Sergei Pavlovich Roshchupkin

List of Publications by Year
in descending order

124	1,131	361413	477307
papers	citations	20 h-index	29 g-index

124	124	124	76
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantum electrodynamics resonances in a pulsed laser field. Laser Physics, 2012, 22, 1113-1144.	1.2	81
2	Nonresonant quantum electrodynamics processes in a pulsed laser field. Laser Physics, 2012, 22, 1513-1546.	1.2	50
3	Resonant scattering of a photon by an electron in the field of a circularly polarized electromagnetic wave. Laser Physics Letters, 2005, 2, 184-189.	1.4	45
4	Resonant spontaneous bremsstrahlung by an electron scattered by a nucleus in the field of a pulsed light wave. Physical Review A, 2010, 81, .	2.5	41
5	Nonresonant spontaneous bremsstrahlung by a relativistic electron scattered by a nucleus in the field of pulsed light wave. European Physical Journal D, 2009, 53, 113-122.	1.3	35
6	Nonresonant scattering of an electron by a muon in the field of plane electromagnetic wave. Laser Physics Letters, 2007, 4, 872-879.	1.4	34
7	The influence of a pulsed light field on the electron scattering by a nucleus. Laser Physics Letters, 2008, 5, 437-445.	1.4	33
8	Resonance of exchange amplitude of Compton effect in the circularly polarized laser field. European Physical Journal D, 2007, 41, 433-440.	1.3	32
9	The light amplification effect in the Coulomb scattering of nonrelativistic electrons in a two-mode laser field. Laser Physics Letters, 2006, 3, 362-368.	1.4	30
10	The light amplification effect in the Coulomb scattering of nonrelativistic electrons in the field of strong circularly polarized light wave. Laser Physics Letters, 2004, 1, 357-361.	1.4	29
11	Resonant scattering of an electron by a muon in the field of light wave. European Physical Journal D, 2008, 48, 451-458.	1.3	29
12	Spontaneous bremsstrahlung effect in the nonrelativistic electron scattering by a nucleus in the field of pulsed light wave. Laser Physics Letters, 2009, 6, 472-479.	1.4	27
13	Nonresonant scattering of relativistic electron by relativistic muon in the pulsed light field. Laser Physics Letters, 2009, 6, 242-251.	1.4	26
14	Interference effect in the photoproduction of electron-positron pairs on a nucleus in the field of two light waves. Physics of Atomic Nuclei, 2001, 64, 243-252.	0.4	25
15	The Coulomb-repulsion compensation between the ions of the beam in the presence of a strong pulsed laser field. Laser Physics Letters, 2005, 2, 407-411.	1.4	25
16	Resonant scattering of photon by electron in the presence of the pulsed laser field. Laser Physics, 2011, 21, 1675-1687.	1.2	24
17	Nonresonant scattering of nonrelativistic electron by nonrelativistic muon in the pulsed light field. Laser Physics Letters, 2009, 6, 616-623.	1.4	22
18	One-photon annihilation of an electron-positron pair in the field of pulsed circularly polarized light wave. Laser Physics, 2010, 20, 1679-1685.	1.2	22

#	Article	IF	Citations
19	Non-resonance electron scattering in the field of two plane light waves. Physica Scripta, 1994, 50, 339-342.	2.5	21
20	Interference suppression in the two-photon annihilation of an electronâ€“positron pair in the light wave field. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 965-973.	1.5	21
21	Resonant scattering of a photon by an electron in the moderately-strong-pulsed laser field. Physical Review A, 2013, 88, .	2.5	21
22	Amplification of light during the scattering of a relativistic electron by a nucleus in a moderately strong field of a circularly polarized light wave. Journal of Experimental and Theoretical Physics, 2005, 100, 884-894.	0.9	20
23	Interaction of the nonrelativistic electrons in the pulsed field of two laser waves. European Physical Journal D, 2007, 44, 401-405.	1.3	20
24	Amplification of circularly polarized electromagnetic wave in the coulomb centre scattering of nonrelativistic electron. Laser Physics Letters, 2008, 5, 619-623.	1.4	20
25	Resonant scattering of a lepton by a lepton in the pulsed light field. Laser Physics, 2010, 20, 2080-2091.	1.2	20
26	Resonant parametric interference effect in spontaneous bremsstrahlung of an electron in the field of a nucleus and two pulsed laser waves. Physical Review A, 2018, 97, .	2.5	19
27	The radiation amplification effect in the scattering of a quasi-classical electron by an ion in the weak electromagnetic field. Laser Physics Letters, 2008, 5, 75-83.	1.4	18
28	Resonant photoproduction of high-energy electron-positron pairs in the field of a nucleus and a weak electromagnetic wave. Physical Review A, 2019, 100, .	2.5	17
29	Nonresonant muon pair production in electron-positron annihilation in the field of light wave. Laser Physics, 2009, 19, 531-537.	1.2	16
30	Resonant high-energy bremsstrahlung of ultrarelativistic electrons in the field of a nucleus and a weak electromagnetic wave. Laser Physics Letters, 2020, 17, 045301.	1.4	15
31	The radiation amplification effect in the scattering of a quasi-classical electron by an ion in an electromagnetic field of medium intensity. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 085204.	1.5	14
32	Resonant electron-positron pair photoproduction on a nucleus in a pulsed light field. Journal of Experimental and Theoretical Physics, 2011, 113, 46-54.	0.9	13
33	Parametric interference effect in nonresonant spontaneous bremsstrahlung of an electron in the field of a nucleus and two pulsed laser waves. Physical Review A, 2016, 94, .	2.5	13
34	Amplification of electromagnetic field in the course of the nonrelativistic electron scattering by ion in the presence of the field of the medium-intensity elliptically polarized light wave. Laser Physics, 2009, 19, 1723-1728.	1.2	12
35	Nonresonant photocreation of electron-positron pair on a nucleus in the field of a pulsed light wave. Laser Physics, 2011, 21, 1613-1620.	1.2	12
36	Relativistic effects in the angular distribution of ejected electrons in tunneling ionization of atoms by strong electromagnetic fields. Journal of the Optical Society of America B: Optical Physics, 1992, 9, 1231.	2.1	11

