Mattias Marklund

List of Publications by Year
in descending order

252 papers	8,649 citations	57758 44 h-index	54911 84 g-index
254 all docs	254 docs citations	254 times ranked	2589 citing authors

#	Article	IF	Citations
1	Nonlinear collective effects in photon-photon and photon-plasma interactions. Reviews of Modern Physics, 2006, 78, 591-640.	45.6	923
2	Dynamics of Spin-12Quantum Plasmas. Physical Review Letters, 2007, 98, 025001.	7.8	416
3	Spin magnetohydrodynamics. New Journal of Physics, 2007, 9, 277-277.	2.9	261
4	Rogue waves in the atmosphere. Journal of Plasma Physics, 2010, 76, 293-295.	2.1	256
5	Experimental Evidence of Radiation Reaction in the Collision of a High-Intensity Laser Pulse with a Laser-Wakefield Accelerated Electron Beam. Physical Review X, 2018, 8, .	8.9	234
6	Quantum Plasma Effects in the Classical Regime. Physical Review Letters, 2008, 100, 175001.	7.8	188
7	Extended particle-in-cell schemes for physics in ultrastrong laser fields: Review and developments. Physical Review E, 2015, 92, 023305.	2.1	181
8	Using High-Power Lasers for Detection of Elastic Photon-Photon Scattering. Physical Review Letters, 2006, 96, 083602.	7.8	155
9	Finite size effects in stimulated laser pair production. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 692, 250-256.	4.1	145
10	Instability and Evolution of Nonlinearly Interacting Water Waves. Physical Review Letters, 2006, 97, 094501.	7.8	144
11	New quantum limits in plasmonic devices. Europhysics Letters, 2008, 84, 17006.	2.0	138
12	Statistical effects in the multistream model for quantum plasmas. Physical Review E, 2002, 65, 046417.	2.1	135
13	Magnetosonic solitons in a fermionic quantum plasma. Physical Review E, 2007, 76, 067401.	2.1	132
14	Anomalous Radiative Trapping in Laser Fields of Extreme Intensity. Physical Review Letters, 2014, 113, 014801.	7.8	125
15	Effects of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>g</mml:mi></mml:math>Factor in Semiclassical Kinetic Plasma Theory. Physical Review Letters, 2008, 101, 245002.	7.8	121
16	Spin solitons in magnetized pair plasmas. Physics of Plasmas, 2007, 14, .	1.9	115
17	New low-frequency oscillations in quantum dusty plasmas. Europhysics Letters, 2006, 74, 844-846.	2.0	110
18	Ultrarelativistic nanoplasmonics as a route towards extreme-intensity attosecond pulses. Physical Review E, 2011, 84, 046403.	2.1	107

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19	Vacuum refractive indices and helicity flip in strong-field QED. Physical Review D, 2014, 89, .	4.7	104
20	Quantum vacuum experiments using high intensity lasers. European Physical Journal D, 2009, 55, 319-326.	1.3	99
21	Proposal for Detection of QED Vacuum Nonlinearities in Maxwellâ€™s Equations by the Use of Waveguides. Physical Review Letters, 2001, 87, 171801.	7.8	96
22	Classical and quantum kinetics of the Zakharov system. Physics of Plasmas, 2005, 12, 082110.	1.9	96
23	Scalar quantum kinetic theory for spin-1/2 particles: mean field theory. New Journal of Physics, 2010, 12, 043019.	2.9	96
24	Nonlinear wave interactions in quantum magnetoplasmas. Physics of Plasmas, 2006, 13, 112111.	1.9	88
25	Probing Nonperturbative QED with Optimally Focused Laser Pulses. Physical Review Letters, 2013, 111, 060404.	7.8	83
26	Quantum Radiation Reaction: From Interference to Incoherence. Physical Review Letters, 2016, 116, 044801.	7.8	82
27	Intensity-Dependent Electron Mass Shift in a Laser Field: Existence, Universality, and Detection. Physical Review Letters, 2012, 109, 100402.	7.8	80
28	Spin Contribution to the Ponderomotive Force in a Plasma. Physical Review Letters, 2010, 105, 105004.	7.8	78
29	Semi-relativistic effects in spin-1/2 quantum plasmas. New Journal of Physics, 2012, 14, 073042.	2.9	75
30	Nonlinear Bessel beams. Optics Communications, 2003, 222, 107-115.	2.1	72
31	Photon polarization in light-by-light scattering: Finite size effects. Physical Review D, 2014, 90, .	4.7	69
32	Ultrabright GeV Photon Source via Controlled Electromagnetic Cascades in Laser-Dipole Waves. Physical Review X, 2017, 7, .	8.9	65
33	Ferromagnetic behavior in magnetized plasmas. Physical Review E, 2007, 76, 055403.	2.1	61
34	Ultrashort solitons and kinetic effects in nonlinear metamaterials. Physical Review E, 2006, 73, 037601.	2.1	58
35	Radio Wave Emissions Due to Gravitational Radiation. Astrophysical Journal, 2000, 536, 875-879.	4.5	57
36	Quantum-Electrodynamical Photon Splitting in Magnetized Nonlinear Pair Plasmas. Physical Review Letters, 2007, 98, 125001.	7.8	57

