Sergey Popruzhenko

List of Publications by Year
in descending order

78 papers	2,996 citations	249298 26 h-index	182931 54 g-index
79 all docs	79 docs citations	79 times ranked	1306 citing authors

#	Article	IF	Citations
1	Attosecond time shifts in atomic strong field ionization by tailored laser pulses. European Physical Journal Plus, 2022, 137, .	1.2	0
2	Quantum effects on radiation friction driven magnetic field generation. European Physical Journal Plus, 2021, 136, 1.	1.2	6
3	On the Possibility to Observe Collective Tunneling in Ionization of Atoms by Intense Laser Fields. JETP Letters, 2021, 113, 317-321.	0.4	1
4	Specific features of radiation emitted upon tunnel ionisation of atoms in extremely intense laser fields. Quantum Electronics, 2021, 51, 801-806.	0.3	2
5	Frustrated ionization of atoms in the multiphoton regime. Laser Physics Letters, 2021, 18, 015301.	0.6	3
6	Atomic diagnostics of ultrahigh laser intensities. Journal of Physics: Conference Series, 2020, 1412, 152001.	0.3	0
7	Focal-shape effects on the efficiency of the tunnel-ionization probe for extreme laser intensities. Matter and Radiation at Extremes, 2020, 5, .	1.5	14
8	Can Extreme Electromagnetic Fields Accelerate the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math> Decay of Nuclei?. Physical Review Letters, 2020, 124, 212505.	2.9	24
9	Diagnostics of ultra-intense laser pulses using tunneling ionization. Laser Physics Letters, 2020, 17, 025301.	0.6	12
10	Efficiency of radiation friction losses in laser-driven â€˜hole boringâ€™ of dense targets. New Journal of Physics, 2019, 21, 033009.	1.2	12
11	Progress toward atomic diagnostics of ultrahigh laser intensities. Physical Review A, 2019, 99, .	1.0	35
12	Selected Problems of Relativistic Quantum Mechanics and Atomic Physics. Physics of Atomic Nuclei, 2019, 82, 1583-1596.	0.1	2
13	Quantum theory of strong-field frustrated tunneling. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 014002.	0.6	24
14	Boosting terahertz-radiation power with two-color circularly polarized midinfrared laser pulses. Physical Review A, 2018, 98, .	1.0	13
15	Treating branch cuts in quantum trajectory models for photoelectron holography. Physical Review A, 2018, 98, .	1.0	21
16	Coulomb phase in high harmonic generation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 144006.	0.6	17
17	Adiabatic-limit Coulomb factors for photoelectron and high-order-harmonic spectra. Physical Review A, 2017, 96, .	1.0	21
18	Electronâ€“positron pair production from vacuum in the field of high-intensity laser radiation. Journal of Experimental and Theoretical Physics, 2016, 122, 539-553.	0.2	7

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19	Laser-Driven Recollisions under the Coulomb Barrier. Physical Review Letters, 2016, 117, 243003.	2.9	40
20	Inverse Faraday effect driven by radiation friction. New Journal of Physics, 2016, 18, 072001.	1.2	45
21	Control of terahertz photoelectron currents generated by intense two-color laser radiation interacting with atoms. Physical Review A, 2015, 92, .	1.0	9
22	Current progress in developing the nonlinear ionization theory of atoms and ions. Physics-Uspekhi, 2015, 58, 3-32.	0.8	64
23	Keldysh theory of strong field ionization: history, applications, difficulties and perspectives. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 204001.	0.6	225
24	Invariant form of Coulomb corrections in the theory of nonlinear ionization of atoms by intense laser radiation. Journal of Experimental and Theoretical Physics, 2014, 118, 580-586.	0.2	22
25	Trajectory-Based Coulomb-Corrected Strong Field Approximation. Springer Series in Chemical Physics, 2013, , 1-16.	0.2	4
26	Interference structure of above-threshold ionization versus above-threshold detachment. New Journal of Physics, 2012, 14, 055019.	1.2	49
27	Interference Carpets in Above-Threshold Ionization: From the Coulomb-Free to the Coulomb-Dominated Regime. Physical Review Letters, 2012, 108, 223601.	2.9	94
28	Trajectory-Based Coulomb-Corrected Strong Field Approximation. Springer Proceedings in Physics, 2012, , 221-230.	0.1	0
29	Time-Resolved Holography with Photoelectrons. Science, 2011, 331, 61-64.	6.0	483
30	Laser-assisted decay of quasistationary states. New Journal of Physics, 2011, 13, 063007.	1.2	11
31	Ionization of atoms and ions by intense laser radiation. JETP Letters, 2011, 93, 238-249.	0.4	11
32	David Fisherovich Zaretsky (1926â€“2010). Laser Physics, 2011, 21, 637-638.	0.6	0
33	High-order harmonic generation by an intense infrared laser pulse in the presence of a weak UV pulse. Physical Review A, 2010, 81, .	1.0	13
34	Low-Energy Structures in Strong Field Ionization Revealed by Quantum Orbits. Physical Review Letters, 2010, 105, 253002.	2.9	237
35	Strong field ionization by ultrashort laser pulses: Application of the Keldysh theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 374, 386-390.	0.9	8
36	Capture into rydberg states and momentum distributions of ionized electrons. Laser Physics, 2009, 19, 1550-1558.	0.6	101

