Igor M Sokolov

List of Publications by Year
in descending order

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109 papers	1,731 citations	270111 25 h-index	340414 39 g-index
109 all docs	109 docs citations	109 times ranked	709 citing authors

#	Article	IF	Citations
1	Light propagation in a random three-dimensional ensemble of point scatterers in a waveguide: Size-dependent switching between diffuse radiation transfer and Anderson localization of light. Physical Review A, 2022, 105, .	1.0	3
2	Radiation Trapping in a Three-Dimensional Disordered Atomic Ensemble inside a Waveguide. Bulletin of the Russian Academy of Sciences: Physics, 2022, 86, 661-664.	0.1	1
3	Superradiance as single scattering embedded in an effective medium. Physical Review A, 2021, 103, .	1.0	9
4	Coherent population trapping in optically thin ¹³³Cs atomic vapor in a finite-size cell. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 1613.	0.9	11
5	Effect of the Motion of Atoms and Collisions with the Antirelaxation Coating of the Walls of Gas Cells on the Shape and Shift of the Coherent Population Trapping Resonance. JETP Letters, 2021, 113, 763-768.	0.4	6
6	Subradiance in dilute atomic ensembles: Role of pairs and multiple scattering. Physical Review A, 2021, 104, .	1.0	8
7	Subradiance of Cold and Dilute Atomic Ensembles Excited by Resonant Pulsed Radiation. Journal of Experimental and Theoretical Physics, 2021, 132, 56-62.	0.2	5
8	Giant Cooperative Lamb Shift in a Waveguide. , 2021, , .		0
9	Influence of atomic motion on the collective effects in dense and cold atomic ensembles. Physical Review A, 2020, 101, .	1.0	5
10	Optical-depth scaling of light scattering from a dense and cold atomic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Rb</mml:mi><mml:mprescripts /><mml:none /><mml:mn>87</mml:mn></mml:mmultiscripts></mml:math> gas. Physical Review A, 2020, 101, .	1.0	4
11	Incomplete spontaneous decay in a waveguide caused by polarization selection. Physical Review A, 2020, 101, .	1.0	9
12	Transport of light through a dense ensemble of cold atoms in a static electric field. Physical Review A, 2019, 100, .	1.0	4
13	The Influence of Electric and Magnetic Fields on Angular Distribution of Intensity of Light Scattered from a Cold Atomic Ensemble. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	0.2	0
14	Features of the Angular Distribution of Light Scattered by a Cold Atomic Ensemble Placed in a Static Electric Field. Bulletin of the Russian Academy of Sciences: Physics, 2019, 83, 251-255.	0.1	3
15	Interatomic Dipoleâ€“Dipole Interaction in a Fabryâ€“Perot Cavity with Charged Mirrors. Bulletin of the Russian Academy of Sciences: Physics, 2019, 83, 242-246.	0.1	3
16	Search for Anderson localization of light by cold atoms in a static electric field. Physical Review B, 2019, 99, .	1.1	13
17	Peculiarities of the interaction-induced modifications of the decay of different Zeeman sublevels of an atom excited in isotropic environment. Laser Physics Letters, 2019, 16, 105206.	0.6	0
18	Intensity of Waves Inside a Strongly Disordered Medium. Physical Review Letters, 2019, 123, 233903.	2.9	8