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37	Quantum Quenching of Radiation Losses in Short Laser Pulses. Physical Review Letters, 2017, 118, 105004.	7.8	57
38	Circularly polarized modes in magnetized spin plasmas. Journal of Plasma Physics, 2010, 76, 857-864.	2.1	56
39	Modified Jeans instability criteria for magnetized systems. Physics of Plasmas, 2008, 15, .	1.9	55
40	Signatures of quantum effects on radiation reaction in laserâ€“electron-beam collisions. Journal of Plasma Physics, 2017, 83, .	2.1	55
41	Benchmarking semiclassical approaches to strong-field QED: Nonlinear Compton scattering in intense laser pulses. Physics of Plasmas, 2018, 25, .	1.9	53
42	Reaching supercritical field strengths with intense lasers. New Journal of Physics, 2019, 21, 053040.	2.9	48
43	Analysis of four-wave mixing of high-power lasers for the detection of elastic photon-photon scattering. Physical Review A, 2006, 74, .	2.5	46
44	Depletion of Intense Fields. Physical Review Letters, 2017, 118, 154803.	7.8	46
45	Scaling laws for positron production in laserâ€“electron-beam collisions. Physical Review A, 2017, 96, .	2.5	43
46	Short wavelength electromagnetic propagation in magnetized quantum plasmas. Physics of Plasmas, 2007, 14, 062112.	1.9	42
47	Parametric Excitation of Plasma Waves by Gravitational Radiation. Physical Review Letters, 1999, 82, 3012-3015.	7.8	41
48	Localized whistlers in magnetized spin quantum plasmas. Physical Review E, 2010, 82, 056406.	2.1	40
49	Symmetry breaking from radiation reaction in ultra-intense laser fields. Physical Review D, 2011, 84, .	4.7	40
50	Nonlinear dynamics of intense laser pulses in a pair plasma. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 324, 193-197.	2.1	39
51	Strong field effects in laser pulses: The Wigner formalism. Physical Review D, 2011, 83, .	4.7	39
52	Exchange effects in plasmas: The case of low-frequency dynamics. Physical Review E, 2013, 88, 063105.	2.1	38
53	Cosmological electromagnetic fields due to gravitational wave perturbations. Physical Review D, 2000, 62, .	4.7	37
54	Magnetic Richtmyer-Meshkov instability in a two-component Bose-Einstein condensate. Physical Review A, 2010, 82, .	2.5	37

