

# Mikhail Fedorov

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

132  
papers

2,049  
citations

26  
h-index

41  
g-index

141  
ext. papers

2,197  
ext. citations

2.2  
avg. IF

4.69  
L-index

#	Paper	IF	Citations
132	Schmidt-mode analysis of quadrature entanglement in superpositions of two-mode multiphoton states. <i>Physica Scripta</i> , <b>2020</b> , 95, 064001	2.6	2
131	Entanglement of multiphoton two-mode polarization Fock states and of their superpositions. <i>Laser Physics Letters</i> , <b>2020</b> , 17, 035209	1.5	3
130	Lorentz-invariant mass and entanglement of biphoton states. <i>Laser Physics Letters</i> , <b>2019</b> , 16, 065203	1.5	1
129	Entanglement of multiphoton states in polarization and quadrature variables. <i>Laser Physics</i> , <b>2019</b> , 29, 124006	1.2	2
128	Hong-Du-Mandel effect in terms of the temporal biphoton wave function with two arrival-time variables. <i>Laser Physics Letters</i> , <b>2018</b> , 15, 035206	1.5	4
127	High resource of azimuthal entanglement in terms of Cartesian variables of noncollinear biphotons. <i>Physical Review A</i> , <b>2018</b> , 97,	2.6	2
126	Temporal interference effects in noncollinear and frequency-nondegenerate spontaneous parametric down-conversion. <i>Physical Review A</i> , <b>2018</b> , 98,	2.6	2
125	Diverging light pulses in vacuum: Lorentz-invariant mass and mean propagation speed. <i>Laser Physics</i> , <b>2017</b> , 27, 036202	1.2	5
124	Diffraction as a reason for slowing down light pulses in vacuum. <i>Europhysics Letters</i> , <b>2017</b> , 117, 64001	1.6	3
123	Invariant Mass and Propagation Speed of Light Pulses in Vacuum. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 826, 012025	0.3	2
122	Luminescence in germania-silica fibers in a 1-2 <sup>th</sup> region. <i>Optics Letters</i> , <b>2017</b> , 42, 2874-2877	3	6
121	Biphoton and Triphoton States, Entanglement, and Schmidt Decompositions. <i>Springer Series in Chemical Physics</i> , <b>2017</b> , 85-93	0.3	
120	Azimuthal entanglement and multimode schmidt decompositions for noncollinear biphotons. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2016</b> , 80, 755-759	0.4	
119	Azimuthal entanglement and multichannel Schmidt-type decomposition of noncollinear biphotons. <i>Physical Review A</i> , <b>2016</b> , 93,	2.6	12
118	L. V. Keldysh's Ionization in the Field of a Strong Electromagnetic Wave and modern physics of atomic interaction with a strong laser field. <i>Journal of Experimental and Theoretical Physics</i> , <b>2016</b> , 122, 449-455	1	8
117	Schmidt decomposition for non-collinear biphoton angular wave functions. <i>Physica Scripta</i> , <b>2015</b> , 90, 074048	2.6	6
116	On a possible definition of the concept of mass density for a classical electromagnetic field in vacuum. <i>Laser Physics Letters</i> , <b>2015</b> , 12, 096201	1.5	2

