Two-dimensional electron-magnetohydrodynamic nonlinear structures. Physics of Plasmas, 2000, 7, 889-896.	0.7	19
146	Foliation and mixing of the electron drift-kinetic distribution function in nonlinear two-dimensional magnetic reconnection. Physics of Plasmas, 2004, 11, 3535-3545.	0.7	19
147	Northâ€South Asymmetric Kelvinâ€Helmholtz Instability and Induced Reconnection at the Earth's Magnetospheric Flanks. Journal of Geophysical Research: Space Physics, 2018, 123, 9340-9356.	0.8	19
148	Drift-AlfvÃ©n vortices with finite ion gyroradius and electron inertia effects. Physics of Plasmas, 1999, 6, 713-728.	0.7	18
149	Charge separation effects in electron-magnetohydrodynamic reconnection. Physics of Plasmas, 2001, 8, 16-22.	0.7	18
150	Finite Larmor radius effects in the nonlinear dynamics of collisionless magnetic reconnection. Plasma Physics and Controlled Fusion, 2011, 53, 035008.	0.9	18
151	Slow evolution of elliptical galaxies induced by dynamical friction. Astronomy and Astrophysics, 2003, 405, 73-88.	2.1	17
152	Dependence of the ion energy on the parameters of the laser pulse and target in the radiation-pressure-dominated regime of acceleration. Plasma Physics Reports, 2010, 36, 15-29.	0.3	17
153	On the breaking of a plasma wave in a thermal plasma. II. Electromagnetic wave interaction with the breaking plasma wave. Physics of Plasmas, 2012, 19, 113103.	0.7	17
154	Theory and applications of the Vlasov equation. European Physical Journal D, 2015, 69, 1.	0.6	17
155	Nonlinear vortex dynamics in an inhomogeneous magnetized plasma with a sheared velocity field. Plasma Physics and Controlled Fusion, 2011, 53, 015003.	0.9	16
156	2D continuous spectrum of shear AlfvÃ©n waves in the presence of a magnetic island. Plasma Physics and Controlled Fusion, 2011, 53, 025009.	0.9	16
157	Magnetised Kelvin-Helmholtz instability in the intermediate regime between subsonic and supersonic regimes. Physics of Plasmas, 2012, 19, .	0.7	16
158	Tripolar shear-AlfvÃ©n vortex structures. Journal of Plasma Physics, 1998, 60, 383-391.	0.7	15
159	Kinetic Vortex Chain Solution in the Drift-Wave Plasma Regime. Physical Review Letters, 2000, 84, 95-98.	2.9	15
160	Stability of a mass accreting shell expanding in a plasma. Physical Review E, 2002, 65, 066405.	0.8	15
161	Symmetries, weak symmetries, and related solutions of the Gradâ€“Shafranov equation. Physics of Plasmas, 2010, 17, .	0.7	15
162	Coherent magnetic structures in self-organized plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 044003.	0.9	15

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163	Ion acceleration regimes in underdense plasmas. IEEE Transactions on Plasma Science, 2000, 28, 1226-1232.	0.6	14
164	Special relativity in action in laser produced plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 347, 133-142.	0.9	14
165	Solar wind interaction with the Earth's magnetosphere: the role of reconnection in the presence of a large scale sheared flow. Nonlinear Processes in Geophysics, 2009, 16, 1-10.	0.6	14
166	Coupling between reconnection and Kelvin-Helmholtz instabilities in collisionless plasmas. Nonlinear Processes in Geophysics, 2009, 16, 241-249.	0.6	14
167	Electromagnetic Burst Generation during Annihilation of Magnetic Field in Relativistic Laser-Plasma Interaction. Scientific Reports, 2019, 9, 19462.	1.6	14
168	Electromagnetic solitons in quantum vacuum. Physical Review D, 2020, 101, .	1.6	14
169	Magnetic interaction of ultrashort high-intensity laser pulses in plasmas. Plasma Physics and Controlled Fusion, 1997, 39, A137-A144.	0.9	13
170	Three-dimensional singularities of a thin plasma slab. Physical Review E, 2001, 64, 016415.	0.8	13
171	Action principle for relativistic magnetohydrodynamics. Physical Review D, 2015, 91, .	1.6	13
172	Generalised relativistic Ohm's laws, extended gauge transformations, and magnetic linking. Physics of Plasmas, 2015, 22, .	0.7	13
173	Hamiltonian magnetohydrodynamics: Lagrangian, Eulerian, and dynamically accessible stabilityâ€"Examples with translation symmetry. Physics of Plasmas, 2016, 23, 102112.	0.7	13
174	Theoretical and experimental aspects of non-equilibrium plasmas in different regimes: fundamentals and selected applications. European Physical Journal D, 2021, 75, 1.	0.6	13
175	Motion of extended vortices in an inhomogeneous pure electron plasma. Physics of Plasmas, 2000, 7, 2856-2865.	0.7	12
176	Developments in the theory of collisionless reconnection in magnetic configurations with a strong guide field. Nonlinear Processes in Geophysics, 2004, 11, 567-577.	0.6	12
177	Charged state of a spherical plasma in vacuum. Physical Review E, 2005, 71, 056407.	0.8	12
178	Effects of dust particles on the dynamics of blobs in the scrape off layer. Physics of Plasmas, 2007, 14, 083704.	0.7	12
179	Compressible Kelvin-Helmholtz instability in supermagnetosonic regimes. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	12
180	Excitation of nonlinear electrostatic waves with phase velocity close to the ion-thermal speed. Plasma Physics and Controlled Fusion, 2011, 53, 105017.	0.9	12

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181	Kelvin-Helmholtz vortices and secondary instabilities in super-magnetosonic regimes. Annales Geophysicae, 2011, 29, 1169-1178.	0.6	12
182	Coupling Between Whistler Waves and Ion-Scale Solitary Waves: Cluster Measurements in the Magnetotail During a Substorm. Physical Review Letters, 2012, 109, 155005.	2.9	12
183	Particle acceleration and radiation friction effects in the filamentation instability of pair plasmas. Monthly Notices of the Royal Astronomical Society, 2015, 451, 3460-3467.	1.6	12
184	Magnetohydrodynamic equilibria with incompressible flows: Symmetry approach. Physics of Plasmas, 2015, 22, .	0.7	12
185	Coherent transport structures in magnetized plasmas. I. Theory. Physics of Plasmas, 2018, 25, .	0.7	12
186	Birefringence induced by gravitational waves: A suggestion for a new detector. Physics Letters, Section A: General, Atomic and Solid State Physics, 1979, 73, 140-142.	0.9	11
187	Extended variable representations. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 142, 384-388.	0.9	11
188	Evolution of the frequency spectrum of a relativistically strong laser pulse in a plasma. Physica Scripta, 1996, T63, 258-261.	1.2	11
189	Nonlinear interaction of ultra-intense laser pulses with a thin foil. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 410, 493-498.	0.7	11
190	Nonlinear evolution of a relativistically strong electromagnetic wave in self-created electron-positron plasma. JETP Letters, 2004, 80, 734-738.	0.4	11
191	Two-dimensional Harrisâ€“Liouville plasma kinetic equilibria. Physics of Plasmas, 2005, 12, 052506.	0.7	11
192	Enabling pulse compression and proton acceleration in a modular ICF driver for nuclear and particle physics applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 558, 430-436.	0.7	11
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