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19	Many-body cooperative effects in an ensemble of pointlike impurity centers near a charged conductive surface. Physical Review A, 2019, 100, .	1.0	9
20	Comparison of three approaches to light scattering by dilute cold atomic ensembles. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 2030.	0.9	5
21	Comparison of the Wavelet and Gabor Transforms in the Spectral Analysis of Nonstationary Signals. Technical Physics, 2018, 63, 1711-1717.	0.2	14
22	Dynamics of Spectral Composition of Fluorescence of Cold Atoms in External Electric and Magnetic Fields. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2018, 125, 317-323.	0.2	3
23	Specific Features of Interatomic Dipoleâ€“Dipole Interaction near a Perfectly Conducting Charged Surface. Journal of Experimental and Theoretical Physics, 2018, 127, 455-462.	0.2	14
24	Influence of Electric and Magnetic Fields on Interference Effects upon Multiple Light Scattering in Cold Atomic Ensembles. Journal of Experimental and Theoretical Physics, 2018, 127, 264-273.	0.2	8
25	Electro-optical effects in dense and cold atomic gases. Physical Review A, 2018, 98, .	1.0	7
26	The features of collective level shift and line broadening in a fabry-perot microcavity and near the conducting surface. , 2018, , .		0
27	Ioffe-Regel criterion for Anderson localization in the model of resonant point scatterers. Physical Review B, 2018, 98, .	1.1	32
28	Cooperative properties of an atomic cluster in a charged Fabry-Perot microcavity. , 2018, , .		0
29	Dipoleâ€“dipole interaction between motionless point atoms located near a charged conductive plate. Laser Physics, 2018, 28, 085203.	0.6	14
30	Near-field excitation exchange between motionless point atoms located near the conductive surface. , 2018, , .		0
31	Mesoscopic coherence in light scattering from cold, optically dense and disordered atomic systems. Physics Reports, 2017, 671, 1-60.	10.3	35
32	Peculiarities of excitation trapping in dense polyatomic ensemble in a Fabry-Perot cavity. Journal of Physics: Conference Series, 2017, 826, 012023.	0.3	0
33	Angular distribution of single-photon superradiance in a dilute and cold atomic ensemble. Physical Review A, 2017, 96, .	1.0	36
34	Size dependence of single-photon superradiance of cold and dilute atomic ensembles. Laser Physics, 2017, 27, 115201.	0.6	4
35	Influence of an electrostatic field on the permittivity of dense and cold atomic ensembles. JETP Letters, 2017, 106, 341-345.	0.4	18
36	Influence of the hyperfine structure of the atomic states on the collective effects in the Rb2 quasi-molecule. Journal of Experimental and Theoretical Physics, 2017, 125, 551-563.	0.2	6

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37	Wavelet correlations of nonstationary signals. Technical Physics, 2017, 62, 837-845.	0.2	12
38	Effect of magnetic field on the character of fluorescence of dense and cold atomic ensembles excited by pulsed radiation. Journal of Experimental and Theoretical Physics, 2017, 125, 384-393.	0.2	7
39	On the criteria for strong and weak polarization responses of ordered objects and systems. EPJ Web of Conferences, 2017, 161, 01003.	0.1	2
40	Wavelet-analysis of the non-stationary signal of fluorescence of an ensemble of point scatterers. EPJ Web of Conferences, 2017, 161, 02007.	0.1	1
41	Analysis of the Spectral Composition of Fluorescence from Laser-Excited Cold Atomic Clouds. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2017, 123, 858-866.	0.2	4
42	Light localization in cold and dense atomic ensemble. Journal of Physics: Conference Series, 2017, 793, 012026.	0.3	0
43	Coherent specular reflection of resonant light from a dense ensemble of motionless point-like scatters in a slab geometry. International Journal of Modern Physics Conference Series, 2016, 41, 1660141.	0.7	2
44	The influence of the dipole-dipole interaction on the radiative properties of point-like impurity centers in Fabry-Perot microcavity. , 2016, , .		0
45	Observation of Single-Photon Superradiance and the Cooperative Lamb Shift in an Extended Sample of Cold Atoms. Physical Review Letters, 2016, 117, 073003.	2.9	140
46	Control of light trapping in a large atomic system by a static magnetic field. Physical Review A, 2016, 94, .	1.0	39
47	Light trapping in an ensemble of pointlike impurity centers in a Fabry-Perot cavity. Physical Review A, 2016, 94, .	1.0	32
48	Microscopic theory of dipoleâ€“dipole interaction in ensembles of impurity atoms in a Fabryâ€“Perot cavity. Journal of Experimental and Theoretical Physics, 2016, 123, 237-248.	0.2	22
49	Ramsey resonance of coherent population trapping in slow rubidium beam. International Journal of Modern Physics Conference Series, 2016, 41, 1660145.	0.7	0
50	Coherent population trapping ramsey resonance in slow rubidium beam. , 2016, , .		0
51	Optimization of laser radiation for CPT-based miniature frequency standard. , 2016, , .		2
52	Radiation Trapping in a Cold and Dense Atomic Ensemble in a Magnetic Field. Journal of Physics: Conference Series, 2016, 691, 012020.	0.3	0
53	Reflection of resonant light from a plane surface of an ensemble of motionless point scatters: Quantum microscopic approach. Physical Review A, 2015, 91, .	1.0	29
54	Detection of a coherent population trapping resonance in a beam of87Rb atoms by the Ramsey method. Quantum Electronics, 2015, 45, 947-952.	0.3	4