115	Three-photon generation by means of third-order spontaneous parametric down-conversion in bulk crystals. <i>Laser Physics Letters</i> , <b>2015</b> , 12, 115404	1.5	14
114	Three-photon polarization ququarts: polarization, entanglement and Schmidt decompositions. <i>Laser Physics</i> , <b>2015</b> , 25, 035204	1.2	6
113	Features of three-photon polarization states: Entanglement and polarization. <i>International Journal of Quantum Information</i> , <b>2014</b> , 12, 1560009	0.8	2
112	Experimental observation of double-peak structure of coincidence spectra in ultrafast spontaneous parametric down-conversion. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	3
111	Biphoton ququarts as either pure or mixed states, features and reconstruction from coincidence measurements. <i>European Physical Journal D</i> , <b>2013</b> , 67, 1	1.3	2
110	The Schmidt modes of biphoton qutrits: Poincaré sphere representation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2013</b> , 46, 095502	1.3	10
109	Interference Stabilization Revisited. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2012</b> , 18, 42-53	3.8	23
108	State entanglement of biphoton qutrits and ququarts. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2012</b> , 76, 233-236	0.4	1
107	Isolated attosecond pulses from laser-driven synchrotron radiation. <i>Physical Review Letters</i> , <b>2012</b> , 109, 245005	7.4	47
106	Peak doubling in spontaneous parametric down-conversion coincidence spectra with a short-pulse pump*. <i>Physica Scripta</i> , <b>2012</b> , 85, 058105	2.6	1
105	Qutrits and ququarts in spontaneous parametric down-conversion, correlations and entanglement. <i>Journal of Experimental and Theoretical Physics</i> , <b>2012</b> , 115, 15-35	1	6
104	Entanglement of biphoton states: qutrits and ququarts. <i>New Journal of Physics</i> , <b>2011</b> , 13, 083004	2.9	21
103	Single biphoton ququarts as either pure or mixed states. <i>Physical Review A</i> , <b>2011</b> , 84,	2.6	7
102	The threshold conditions for an FELWI. <i>Physica Scripta</i> , <b>2010</b> , T140, 014058	2.6	2
101	Entanglement Degree Characterization of Spontaneous Parametric-Down Conversion Biphotons in Frequency Domain. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , <b>2010</b> , 46-55	0.2	1
100	Gaussian modelling and Schmidt modes of SPDC biphoton states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2009</b> , 42, 175503	1.3	40
99	Characterization of spectral entanglement of spontaneous parametric-down conversion biphotons in femtosecond pulsed regime. <i>Europhysics Letters</i> , <b>2009</b> , 87, 64003	1.6	35
98	Spectral Entanglement in Parametric Down-Conversion with Nondegenerate Frequencies. <i>Advanced Science Letters</i> , <b>2009</b> , 2, 511-516	0.1	7

97	Biphoton wave packets in parametric down-conversion: Spectral and temporal structure and degree of entanglement. <i>Physical Review A</i> , <b>2008</b> , 78,	2.6	69
96	Spontaneous parametric down-conversion: Anisotropical and anomalously strong narrowing of biphoton momentum correlation distributions. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	50
95	Resonant diffusive radiation in random multilayered systems. <i>Laser Physics</i> , <b>2007</b> , 17, 1080-1084	1.2	1
94	Spatial amplification of a laser wave and the transverse spread of electrons in an undulator with a noncollinear configuration. <i>Laser Physics</i> , <b>2007</b> , 17, 1213-1216	1.2	6
93	Anisotropically and high entanglement of biphoton states generated in spontaneous parametric down-conversion. <i>Physical Review Letters</i> , <b>2007</b> , 99, 063901	7.4	75
92	Coherent array of non-spreading atomic wave packets in absorptive optical potentials. <i>Laser Physics Letters</i> , <b>2006</b> , 3, 31-36	1.5	1
91	Modulation and correlation of the radial and angular motions of a Rydberg electron in a resonance microwave field. <i>Quantum Electronics</i> , <b>2006</b> , 36, 713-719	1.8	2
90	Short-pulse or strong-field breakup processes: a route to study entangled wave packets. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2006</b> , 39, S467-S483	1.3	58
89	Strong-field interference stabilization of Rydberg atoms and the pulse-propagation problem. <i>Laser Physics</i> , <b>2006</b> , 16, 948-956	1.2	2
88	Cross-phase-modulation-induced instability and efficient parametric frequency conversion of ultrashort light pulses. <i>Journal of Experimental and Theoretical Physics</i> , <b>2006</b> , 102, 707-711	1	1
87	Stabilization of Atoms in a Strong Laser Field. <i>Springer Series in Chemical Physics</i> , <b>2006</b> , 1-18	0.3	
86	Spontaneous emission of a photon: Wave-packet structures and atom-photon entanglement. <i>Physical Review A</i> , <b>2005</b> , 72,	2.6	54
85	Observation of nonspreading wave packets in an imaginary potential. <i>Physical Review Letters</i> , <b>2005</b> , 95, 110405	7.4	48
84	Formation of two-dimensional nonspreading atomic wave packets in the field of two standing light waves. <i>Quantum Electronics</i> , <b>2005</b> , 35, 675-678	1.8	
83	Einstein localization in entangled light scattering. <i>Journal of Modern Optics</i> , <b>2004</b> , 51, 1779-1786	1.1	2
82	Two-color interference stabilization of atoms. <i>Physical Review A</i> , <b>2004</b> , 69,	2.6	13
81	Calculations of photodissociation in intense laser fields: Validity of the adiabatic elimination of the continuum. <i>International Journal of Quantum Chemistry</i> , <b>2004</b> , 99, 452-459	2.1	6
80	Packet narrowing and quantum entanglement in photoionization and photodissociation. <i>Physical Review A</i> , <b>2004</b> , 69,	2.6	87

