

# Alexandre Dodonov

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

945  
citations

393982

19  
h-index

476904

29  
g-index

61  
all docs

61  
docs citations

61  
times ranked

368  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamical Casimir effect via modulated Kerr or higher-order nonlinearities. <i>Physical Review A</i> , 2022, 105, .	1.0	3
2	Magnetic moment invariant Gaussian states of a charged particle in a homogeneous magnetic field. <i>European Physical Journal Plus</i> , 2022, 137, 1.	1.2	1
3	Giant diamagnetism of a quantum charged particle after inversion of the magnetic field. <i>Physical Review A</i> , 2022, 105, .	1.0	0
4	Magnetic-moment probability distribution of a quantum charged particle in thermodynamic equilibrium. <i>Physical Review A</i> , 2020, 102, .	1.0	5
5	Dynamical Casimir effect in cavities with two modes resonantly coupled through a qubit. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126837.	0.9	2
6	Novel scheme for anti-dynamical Casimir effect using nonperiodic ultrastrong modulation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126685.	0.9	2
7	Dynamical Casimir effect via four- and five-photon transitions using a strongly detuned atom. <i>Physical Review A</i> , 2019, 100, .	1.0	5
8	Emulation of $n$ -photon Jaynes-Cummings and anti-Jaynes-Cummings models via parametric modulation of a cyclic qutrit. <i>Physical Review A</i> , 2019, 99, .	1.0	9
9	Two-photon exchange interaction from the Dicke Hamiltonian under parametric modulation. <i>Physical Review A</i> , 2018, 97, .	1.0	0
10	One- and three-photon dynamical Casimir effects using a nonstationary cyclic qutrit. <i>Physical Review A</i> , 2018, 98, .	1.0	6
11	Quantum power boost in a nonstationary cavity-QED quantum heat engine. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 365302.	0.7	9
12	Speeding up the antidynamical Casimir effect with nonstationary qutrits. <i>Physical Review A</i> , 2017, 96, .	1.0	6
13	Analytical description of the mode hybridization in a restricted two-dimensional model for an electromagnetic cavity containing a thin magnetized slab. <i>Physical Review B</i> , 2017, 96, .	1.1	1
14	Antidynamical Casimir effect as a resource for work extraction. <i>Physical Review A</i> , 2017, 96, .	1.0	7
15	Analytical comparison of the first- and second-order resonances for implementation of the dynamical Casimir effect in nonstationary circuit QED. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 495304.	0.7	9
16	Effective Landau-Zener transitions in the circuit dynamical Casimir effect with time-varying modulation frequency. <i>Physical Review A</i> , 2016, 93, .	1.0	23
17	Excitation of the Classical Electromagnetic Field in a Cavity Containing a Thin Slab with a Time-Dependent Conductivity. <i>Journal of Russian Laser Research</i> , 2016, 37, 107-122.	0.3	4
18	Anti-dynamical Casimir effect with an ensemble of qubits. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 1542-1546.	0.9	11

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19	Microscopic toy model for the cavity dynamical Casimir effect. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 245302.	0.7	24
20	Energy–time and frequency–time uncertainty relations: exact inequalities. Physica Scripta, 2015, 90, 074049.	1.2	28
21	Prospects for observing dynamical and anti-dynamical Casimir effects in circuit QED due to fast modulation of qubit parameters. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 165503.	0.6	24
22	Transmission of Correlated Gaussian Packets Through a Delta-Potential. Journal of Russian Laser Research, 2014, 35, 39-46.	0.3	21
23	Tunneling of slow quantum packets through the high Coulomb barrier. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 1071-1073.	0.9	14
24	Analytical description of nonstationary circuit QED in the dressed-states basis. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 285303.	0.7	14
25	Continuous intracavity monitoring of the dynamical Casimir effect. Physica Scripta, 2013, 87, 038103.	1.2	10
26	Photon statistics in the dynamical Casimir effect modified by a harmonic oscillator detector. Physica Scripta, 2013, T153, 014017.	1.2	8
27	Mean excitation numbers due to the anti-rotating term in cavity QED under Lindbladian dephasing. Physica Scripta, 2012, 86, 025405.	1.2	7
28	Approximate analytical results on the cavity dynamical Casimir effect in the presence of a two-level atom. Physical Review A, 2012, 85, .	1.0	30
29	Dynamical Casimir effect in a cavity in the presence of a three-level atom. Physical Review A, 2012, 85, .	1.0	21
30	Dynamical Casimir effect in a cavity with an N-level detector or N two-level atoms. Physical Review A, 2012, 86, .	1.0	26
31	Dynamical Casimir effect in two-atom cavity QED. Physical Review A, 2012, 85, .	1.0	30
32	Dynamical Casimir effect in a cavity with a weakly non-equidistant spectrum. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1903-1906.	0.9	7
33	Strong modifications of the field statistics in the cavity dynamical Casimir effect due to the interaction with two-level atoms and detectors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 4261-4267.	0.9	25
34	Analytical and numerical analysis of the atom–field dynamics in non-stationary cavity QED. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 225502.	0.6	31
35	Asymptotic mean excitation numbers due to anti-rotating term (AMENDART) in Markovian circuit QED. Journal of Physics: Conference Series, 2011, 274, 012137.	0.3	4
36	Influence of laser-pulse shape and surface recombination on the photon generation rate in experiments on the dynamical casimir effect. Journal of Russian Laser Research, 2010, 31, 563-573.	0.3	0