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55	Optical Manipulation of Light Scattering in Cold Atomic Rubidium. , 2015, , 39-59.		0
56	Magnetic-Field-Driven Localization of Light in a Cold-Atom Gas. Physical Review Letters, 2015, 114, 053902.	2.9	70
57	Light transmission of the dense and cold atomic ensembles. Laser Physics, 2015, 25, 065202.	0.6	4
58	Microscopic lensing by a dense, cold atomic sample. Optics Letters, 2015, 40, 1137.	1.7	36
59	Light scattering on theF= 1 â†'Fâ€² = 0 transition in a cold and high density⁸⁷Rb vapor. Journal of Modern Optics, 2014, 61, 77-84.	0.6	8
60	Microscopic approach to calculation of the spontatneous decay of an excited atom located near an atomic cluster. , 2014, , .		0
61	Spontaneous decay of an atom excited in a dense and disordered atomic ensemble: Quantum microscopic approach. Physical Review A, 2014, 90, .	1.0	45
62	Absence of Anderson Localization of Light in a Random Ensemble of Point Scatterers. Physical Review Letters, 2014, 112, 023905.	2.9	178
63	A scaling law for light scattering from dense and cold atomic ensembles. Journal of Modern Optics, 2013, 60, 50-56.	0.6	33
64	Spatial distribution of optically induced atomic excitation in a dense and cold atomic ensemble. Physical Review A, 2013, 87, .	1.0	33
65	Near-resonance light scattering from a high-density ultracold atomic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>87</mml:mn></mml:msup></mml:math>Rb gas. Physical Review A, 2013, 87, .	1.0	64
66	Quantum hologram of macroscopically entangled light via the mechanism of diffuse light storage. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 124012.	0.6	6
67	The influence of collective effects on the propagation of electromagnetic radiation in dense ultracold atomic ensembles. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2012, 112, 401-409.	0.2	13
68	Coherent backscattering under conditions of electromagnetically induced transparency. Journal of Modern Optics, 2011, 58, 1928-1935.	0.6	2
69	Optical control of diffuse light storage in an ultracold atomic gas. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1459.	0.9	8
70	Microscopic theory of scattering of weak electromagnetic radiation by a dense ensemble of ultracold atoms. Journal of Experimental and Theoretical Physics, 2011, 112, 246-260.	0.2	77
71	Dispersion of the dielectric permittivity of dense and cold atomic gases. Physical Review A, 2011, 84, .	1.0	50
72	Quantum memory for light via a stimulated off-resonant Raman process: Beyond the three-level<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î›</mml:mi></mml:mrow></mml:math>-scheme approximation. Physical Review A, 2010, 82, .	1.0	24

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73	Light trapping in high-density ultracold atomic gases for quantum memory applications. Journal of Modern Optics, 2010, 57, 1833-1840.	0.6	30
74	Optical pumping dynamics and near-resonance light scattering in an ultracold sample of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mtext>R</mml:mtext><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>87</mml:mn></mml:mrow></mml:mmultiscripts><mml:mtext>b</mml:mtext></mml:mrow></mml:math>ato Physical Review A, 2009, 79, .	1.0	11
75	Light scattering from a dense and ultracold atomic gas. Physical Review A, 2009, 79, .	1.0	47
76	Stimulated Raman process in a scattering medium applied to the quantum memory scheme. Physical Review A, 2008, 78, .	1.0	8
77	Electromagnetically induced optical anisotropy of an ultracold atomic medium. Physical Review A, 2008, 77, .	1.0	28
78	Light scattering under conditions of nonstationary electromagnetically induced transparency. Quantum Electronics, 2007, 37, 1130-1136.	0.3	2
79	Spectral dependence of diffuse light dynamics in ultracold atomic85Rb. Journal of Modern Optics, 2006, 53, 2495-2505.	0.6	0
80	Coherent backscattering under conditions of pulsed radiation trapping. Journal of Experimental and Theoretical Physics, 2006, 102, 724-736.	0.2	10
81	Coherent backscattering of light from ultracold and optically dense atomic ensembles. Laser Physics Letters, 2006, 3, 223-243.	0.6	38
82	Diffuse light scattering dynamics under conditions of electromagnetically induced transparency. Physical Review A, 2006, 74, .	1.0	28
83	Suppression of coherent population trapping upon spontaneous decay of an excited state. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2005, 98, 149-155.	0.2	0
84	Destructive Interference in Coherent Backscattering of Light by an Ensemble of Cold Atoms. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2005, 99, 362.	0.2	2
85	Correlation and dynamic effects in coherent backscattering of light by optically dense ensembles of cold atoms. Quantum Electronics, 2005, 35, 693-697.	0.3	1
86	Alignment dynamics of slow light diffusion in ultracold atomicRb85. Physical Review A, 2005, 72, .	1.0	17
87	Multimode entanglement of light and atomic ensembles via off-resonant coherent forward scattering. Physical Review A, 2005, 71, .	1.0	44
88	Strong-field coherent backscattering of light in ultracold atomic 85Rb. Journal of Modern Optics, 2005, 52, 2269-2278.	0.6	24
89	Spectral dependence of coherent backscattering of light in a narrow-resonance atomic system. Physical Review A, 2004, 69, .	1.0	25
90	Coherent backscattering of nonmonochromatic light by an ensemble of cold atoms. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2004, 96, 742-748.	0.2	3