79	Dynamics of spontaneous radiation of atoms scattered by a resonance standing light wave. <i>Journal of Experimental and Theoretical Physics</i> , <b>2003</b> , 97, 522-538	1	7
78	Interference stabilization of molecules with respect to photodissociation by a strong laser field. <i>Journal of Modern Optics</i> , <b>2003</b> , 50, 513-527	1.1	4
77	The influence of the surface electron layer on the energy spectrum of photoelectrons. <i>Journal of Experimental and Theoretical Physics</i> , <b>2002</b> , 95, 705-709	1	1
76	Delay-dependent amplification of a probe pulse via stimulated Rayleigh scattering. <i>Physical Review Letters</i> , <b>2002</b> , 88, 213001	7.4	
75	Interference stabilization of molecules with respect to photodissociation by a strong laser field. <i>Physical Review A</i> , <b>2002</b> , 65,	2.6	5
74	Potential scattering of electron wave packets by large-size targets. <i>Physical Review A</i> , <b>2002</b> , 65,	2.6	5
73	Interference Stabilization: $\Lambda$ and V-Schemes, Dynamics of Ionization, Initial Coherent Population of Rydberg Levels and Quantum Phase Control of The Ionization Yield <b>2001</b> , 277-284		
72	Phase control of the degree of ionization of Rydberg atoms by a strong laser field. <i>Journal of Experimental and Theoretical Physics</i> , <b>2000</b> , 90, 794-804	1	10
71	Free-electron laser without inversion: gain optimization and implementation scheme. <i>Physical Review Letters</i> , <b>2000</b> , 85, 4510-3	7.4	12
70	Wavepacket theory of the Kapitza-Dirac effect. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2000</b> , 33, 4535-4550	1.3	11
69	Coherent control of strong-field two-pulse ionization of Rydberg atoms. <i>Optics Express</i> , <b>2000</b> , 6, 117-23	3.3	5
68	Interference stabilisation of Rydberg atoms in a strong laser field. <i>Quantum Electronics</i> , <b>1999</b> , 29, 578-590		2
67	Interference stabilization of Rydberg atoms: Quasiclassical analytical theory and exact three-dimensional numerical simulations. <i>Physical Review A</i> , <b>1999</b> , 60, R749-R752	2.6	17
66	Rotational quasienergy states and alignment of molecules in a strong laser field. <i>Journal of Experimental and Theoretical Physics</i> , <b>1999</b> , 89, 837-844	1	7
65	Classical and quantum versions of the Kapitza-Dirac effect. <i>Journal of Experimental and Theoretical Physics</i> , <b>1999</b> , 89, 460-467	1	9
64	Relativistic ponderomotive forces. <i>Journal of Experimental and Theoretical Physics</i> , <b>1999</b> , 89, 640-646	1	14
63	Stabilization of a Rydberg atom and competition between the $\Lambda$ and V transition channels. <i>Journal of Experimental and Theoretical Physics</i> , <b>1998</b> , 87, 445-453	1	2
62	Competition between L- and V-type transitions in interference stabilization of Rydberg atoms. <i>Optics Express</i> , <b>1998</b> , 2, 51-7	3.3	5