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37	Coulomb correction to the ionization rate of atoms in high-frequency intense laser fields. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 5167-5170.	0.9	1
38	Energy absorption and emission of harmonics by clusters subject to intense short laser pulses. Laser Physics Letters, 2008, 5, 631-646.	0.6	19
39	Strong Field Ionization Rate for Arbitrary Laser Frequencies. Physical Review Letters, 2008, 101, 193003.	2.9	138
40	Radiation of a nonrelativistic particle during its finite motion in a central field. Journal of Experimental and Theoretical Physics, 2008, 106, 650-660.	0.2	2
41	Strong field approximation for systems with Coulomb interaction. Journal of Modern Optics, 2008, 55, 2573-2589.	0.6	147
42	Coulomb-corrected quantum trajectories in strong-field ionization. Physical Review A, 2008, 77, .	1.0	120
43	Recollision-induced plasmon excitation in strong laser fields. Physical Review A, 2008, 78, .	1.0	30
44	Ellipticity effects and the contributions of long orbits in nonsequential double ionization of atoms. Physical Review A, 2008, 77, .	1.0	62
45	Harmonic emission from cluster nanoplasmas subject to intense short laser pulses. Physical Review A, 2008, 77, .	1.0	31
46	Collisionless absorption of intense laser radiation in nanoplasma. Quantum Electronics, 2007, 37, 565-574.	0.3	7
47	Two-dimensional streaking: complete characterization of an arbitrarily polarized few-cycle laser pulse using a stereodetector technique. Optics Letters, 2007, 32, 1372.	1.7	5
48	Harmonic generation from laser-irradiated clusters. Physical Review A, 2007, 76, .	1.0	49
49	Reconstruction of an arbitrarily polarized few-cycle laser pulse by two-dimensional streaking. Laser Physics Letters, 2007, 4, 726-733.	0.6	8
50	On the inclusion of the Coulomb interaction in the theory of multiphoton ionization. JETP Letters, 2007, 85, 223-226.	0.4	12
51	Third harmonic generation by small metal clusters in a dielectric medium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 4933-4943.	0.6	10
52	The above-threshold ionization spectrum in a strong linearly polarized laser field. Journal of Experimental and Theoretical Physics, 2005, 100, 22-30.	0.2	6
53	Summation of Divergent Series and Zeldovich's Regularization Method. Physics of Atomic Nuclei, 2005, 68, 677.	0.1	6
54	Collisionless heating of a nanoplasma in laser-irradiated clusters. Laser Physics Letters, 2005, 2, 452-458.	0.6	17

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55	Landau damping in thin films irradiated by a strong laser field. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 4817-4830.	0.6	25
56	Coulomb Asymmetry in Above-Threshold Ionization. Physical Review Letters, 2004, 93, 233002.	2.9	150
57	On the problem of negative ions photodetachment in intense circularly polarized laser field. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 316, 226-232.	0.9	12
58	Zeldovich's regularization method in the theory of quasistationary states. Physics of Atomic Nuclei, 2003, 66, 1964-1971.	0.1	4
59	Nonlinear excitation of the Mie resonance in a laser-irradiated cluster. Optics Express, 2003, 11, 2433.	1.7	26
60	Laser-induced nonlinear excitation of collective electron motion in a cluster. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 3817-3834.	0.6	67
61	A closer look at electron-electron correlation in laser-induced non-sequential double ionization. Journal of Modern Optics, 2003, 50, 423-440.	0.6	1
62	Quantum Orbits and Laser-Induced Nonsequential Double Ionization. Springer Series on Atomic, Optical, and Plasma Physics, 2003, , 185-204.	0.1	0
63	Delay-Dependent Amplification of a Probe Pulse via Stimulated Rayleigh Scattering. Physical Review Letters, 2002, 88, 213001.	2.9	0
64	Laser-Induced Recollision Phenomena: Interference Resonances at Channel Closings. Physical Review Letters, 2002, 89, 023001.	2.9	78
65	On the Zelâ€™dovich regularization method in the theory of quasistationary states. JETP Letters, 2002, 75, 249-252.	0.4	9
66	Nonsequential double ionization: a quasiclassical analysis of the Keldysh-type transition amplitude. Optics Express, 2001, 8, 395.	1.7	31
67	Energy and momentum spectra of photoelectrons under conditions of ionization by strong laser radiation (The case of elliptic polarization). Journal of Experimental and Theoretical Physics, 2001, 92, 777-788.	0.2	86
68	Photoelectron momentum distribution for double ionization in strong laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, L239-L246.	0.6	33
69	Electron-electron correlation in laser-induced nonsequential double ionization. Physical Review A, 2001, 64, .	1.0	67
70	Amplification of high-order harmonics in a short laser pulse by stimulated interaction. Physical Review A, 2001, 64, .	1.0	5
71	Electron Momentum Distributions for Double Ionization in the Strong Field Limit. , 2001, , 41-50.		1
72	About New Method of High Harmonic Amplification. , 2001, , 259-263.		0

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73	The gain of high harmonics in an atomic jet and in a hollow-core fiber. Optics Communications, 2000, 183, 289-297.	1.0	5
74	Tunneling limit in the theory of photoelectron rescattering by the parent ion. Journal of Experimental and Theoretical Physics, 2000, 90, 778-787.	0.2	20
75	Rescattering and quantum interference near the classical cut-offs. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, L531-L538.	0.6	31
76	Mechanism of rescattering of photoelectrons by the parent ion in the optical tunneling regime. JETP Letters, 1998, 68, 902-907.	0.4	5
77	Simple quantum theory of the high-energy above-threshold ionization spectrum in the tunneling regime. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 249, 477-482.	0.9	29
78	Relativistic deflection of photoelectron trajectories in elliptically polarized laser fields. Optics Express, 1998, 2, 271.	1.7	2