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55	Ponderomotive force due to the intrinsic spin in extended fluid and kinetic models. Physical Review E, 2011, 83, 036410.	2.1	37
56	The Electromagnetic Signature of Black Hole Ringâ€Down. Astrophysical Journal, 2004, 613, 492-505.	4.5	36
57	Spin and magnetization effects in plasmas. Plasma Physics and Controlled Fusion, 2011, 53, 074013.	2.1	36
58	Electromagnetic Wave Collapse in a Radiation Background. Physical Review Letters, 2003, 91, 163601.	7.8	35
59	From extended phase space dynamics to fluid theory. Physics of Plasmas, 2010, 17, 102109.	1.9	35
60	Laser-Particle Collider for Multi-GeV Photon Production. Physical Review Letters, 2019, 122, 254801.	7.8	35
61	The Rayleighâ€“Taylor instability and internal waves in quantum plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 3042-3045.	2.1	34
62	Heating of the fuel mixture due to viscous stress ahead of accelerating flames in deflagration-to-detonation transition. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4850-4857.	2.1	34
63	The Wahlquist metric cannot describe an isolated rotating body. Classical and Quantum Gravity, 2000, 17, 351-359.	4.0	33
64	Laser wakefield acceleration using wire produced double density ramps. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	33
65	Charged multifluids in general relativity. Classical and Quantum Gravity, 2003, 20, 1823-1834.	4.0	32
66	Generation of wakefields by whistlers in spin quantum magnetoplasmas. Physics of Plasmas, 2010, 17, .	1.9	32
67	Modulational instability criteria for two-component Boseâ€“Einstein condensates. European Physical Journal B, 2005, 46, 381-384.	1.5	31
68	Fluid moment hierarchy equations derived from quantum kinetic theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 481-484.	2.1	31
69	Gravitational wave amplification of seed magnetic fields. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 561, 17-25.	4.1	30
70	New low-frequency nonlinear electromagnetic wave in a magnetized plasma. Plasma Physics and Controlled Fusion, 2005, 47, L25-L29.	2.1	30
71	Solitons and decoherence in left-handed metamaterials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 341, 231-234.	2.1	30
72	Fluid moment hierarchy equations derived from gauge invariant quantum kinetic theory. New Journal of Physics, 2010, 12, 073027.	2.9	30

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73	Prospects for studying vacuum polarisation using dipole and synchrotron radiation. Journal of Plasma Physics, 2016, 82, .	2.1	30
74	Suppression of nonlinear effects by phase alternation in strongly dispersion-managed optical transmission. Optics Letters, 2002, 27, 1073.	3.3	29
75	Quantum electrodynamical effects in dusty plasmas. Physics of Plasmas, 2005, 12, 072111.	1.9	29
76	Vacuum effects in a vibrating cavity: Time refraction, dynamical Casimir effect, and effective Unruh acceleration. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 5621-5624.	2.1	29
77	Interface dynamics of a two-component Bose-Einstein condensate driven by an external force. Physical Review A, 2011, 83, .	2.5	29
78	Nonlinear Breitâ€“Wheeler pair creation with bremsstrahlungÎ³rays. Plasma Physics and Controlled Fusion, 2018, 60, 054009.	2.1	29
79	Photon frequency conversion induced by gravitational radiation. Physical Review D, 2001, 63, .	4.7	28
80	The Rayleighâ€“Taylor instability in quantum magnetized plasma with para- and ferromagnetic properties. Physics of Plasmas, 2009, 16, 032106.	1.9	28
81	Parametric excitation of AlfvÃ©n waves by gravitational radiation. Physical Review E, 2000, 62, 8493-8500.	2.1	27
82	Nonlinear gravitational wave interactions with plasmas. Physical Review D, 2000, 62, .	4.7	27
83	Wake field generation and nonlinear evolution in a magnetized electron-positron-ion plasma. Physics of Plasmas, 2008, 15, 082305.	1.9	27
84	Chirped-Standing-Wave Acceleration of Ions with Intense Lasers. Physical Review Letters, 2016, 117, 104801.	7.8	27
85	Focusing effects in laser-electron Thomson scattering. Physical Review Accelerators and Beams, 2016, 19, .	1.6	26
86	Invariant construction of solutions to Einstein's field equations - LRS perfect fluids I. Classical and Quantum Gravity, 1997, 14, 1267-1284.	4.0	25
87	Cyclotron damping and Faraday rotation of gravitational waves. Physical Review D, 2001, 64, .	4.7	25
88	Speedup of Doping Fronts in Organic Semiconductors through Plasma Instability. Physical Review Letters, 2011, 107, 016103.	7.8	25
89	Radiation damping in pulsed Gaussian beams. Physical Review A, 2012, 85, .	2.5	25
90	Light bullets and optical collapse in vacuum. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 306, 206-210.	2.1	24