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91	Antilocalization in coherent backscattering of light in a multi-resonance atomic system. Optics Communications, 2004, 243, 165-173.	1.0	30
92	Entangled states in spin subsystems of polyatomic ensembles. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.2	0
93	Measurement of correlated multiple light scattering in ultracold atomic85Rb. Physical Review A, 2003, 68, .	1.0	27
94	Coherent backscattering of light in atomic systems: Application to weak localization in an ensemble of cold alkali-metal atoms. Physical Review A, 2003, 67, .	1.0	47
95	Optical pumping method for squeezing and entanglement in the ground-state spin subsystems of macroscopic atomic ensembles. Physical Review A, 2003, 68, .	1.0	3
96	Polarization-sensitive coherent control of atomic collisions with nonclassical light. Physical Review A, 2002, 65, .	1.0	1
97	Cooperative Raman-type transitions in a system of two four-level atoms: Entanglement in the spin subsystem of two spatially separated atomic ensembles. Physical Review A, 2001, 63, .	1.0	4
98	Two-Photon Coherent Control of Atomic Collisions by Light with Entangled Polarization. Physical Review Letters, 2000, 84, 3823-3826.	2.9	5
99	Anomalous depolarization of the5p2P3/2â†'8p2Pjâ€²transitions in atomic87Rb. Physical Review A, 2000, 62, .	1.0	11
100	Semiclassical theory of two-photon polarization-dependent fractional optical collisions: Application to theMgâ^'He(3s21S0â†'3p1P1â†'5s1S0,4d1D2)optical collision. Physical Review A, 1999, 60, 2230-2254.	1.0	2
101	Polarization-sensitive correlation spectroscopy of an atomic medium polarized in angular momentum: I. General formalism. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1997, 9, 529-557.	1.0	6
102	Polarization-sensitive correlation spectroscopy of an atomic medium polarized in angular momentum: II. Application to the spin ground state. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1997, 9, 559-573.	1.0	6
103	Optical pumping in a L-system by parametric luminescence light. Journal of Experimental and Theoretical Physics, 1997, 85, 73-86.	0.2	0
104	<title>Correlation spectroscopy with squeezed light</title>. , 1996, , .		0
105	<title>Polarization-sensitive correlation spectroscopy of atomic medium</title>. , 1996, 2799, 302.		0
106	Investigations of the small birefringence of transparent objects by strong phase modulation of probing laser radiation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1995, 12, 1579.	0.8	8
107	Optical detection of magnetic resonance by classical and squeezed light. Journal of the European Optical Society Part B: Quantum Optics, 1992, 4, 55-70.	1.2	13
108	Limiting sensitivity of frequency discriminator based on microwave-optical double resonance detection by squeezed light. Journal of the European Optical Society Part B: Quantum Optics, 1992, 4, 355-378.	1.2	2

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109	Some features of relaxation and spatial distribution of atomic polarization momenta in stationary optical pumping. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 108, 29-31.	0.9	4