61	Non-stationary scattering of wave-packets. <i>Optics Express</i> , <b>1998</b> , 2, 404-10	3.3	3
60	Free-electron laser exploiting a superlattice-like medium. <i>Optics Express</i> , <b>1998</b> , 3, 162-70	3.3	5
59	Stabilization and Structure of wave packets in Rydberg atoms ionized by a strong light field. <i>Optics Express</i> , <b>1998</b> , 3, 271-9	3.3	6
58	Strong-field short-pulse photoionization of Rydberg atoms: Interference stabilization and distribution of the photoelectron density in space and time. <i>Physical Review A</i> , <b>1998</b> , 58, 1322-1334	2.6	17
57	Semiclassical dynamics of strongly driven systems. <i>Physical Review A</i> , <b>1998</b> , 58, R793-R796	2.6	11
56	Nonstationary theory of wave-packet potential scattering. <i>Physical Review A</i> , <b>1998</b> , 58, 1195-1203	2.6	4
55	Atomic and Free Electrons in a Strong Light Field <b>1998</b> ,		46
54	Ponderomotive forces and stimulated Compton scattering of free electrons in a laser field. <i>Physical Review E</i> , <b>1997</b> , 55, 1015-1027	2.4	22
53	Interference stabilization of Rydberg atoms: numerical calculations and physical models. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>1996</b> , 29, 2907-2924	1.3	27
52	Interference stabilization of Rydberg atoms induced by a strong laser field <b>1996</b> , 2796, 2		
51	Interference Stabilization <b>1996</b> , 11-21		1
50	Photoionization and Stabilization of Rydberg Atoms with High Values of Orbital Momentum <b>1996</b> , 45-53		
49	Comparison of quasiclassical and exact dipole moments for bound-free transitions in hydrogen. <i>Physical Review A</i> , <b>1995</b> , 52, 125-129	2.6	15
48	Strong-field photoionization and emission of light in the wave-packet-spreading regime. <i>Physical Review A</i> , <b>1995</b> , 52, 504-513	2.6	22
47	STRONG-FIELD REGIMES OF PHOTOIONIZATION. <i>Journal of Nonlinear Optical Physics and Materials</i> , <b>1995</b> , 04, 757-773	0.8	
46	Intensity-dependent phase-matching effects in harmonic generation. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1995</b> , 12, 863	1.7	45
45	Wave-front distortion of high-order harmonic beams caused by intensity-dependent emission phases. <i>Journal of X-Ray Science and Technology</i> , <b>1995</b> , 5, 312-22	2.1	
44	Quasiclassical atomic electron in a strong light field. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>1994</b> , 27, 4145-4167	1.3	12

43	Spectrum of light scattered by a strongly driven atom. <i>Physical Review A</i> , <b>1993</b> , 47, 1327-1335	2.6	34
42	Grobe and Fedorov reply. <i>Physical Review Letters</i> , <b>1993</b> , 70, 1562	7.4	6
41	Wavepacket spreading and electron localization in strong-field ionization. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>1993</b> , 26, 1181-1195	1.3	29
40	Strong-Field Interference Stabilization in Atoms and Molecules. <i>NATO ASI Series Series B: Physics</i> , <b>1993</b> , 245-259		1
39	Packet spreading, stabilization, and localization in superstrong fields. <i>Physical Review Letters</i> , <b>1992</b> , 68, 2592-2595	7.4	48
38	Packet Spreading, Stabilization, and Localization in Superstrong Fields. <i>Physical Review Letters</i> , <b>1992</b> , 69, 3591-3591	7.4	5
37	Spectrum of light scattered coherently or incoherently by a collection of atoms. <i>Physical Review A</i> , <b>1992</b> , 45, 4706-4712	2.6	42
36	Laser temporal and spatial effects on ionization suppression. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1992</b> , 9, 1234	1.7	4
35	Interaction of atoms with supershort laser pulses and the generation of the supercontinuum. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>1990</b> , 23, 2505-2520	1.3	10
34	On amplification of electromagnetic radiation in a free-electron beam passing through an atomic gas. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>1990</b> , 23, 4181-4184	1.3	1
33	Strong-field photoionisation of an initially excited hydrogen atom: Formation of Rydberg wavepacket, its structure and trapping of population at Rydberg levels. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>1990</b> , 23, 2245S-2257S	1.3	36
32	Coherence and interference in a Rydberg atom in a strong laser field: excitation, ionization, and emission of light. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1990</b> , 7, 569	1.7	39
31	New effects in the multiphoton ionization of atoms. <i>Uspekhi Fizicheskikh Nauk</i> , <b>1989</b> , 32, 500-520		33
30	Semiclassical matrix elements, essential-states models and perturbation theory of above-threshold ionisation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>1989</b> , 22, 1193-1205	1.3	25
29	Interference suppression of photoionization of Rydberg atoms in a strong electromagnetic field. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1989</b> , 6, 928	1.7	106
28	Photon echo formed by exciting pulses with smooth envelopes. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1989</b> , 6, 1314	1.7	0
27	Ac Stark effect and trapping of population on Rydberg levels in a strong ionizing field. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>1989</b> , 6, 1504	1.7	22
26	Strong field coheimce effects in the processes of photoionization from rydberg levels <b>1989</b> , 177-193		