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91	The general relativistic magnetohydrodynamic dynamo equation. Monthly Notices of the Royal Astronomical Society, 2005, 358, 892-900.	4.4	24
92	Photon acceleration in vacuum. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 359, 700-704.	2.1	23
93	Probing the quantum vacuum. Nature Photonics, 2010, 4, 72-74.	31.4	23
94	Pair production: The view from the lightfront. Physical Review D, 2011, 84, .	4.7	23
95	Invariant construction of solutions to Einstein's field equations - LRS perfect fluids II. Classical and Quantum Gravity, 1999, 16, 1577-1597.	4.0	22
96	Wakefield generation in magnetized plasmas. Physical Review E, 2011, 84, 036409.	2.1	22
97	Hollow microspheres as targets for staged laser-driven proton acceleration. New Journal of Physics, 2011, 13, 013030.	2.9	22
98	Narrowing of the emission angle in high-intensity Compton scattering. Physical Review A, 2016, 93, .	2.5	22
99	Axistationary perfect fluids - a tetrad approach. Classical and Quantum Gravity, 1999, 16, 453-463.	4.0	21
100	Cosmic magnetic fields from velocity perturbations in the early universe. Classical and Quantum Gravity, 2004, 21, 2115-2125.	4.0	21
101	Growth rate and the cutoff wavelength of the Darrieus-Landau instability in laser ablation. Physical Review E, 2009, 80, 046403.	2.1	21
102	Dynamics of a dusty plasma with intrinsic magnetization. New Journal of Physics, 2009, 11, 073017.	2.9	21
103	Parametric resonance of capillary waves at the interface between two immiscible Bose-Einstein condensates. Physical Review A, 2012, 86, .	2.5	21
104	A spectrometer for ultrashort gamma-ray pulses with photon energies greater than 10 MeV. Review of Scientific Instruments, 2018, 89, 113303.	1.3	21
105	Relativistically intense XUV radiation from laser-illuminated near-critical plasmas. Physical Review A, 2018, 98, .	2.5	21
106	Possibility to measure elastic photon-photon scattering in vacuum. Physical Review A, 2004, 70, .	2.5	20
107	Evolution of rogue waves in interacting wave systems. Europhysics Letters, 2009, 86, 24001.	2.0	20
108	A phonon laser in ultra-cold matter. Europhysics Letters, 2010, 91, 33001.	2.0	20

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109	Turbulence in binary Bose-Einstein condensates generated by highly nonlinear Rayleigh-Taylor and Kelvin-Helmholtz instabilities. Physical Review A, 2014, 89, .	2.5	20
110	Manipulation of the spatial distribution of laser-accelerated proton beams by varying the laser intensity distribution. Physics of Plasmas, 2016, 23, .	1.9	20
111	Radiation-dominated particle and plasma dynamics. Physics of Plasmas, 2018, 25, .	1.9	20
112	Nonlinear effects associated with interactions of intense photons with a photon gas. Physics of Plasmas, 2004, 11, 3767-3777.	1.9	19
113	Ultrafast Spin Avalanches in Crystals of Nanomagnets in Terms of Magnetic Detonation. Physical Review Letters, 2011, 107, 207208.	7.8	19
114	Finding solutions to Einstein's equations in terms of invariant objects. Classical and Quantum Gravity, 1996, 13, 3021-3037.	4.0	18
115	Instability and dynamics of two nonlinearly coupled laser beams in a plasma. Physics of Plasmas, 2006, 13, 053104.	1.9	18
116	Dispersion relation for electromagnetic wave propagation in a strongly magnetized plasma. New Journal of Physics, 2006, 8, 16-16.	2.9	17
117	Superluminal tunneling of microwaves in smoothly varying transmission lines. Physical Review E, 2008, 78, 016601.	2.1	17
118	Pair annihilation in laser pulses: Optical versus x-ray free-electron laser regimes. Physical Review A, 2011, 84, .	2.5	17
119	Radiation beaming in the quantum regime. Physical Review A, 2020, 101, .	2.5	17
120	Partially locally rotationally symmetric perfect fluid cosmologies. Classical and Quantum Gravity, 2000, 17, 3135-3156.	4.0	16
121	Nonlinear model for magnetosonic shocklets in plasmas. Physics of Plasmas, 2004, 11, 2311-2313.	1.9	16
122	Thomson scattering in high-intensity chirped laser pulses. Physics of Plasmas, 2015, 22, .	1.9	16
123	Short wavelength quantum electrodynamical correction to cold plasma-wave propagation. Physics of Plasmas, 2006, 13, 102102.	1.9	15
124	Modulational instability of partially coherent signals in electrical transmission lines. Physical Review E, 2006, 73, 057601.	2.1	15
125	Large-amplitude electron oscillations in a plasma slab. Journal of Plasma Physics, 2006, 72, 429.	2.1	15
126	Excitation of multiple wakefields by short laser pulses in quantum plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 3165-3168.	2.1	15