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37	How "cold" can a Markovian dissipative cavity QED system be?. <i>Physica Scripta</i> , 2010, 82, 038102.	1.2	6
38	Errors in zero-excitation state preparation due to anti-rotating terms in two-atom Markovian cavity QED. <i>Physica Scripta</i> , 2010, 82, 055401.	1.2	1
39	Smooth quantum-classical transition in photon subtraction and addition processes. <i>Physical Review A</i> , 2009, 79, .	1.0	10
40	Comparison between different models for quantum jump superoperators in cavity QED experiments. <i>Journal of Russian Laser Research</i> , 2009, 30, 485-492.	0.3	0
41	Photon creation from vacuum and interactions engineering in nonstationary circuit QED. <i>Journal of Physics: Conference Series</i> , 2009, 161, 012029.	0.3	25
42	Rabi model beyond the rotating-wave approximation: Generation of photons from vacuum through decoherence. <i>Physical Review A</i> , 2008, 78, .	1.0	92
43	Quantum model for continuous photodetection. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
44	Theory of the dynamical Casimir effect in nonideal cavities with time-dependent parameters. <i>Journal of Physics: Conference Series</i> , 2008, 99, 012006.	0.3	10
45	Inclusion of nonidealities in the continuous photodetection model. <i>Physical Review A</i> , 2007, 75, .	1.0	8
46	Quantum master equations from classical Lagrangians with two stochastic forces. <i>Physical Review E</i> , 2007, 75, 011132.	0.8	7
47	Continuous photodetection model: quantum jumps engineering and hints for experimental verification. <i>Journal of Physics: Conference Series</i> , 2007, 84, 012005.	0.3	0
48	Resonance frequency shift in a cavity with a thin conducting film near a conducting wall. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 363, 33-37.	0.9	9
49	Generation of Photons from Vacuum in a Cavity with Time-Dependent Eigenfrequency and Dumping Coefficients. <i>Acta Physica Hungarica A Heavy Ion Physics</i> , 2006, 26, 29-36.	0.4	2
50	The Heisenberg-Langevin model of a quantum damped harmonic oscillator with time-dependent frequency and damping coefficients. <i>Journal of Russian Laser Research</i> , 2006, 27, 379-388.	0.3	6
51	QED effects in a cavity with a time-dependent thin semiconductor slab excited by laser pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, S749-S766.	0.6	33
52	The nonstationary Casimir effect in a cavity with periodical time-dependent conductivity of a semiconductor mirror. <i>Journal of Physics A</i> , 2006, 39, 6271-6281.	1.6	58
53	Engineering quantum jump superoperators for single-photon detectors. <i>Physical Review A</i> , 2006, 74, .	1.0	14
54	Quantum Harmonic Oscillator and Nonstationary Casimir Effect. <i>Journal of Russian Laser Research</i> , 2005, 26, 445-483.	0.3	55

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55	Quantum photodetection distributions with "nonlinear" quantum jump superoperators. Journal of Optics B: Quantum and Semiclassical Optics, 2005, 7, 99-108.	1.4	14
56	Resonance generation of photons from vacuum in cavities due to strong periodical changes of conductivity in a thin semiconductor boundary layer. Journal of Optics B: Quantum and Semiclassical Optics, 2005, 7, S47-S58.	1.4	23
57	Separability dynamics of two-mode Gaussian states in parametric conversion and amplification. Journal of Physics A, 2005, 38, 683-696.	1.6	48
58	Microscopic models of quantum-jump superoperators. Physical Review A, 2005, 72, .	1.0	13
59	Photon generation from vacuum in nondegenerate cavities with regular and random periodic displacements of boundaries. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 317, 378-388.	0.9	40
60	Entanglement of Resonantly Coupled Field Modes in Cavities with Vibrating Boundaries. Journal of Russian Laser Research, 2002, 23, 531-564.	0.3	9
61	Nonstationary Casimir effect in cavities with two resonantly coupled modes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 289, 291-300.	0.9	35