#	Article	IF	Citations
37	Anomalous amplification of electromagnetic field in the course of the nonrelativistic electron scattering by ion in the moderate-strong light field. Laser Physics Letters, 2009, 6, 906-911.	1.4	11
38	Suppression of interference in e-e scattering by the field of a strong electromagnetic wave. Journal of Physics A, 1984, 17, 3143-3149.	1.6	10
39	The interference effect in electron scattering on a nucleus in the field of two pulsed laser waves of circular polarization. Laser Physics, 2013, 23, 125301.	1.2	10
40	Parametric interference effect in electron-nucleus scattering in the field of two pulsed laser waves. Physical Review A, 2014, 90, .	2.5	9
41	Resonance of the exchange amplitude of a photon by an electron scattering in a pulsed laser field. Physical Review A, 2015, 91, .	2.5	9
42	Parametric interference effect in nonresonant pair photoproduction on a nucleus in the field of two pulsed light waves. Physical Review A, 2017, 95, .	2.5	9
43	Resonant effects in the spontaneous bremsstrahlung process of ultrarelativistic electrons in the fields of a nucleus and a pulsed light wave. Laser Physics Letters, 2021, 18, 045301.	1.4	9
44	Resonant photoproduction of ultrarelativistic electron-positron pairs on a nucleus in moderate and strong monochromatic light fields. Physical Review D, 2021, 104, .	4.7	9
45	The hydrogen ions attraction effect in the pulsed field of two laser waves propagating in the opposite directions. Laser Physics Letters, 2008, 5, 691-695.	1.4	8
46	Resonant effect of the ultrarelativistic electronâ€“positron pair production by gamma quanta in the field of a nucleus and a pulsed light wave. Laser Physics, 2021, 31, 045301.	1.2	8
47	Fundamental physical features of resonant spontaneous bremsstrahlung radiation of ultrarelativistic electrons on nuclei in strong laser fields. New Journal of Physics, 2022, 24, 013020.	2.9	8
48	Nonresonant Compton scattering in an intense pulsed laser field. Laser Physics, 2013, 23, 055301.	1.2	7
49	Resonant Effects in a Photoproduction of Ultrarelativistic Electron-Positron Pairs on a Nucleus in the Field of the X-ray Pulsar. Universe, 2020, 6, 141.	2.5	7
50	Heavy nuclei confinement effect in a pulsed light field. Laser Physics, 2011, 21, 769-773.	1.2	6
51	Interaction of classical nonrelativistic identically charged particles in a strong pulsed light field. Laser Physics, 2012, 22, 1202-1219.	1.2	6
52	Parametric interference Compton effect in two pulsed laser waves. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 055401.	1.5	6
53	Resonant scattering of ultrarelativistic electrons in the strong field of a pulsed laser wave. Laser Physics, 2016, 26, 025302.	1.2	6
54	Resonant two-photon annihilation of an electron-positron pair in a pulsed electromagnetic wave. Physical Review A, 2016, 94, .	2.5	6