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127	Nonlinear electromagnetic wave equations for superdense magnetized plasmas. Physics of Plasmas, 2009, 16, .	1.9	15
128	Pulsating regime of magnetic deflagration in crystals of molecular magnets. Physical Review B, 2011, 83, .	3.2	15
129	Multiple colliding laser pulses as a basis for studying high-field high-energy physics. Physical Review A, 2019, 100, .	2.5	15
130	Dust Acoustic Wave in a Strongly Magnetized Pair-Dust Plasma. Physica Scripta, 2004, , 36.	2.5	14
131	Circularly polarized waves in a plasma with vacuum polarization effects. Physics of Plasmas, 2007, 14, 064503.	1.9	14
132	Modulational instability of nonlinearly interacting incoherent sea states. JETP Letters, 2007, 84, 645-649.	1.4	14
133	The structure of weak shocks in quantum plasmas. Physics of Plasmas, 2008, 15, 032309.	1.9	14
134	Laboratory soft x-ray emission due to the Hawkingâ€“Unruh effect?. Classical and Quantum Gravity, 2008, 25, 145005.	4.0	14
135	Detecting radiation reaction at moderate laser intensities. Physical Review E, 2015, 91, 023207.	2.1	14
136	On the contribution of exchange interactions to the Vlasov equation. European Physical Journal D, 2015, 69, 1.	1.3	14
137	Quantum electrodynamical shocks and solitons in astrophysical plasmas. Europhysics Letters, 2005, 72, 950-954.	2.0	13
138	Anomalous reflection and excitation of surface waves in metamaterials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 367, 233-236.	2.1	13
139	The Darrieusâ€“Landau instability in fast deflagration and laser ablation. Physics of Plasmas, 2008, 15, 032702.	1.9	13
140	On the possibility of metamaterial properties in spin plasmas. New Journal of Physics, 2008, 10, 115031.	2.9	13
141	Exciting rogue waves. Physics Magazine, 0, 2, .	0.1	13
142	Spin-induced nonlinearities in the electron magnetohydrodynamic regime. New Journal of Physics, 2010, 12, 013006.	2.9	13
143	Magnetohydrodynamic instability in plasmas with intrinsic magnetization. Physics of Plasmas, 2010, 17, .	1.9	13
144	Publisher's Note: Extended particle-in-cell schemes for physics in ultrastrong laser fields: Review and developments [Phys. Rev. E92, 023305 (2015)]. Physical Review E, 2015, 92, .	2.1	13