25 Coherence and Interference in Photoionization of a Rydberg Atom **1989**, 287-293

- 24 Wave packets, probabilities of transitions, and multiphoton excitation of atoms. *Journal of the Optical Society of America B: Optical Physics*, **1988**, 5, 850 1.7 22
- 23 Free-electron laser based on the effect of channeling in an intense standing light wave. *Applied Physics Letters*, **1988**, 53, 353-354 3.4 32
- 22 Field-induced effects of narrowing of photoelectron spectra and stabilisation of Rydberg atoms. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **1988**, 21, L155-L158 1.3 148
- 21 Light amplification and electron acceleration by a noncollinear Compton process. *Journal of the Optical Society of America B: Optical Physics*, **1987**, 4, 1109 1.7 3
- 20 Inverse noncollinear Compton laser as a device for acceleration of electrons. *Applied Physics Letters*, **1986**, 49, 1668-1669 3.4 1
- 19 Near threshold photodetachment of electrons from negative ions and its dependence on the shape of the laser pulse envelope. *Journal of Physics B: Atomic and Molecular Physics*, **1984**, 17, 3469-3480 6
- 18 Suppression of interference in e-e scattering by the field of a strong electromagnetic wave. *Journal of Physics A*, **1984**, 17, 3143-3149 10
- 17 Laser-induced collective binding in two-electron systems. *Physical Review A*, **1984**, 30, 658-660 2.6 4
- 16 Photodetachment of an electron from a negative ion in the near-threshold region. I. Suddenly switching-on interaction. *Journal of Physics B: Atomic and Molecular Physics*, **1983**, 16, 3641-3652 21
- 15 Photodetachment of an electron from a negative ion in the near-threshold region. II. Pulses of radiation with smooth time envelopes. *Journal of Physics B: Atomic and Molecular Physics*, **1983**, 16, 3653-3666 20
- 14 Resonance interaction of autoionising states with an intense electromagnetic field. *Journal of Physics B: Atomic and Molecular Physics*, **1982**, 15, 2851-2858 28
- 13 e-e scattering in the presence of an external field. *Journal of Physics A*, **1981**, 14, 2305-2315 34
- 12 Interaction of electrons with the electromagnetic field in free electron lasers. *Uspekhi Fizicheskikh Nauk*, **1981**, 24, 801-814 7
- 11 Polarization of photoelectrons in the ionization of unpolarized atoms. *Uspekhi Fizicheskikh Nauk*, **1979**, 22, 252-269 2
- 10 Resonant interaction between intense electromagnetic waves during ionization of an atom. *Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika)*, **1978**, 21, 49-55 1
- 9 Influence of a strong electromagnetic wave on stimulated bremsstrahlung of electrons. *Soviet Journal of Quantum Electronics*, **1977**, 7, 1260-1266 15
- 8 Resonant ionisation of atoms and switching-on of the interaction. *Journal of Physics B: Atomic and Molecular Physics*, **1977**, 10, 2573-2582 20

- 7 Splitting of atomic levels in a strong magnetic field in the presence of an intense resonance wave. *Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika)*, **1976**, 19, 1624-1628
- 6 Stimulated bremsstrahlung in the presence of an intense electromagnetic wave. *Journal of Physics A*, **1976**, 9, L103-L106 15
- 5 Charge symmetry of wave functions for an electron in a quantized electromagnetic wave field. *Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika)*, **1975**, 18, 773-776
- 4 Comments on "Multiphoton processes in homopolar diatomic molecules," "Perturbation theory in closed form for heteronuclear diatomic molecules," and "Multiphoton processes in heteropolar diatomic molecules". *Physical Review A*, **1975**, 11, 1763-1764 2.6 3
- 3 An electron in a quantized plane wave and in a constant magnetic field. *Zeitschrift für Physik A*, **1973**, 261, 191-202 15
- 2 INTERACTION OF INTENSE OPTICAL RADIATION WITH FREE ELECTRONS (NONRELATIVISTIC CASE). *Uspekhi Fizicheskikh Nauk*, **1973**, 15, 416-435 83
- 1 Einstein localization in entangled light scattering 1