#	Article	IF	Citations
55	The Resonant Bremsstrahlung of Ultrarelativistic Electrons on a Nucleus with Radiation of Hard Gamma-Quanta in the Presence of a Pulsed Field of the X-ray Pulsar. Universe, 2020, 6, 143.	2.5	6
56	Resonant Effect for Breitâ€“Wheeler Process in the Field of an X-ray Pulsar. Universe, 2020, 6, 190.	2.5	6
57	Resonant annihilation and production of high-energy electron-positron pairs in an external electromagnetic field. Modern Physics Letters A, 2020, 35, 2040023.	1.2	6
58	Resonant production of electron-positron pairs by a hard gamma-ray on a nucleus in an external electromagnetic field. Modern Physics Letters A, 2020, 35, 2040025.	1.2	6
59	Resonant Breit-Wheeler process in an external electromagnetic field. Modern Physics Letters A, 2020, 35, 2040027.	1.2	5
60	Influence of an intense pulsed electromagnetic field on nonresonant scattering of a photon by an electron for the nonrelativistic energy. European Physical Journal D, 2013, 67, 1.	1.3	4
61	Interaction of identically charged particles in a pulsed field of two laser waves propagating in the one direction. Laser Physics, 2015, 25, 076001.	1.2	4
62	The anomalous interaction of electrons in strong pulsed light fields. Laser Physics Letters, 2016, 13, 116001.	1.4	4
63	Resonant Ultrarelativistic Electronâ€“Positron Pair Production by High-Energy Electrons in the Field of an X-ray Pulsar. Universe, 2020, 6, 132.	2.5	4
64	Radiation of High-Energy Gamma Quanta by Ultrarelativistic Electrons on Nuclei in Strong X-ray Fields. Universe, 2022, 8, 218.	2.5	4
65	Resonance effects with the photoproduction of electron-positron pairs in the field of a plane electromagnetic wave. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh) Tj ETQq1 1 0.784314 rgBT /Overlock		
66	The Resonant Effect of an Annihilation Channel in the Interaction of the Ultrarelativistic Electron and Positron in the Field of an X-ray Pulsar. Universe, 2020, 6, 137.	2.5	3
67	Resonant emission of hard gamma-quanta at scattering of ultrarelativistic electrons on a nucleus within the external light field. Modern Physics Letters A, 2020, 35, 2040024.	1.2	3
68	Resonant Interference Effect in Scattering of an Electron by an Electron in the Field of Two Pulsed Laser Waves. Universal Journal of Physics and Application, 2013, 7, 274-285.	0.2	3
69	Resonant Production of an Ultrarelativistic Electronâ€“Positron Pair at the Gamma Quantum Scattering by a Field of the X-ray Pulsar. Universe, 2020, 6, 164.	2.5	2
70	Resonant production of high-energy electron-positron pairs and gamma quanta in the quantum electrodynamics processes in strong laser fields. , 2021, , .		2
71	Resonant Effect of High-Energy Electronâ€“Positron Pairs Production in Collision of Ultrarelativistic Electrons with an X-ray Electromagnetic Wave. Universe, 2021, 7, 210.	2.5	2
72	The influence of space charge effect and stochastic effects on spatial resolution of nuclear microprobe. , 0, , .		1

#	Article	IF	Citations
73	Amplification of electromagnetic field in electron scattering by ions in a weak light field: general relativistic case. Laser Physics, 2013, 23, 106001.	1.2	1
74	Influence of strong pulsed laser fields at resonant and coherent quantum electrodynamics processes. , 2016, , .		1
75	Two-photon emission of an electron in the weak pulsed laser field for the resonant case. Laser Physics, 2017, 27, 026003.	1.2	1
76	Effective interaction of electrons in the field of two strong laser waves with phase shifts allowance. Laser and Particle Beams, 2018, 36, 55-59.	1.0	1
77	Resonant laser-assisted process of the electron-positron pairs annihilation and production. AIP Conference Proceedings, 2019, , .	0.4	1
78	Resonant laser-assisted process of the ultrarelativistic electron-positron pair creation by a gamma quantum in the nucleus field. AIP Conference Proceedings, 2019, , .	0.4	1
79	Pressure dependence of electrical conductivity in high magnetic fields. Journal of Applied Mechanics and Technical Physics, 1982, 22, 706-711.	0.5	0
80	Spontaneous bremsstrahlung with electron scattering in the field of a plane electromagnetic wave. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1983, 26, 334-338.	0.0	0
81	The light amplification effect in the process of an electron scattering on a nucleus in a strong laser field. , 0, , .		0
82	Influence of relativistic and quantum effects on the blur in projection lithography systems. , 0, , .		0
83	The light amplification effect in the scattering of electron by a nucleus in the electromagnetic field. , 0, , .		0
84	Resonant scattering of a photon by an electron in the field of elliptic polarized electromagnetic wave. , 0, , .		0
85	Non-resonance annihilation of electron-positron pair in the field of light wave. , 0, , .		0
86	The beam ions interaction in the presence of two strong pulsed laser fields. , 0, , .		0
87	Calculation of Resonant Cross-Section of Second Order Process in the Field of Plane Wave. , 2006, , .		0
88	Resonant Two-Photon Annihilation of an Electron-Positron Pair in the Light Wave Field. , 2006, , .		0
89	Resonant two-photon annihilation of an E[−]-E⁺ pair in the laser field. , 2008, , .		0
90	Nonresonant e⁺e[−] pair annihilation to μ⁺μ[−] pair in the field of light wave. , 2008, , .		0