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145	Effects of high energy photon emissions in laser generated ultra-relativistic plasmas: Real-time synchrotron simulations. Physics of Plasmas, 2015, 22, .	1.9	13
146	Fermatâ€™s principle and the variational analysis of an optical model for light propagation exhibiting a critical radius. American Journal of Physics, 2002, 70, 680-683.	0.7	12
147	Gravitational wave detection using electromagnetic modes in a resonance cavity. Classical and Quantum Gravity, 2003, 20, L45-L51.	4.0	12
148	Primordial magnetic seed field amplification by gravitational waves. Physical Review D, 2005, 72, .	4.7	12
149	Inhomogeneous magnetic seed fields and gravitational waves within the magnetohydrodynamic limit. Physical Review D, 2006, 73, .	4.7	12
150	Internal Structure of Planar Electrochemical Doping Fronts in Organic Semiconductors. Journal of Physical Chemistry C, 2011, 115, 21915-21926.	3.1	12
151	Stability of two-dimensional ion-acoustic wave packets in quantum plasmas. Physics of Plasmas, 2011, 18, 042102.	1.9	12
152	Prospects and limitations of wakefield acceleration in solids. Physics of Plasmas, 2018, 25, .	1.9	12
153	Orbital Angular Momentum Coupling in Elastic Photon-Photon Scattering. Physical Review Letters, 2019, 123, 113604.	7.8	12
154	Rotating perfect fluid sources of the NUT metric. Classical and Quantum Gravity, 1999, 16, 1667-1675.	4.0	11
155	Model of the electrochemical conversion of an undoped organic semiconductor film to a doped conductor film. Physical Review B, 2010, 81, .	3.2	11
156	Electron acceleration and emission in a field of a plane and converging dipole wave of relativistic amplitudes with the radiation reaction force taken into account. Quantum Electronics, 2013, 43, 291-299.	1.0	11
157	Nonlocal effects in high-energy charged-particle beams. Physical Review E, 2004, 69, 066501.	2.1	10
158	Spin Kinetic Theoryâ€"Quantum Kinetic Theory in Extended Phase Space. Transport Theory and Statistical Physics, 2010, 39, 502-523.	0.4	10
159	Quantum swapping of immiscible Bose-Einstein condensates as an alternative to the Rayleigh-Taylor instability. Physical Review A, 2012, 85, .	2.5	10
160	Self-compression and catastrophic collapse of photon bullets in vacuum. JETP Letters, 2004, 79, 208-212.	1.4	9
161	A new electromagnetic wave in a pair plasma. Journal of Plasma Physics, 2005, 71, 709.	2.1	9
162	Generation of gravitational radiation in dusty plasmas and supernovae. JETP Letters, 2005, 81, 135-139.	1.4	9

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163	Nonlinear propagation of broadband intense electromagnetic waves in an electron-positron plasma. Physics of Plasmas, 2006, 13, 083102.	1.9	9
164	Laser intensity effects in noncommutative QED. Physical Review D, 2010, 81, .	4.7	9
165	Gauge-free Hamiltonian structure of the spin Maxwellâ€“Vlasov equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2362-2365.	2.1	9
166	Anisotropic properties of spin avalanches in crystals of nanomagnets. Physical Review B, 2013, 87, .	3.2	9
167	Realising single-shot measurements of quantum radiation reaction in high-intensity lasers. New Journal of Physics, 2019, 21, 053030.	2.9	9
168	Model-independent inference of laser intensity. Physical Review Accelerators and Beams, 2020, 23, .	1.6	9
169	Cherenkov radiation in a photon gas. New Journal of Physics, 2005, 7, 70-70.	2.9	8
170	Nonlinear interactions between gravitational radiation and modified AlfvÃ©n modes in astrophysical dusty plasmas. Physical Review D, 2006, 74, .	4.7	8
171	Nonlinear propagation of partially coherent dispersive AlfvÃ©n waves. Physica Scripta, 2006, 74, 373-376.	2.5	8
172	Interaction between gravitational waves and plasma waves in the Vlasov description. Journal of Plasma Physics, 2010, 76, 345-353.	2.1	8
173	The influence of temporal coherence on the dynamical Casimir effect. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2665-2669.	2.1	8
174	Proton acceleration by circularly polarized traveling electromagnetic wave. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	8
175	Ultra-intense laser pulses in near-critical underdense plasmas â€“ radiation reaction andÂenergy partitioning. Journal of Plasma Physics, 2017, 83, .	2.1	8
176	Stationary rotating matter in general relativity. Journal of Mathematical Physics, 1997, 38, 5280-5292.	1.1	7
177	Nonlinear self-interaction of plane gravitational waves. Physical Review D, 2003, 67, .	4.7	7
178	The intense radiation gas. Europhysics Letters, 2005, 70, 327-333.	2.0	7
179	Modulational instability of spatially broadband nonlinear optical pulses in four-state atomic systems. Physical Review E, 2006, 74, 067603.	2.1	7
180	Particle-in-cell simulations of electron spin effects in plasmas. Journal of Plasma Physics, 2013, 79, 377-382.	2.1	7

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181	Multidimensional Instability and Dynamics of Spin Avalanches in Crystals of Nanomagnets. Physical Review Letters, 2014, 113, 217206.	7.8	7
182	Static perfect fluid cylinders. Journal of Mathematical Physics, 1998, 39, 3336-3346.	1.1	6
183	Graviton mediated photon-photon scattering in general relativity. Physical Review D, 2006, 74, .	4.7	6
184	Kinetic theory of electromagnetic ion waves in relativistic plasmas. Physics of Plasmas, 2006, 13, 094503.	1.9	6
185	Nonlinear dynamics of corrugated doping fronts in organic optoelectronic devices. Physical Review B, 2012, 85, .	3.2	6
186	Scalar Wigner theory for polarized light in nonlinear Kerr media. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1765.	2.1	6
187	Evolution of the magnetic field generated by the Kelvin-Helmholtz instability. Physics of Plasmas, 2014, 21, .	1.9	6
188	Reaching high flux in laser-driven ion acceleration. European Physical Journal D, 2017, 71, 1.	1.3	6
189	Vacuum compression of trapped electromagnetic waves. Optics Communications, 2004, 235, 373-376.	2.1	5
190	Optimized Computation of Tight Focusing of Short Pulses Using Mapping to Periodic Space. Applied Sciences (Switzerland), 2021, 11, 956.	2.5	5
191	Electron bunch evolution in laser-wakefield acceleration. Physical Review Accelerators and Beams, 2020, 23, .	1.6	5
192	Relativistic self-compression approaching the Schwinger limit. Journal of Plasma Physics, 2005, 71, 213-215.	2.1	4
193	Random phases in Bose-Einstein condensates with higher order nonlinearities. European Physical Journal B, 2005, 48, 71-73.	1.5	4
194	Photonâ€“graviton pair conversion. Classical and Quantum Gravity, 2006, 23, L7-L13.	4.0	4
195	Electrostatic pair creation and recombination in quantum plasmas. JETP Letters, 2006, 83, 313-317.	1.4	4
196	Statistical properties of the continuum Salerno model. Physical Review A, 2006, 74, .	2.5	4
197	Single-step propagators for calculation of time evolution in quantum systems with arbitrary interactions. Computer Physics Communications, 2016, 202, 211-215.	7.5	4
198	Radiation emission from braided electrons in interacting wakefields. Physics of Plasmas, 2017, 24, 093101.	1.9	4

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199	Influence of QED Vacuum Nonlinearities on Waveguide Modes. Physica Scripta, 2001, T98, 127.	2.5	4
200	Classifying Einstein's field equations with applications to cosmology and astrophysics. Classical and Quantum Gravity, 1995, 12, 2525-2548.	4.0	3
201	Interaction of Neutrinos and Gravitons with Plasmas in the Universe. Physica Scripta, 1999, T82, 130.	2.5	3
202	Modulational instabilities in neutrino-antineutrino interactions. Journal of Experimental and Theoretical Physics, 2004, 99, 9-18.	0.9	3
203	Modulational and filamentational instabilities of two electromagnetic pulses in a radiation background. New Journal of Physics, 2004, 6, 172-172.	2.9	3
204	Dynamics of Radiation due to Vacuum Nonlinearities. Physica Scripta, 2004, T107, 239.	2.5	3
205	Radiation transport in diffractive media. Journal of Physics A, 2005, 38, 4265-4273.	1.6	3
206	Kinetic theory for radiation interacting with sound waves in ultrarelativistic pair plasmas. Physics of Plasmas, 2006, 13, 104505.	1.9	3
207	Filamentational instability of partially coherent femtosecond optical pulses in air. Optics Letters, 2006, 31, 1884.	3.3	3
208	Dynamics of broadband dispersive AlfvÃ©n waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 353, 500-504.	2.1	3
209	Reply to â€œComment on â€˜Primordial magnetic seed field amplification by gravitational wavesâ€™ â€. Physical Review D, 2007, 75, .	4.7	3
210	Towards ML-Based Diagnostics of Laserâ€“Plasma Interactions. Sensors, 2021, 21, 6982.	3.8	3
211	Plane-fronted parallel waves in a warm two-component plasma. Classical and Quantum Gravity, 2001, 18, 5249-5255.	4.0	2
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