#	Article	IF	Citations
91	One-photon annihilation of an electron-positron pair in the intense pulsed laser field. , 2008, , .		0
92	Nonresonant electron-muon scattering in the pulsed electromagnetic field. , 2008, , .		0
93	Nonresonance spontaneous bremsstrahlung of an electron scattered by a nucleus in a pulsed light field. , 2008, , .		0
94	Superradiation in the course of the electron scattering by Ions in a light field. , 2010, , .		0
95	Resonant scattering of a lepton by a lepton in the pulsed electromagnetic field. , 2010, , .		0
96	Resonance two-photon annihilation of an electron-positron pair in the light wave field. , 2010, , .		0
97	Resonance of direct amplitude of process of scattering of a photon by an electron in the pulsed laser field. , 2010, , .		0
98	The uranium nuclei attraction effect in the pulse field of two counter-propagating laser waves. , 2010, , .		0
99	Nonresonant scattering of a photon by an electron in the pulsed electromagnetic field. , 2010, , .		0
100	Resonant bremsstrahlung of an electron scattered by an Ion in a pulsed light field. , 2010, , .		0
101	Influence of the strong pulsed laser field at the resonant effects of quantum electrodynamics. , 2011, , .		0
102	Laser-modified Compton scattering in the middle-intensity pulsed field. , 2013, , .		0
103	Formation of an electron-positron pair by a photon in the field of two pulsed laser waves. , 2013, , .		0
104	The effective interaction force between positron and electron in a pulsed laser field. , 2013, , .		0
105	Resonance interference scattering of a lepton by a lepton in the bichromatic pulsed laser field. , 2013, , .		0
106	Influence of the moderate-strong pulsed laser field at the quantum electrodynamics processes. , 2013, , .		0
107	Interference e-μ scattering in two-mode pulse-wave laser field. , 2013, , .		0
108	Gain coefficient in the course of the electron scattering by ions in a weak electromagnetic field: General relativistic case. , 2013, , .		0

#	Article	IF	Citations
109	Nonrelativistic electron scattering on a nucleus in the field of a bichromatic laser pulse. , 2013, , .		0
110	One-photon emission of electron in the field two pulsed laser waves. , 2013, , .		0
111	Parametric interference electronâ€“muon scattering in the field of two pulse laser waves. Laser Physics, 2014, 24, 106006.	1.2	0
112	Amplification of an electromagnetic field at the scattering of the nonrelativistic electron by an ion in the external field of medium intensity for an arbitrary angle of the initial electron. Laser Physics, 2014, 24, 086004.	1.2	0
113	Nonresonant electron-nucleus spontaneous bremsstrahlung in the field of two pulsed laser waves. , 2016, , .		0
114	Resonant laser-modified electron-electron scattering by a strong bichromatic pulsed field. , 2016, , .		0
115	Resonant processes of quantum electrodynamics in a pulsed laser field. , 2017, , .		0
116	Resonant Parametric Interference Effect at Quantun Electrodinamics Processes in the Field of Two Pulsed Laser Waves. , 2018, , .		0
117	The appearances of the resonant spontaneous emission of ultrarelativistic electrons in the field of a nucleus and a laser. Journal of Physics: Conference Series, 2019, 1236, 012073.	0.4	0
118	Resonance of the Annihilation Channel of a Laser-Assisted Electron-Positron Scattering. , 2019, , .		0
119	Resonant Production of an Ultrarelativistic Electron-Positron Pair by a Gamma Quantum in the Field of a Nucleus and a Laser Wave. , 2019, , .		0
120	Resonant Spontaneous Bremsstrahlung of Ultrarelativistic Electrons in the Field of a Nucleus and a Laser Wave. , 2019, , .		0
121	Spontaneous bremsstrahlung of ultrarelativistic electrons within the resonant conditions in the field of a nucleus and external electromagnetic field. , 2019, , .		0
122	New aspects of resonant effects in laser-modified Quantum Electrodynamics processes : (Invited). , 2019, , .		0
123	Laser-assisted interaction between nonrelativistic electrons and positrons. Laser Physics Letters, 2020, 17, 016002.	1.4	0
124	Resonant Laser-Assisted Process of Ultrarelativistic Electrons Bremsstrahlung in the Field of a Nucleus. Plasma Physics Reports, 2020, 46, 252-258.	0.9	0