

Girish Agarwal

List of Publications by Year in descending order

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138
papers

6,847
citations

57719

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66879

78
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139
all docs

139
docs citations

139
times ranked

3899
citing authors

#	ARTICLE	IF	CITATIONS
1	2022 Roadmap on integrated quantum photonics. JPhys Photonics, 2022, 4, 012501.	2.2	152
2	Parametric-interaction-induced avoided dressed-state crossings in cavity QED: Generation of quantum coherence and equally weighted superposition of Fock states. Physical Review Research, 2022, 4, .	1.3	2
3	Anti-PT symmetry enhanced interconversion between microwave and optical fields. Physical Review B, 2022, 105, .	1.1	9
4	Quantifying quantum-amplified metrology via Fisher information. Physical Review Research, 2022, 4, .	1.3	8
5	Quantum Fisher information perspective on sensing in anti-PT symmetric systems. Physical Review Research, 2022, 4, .	1.3	4
6	Cavity-mediated level attraction and repulsion between magnons. Physical Review B, 2022, 105, .	1.1	7
7	Probing the spectrum of the Jaynes-Cummings-Rabi model by its isomorphism to an atom inside a parametric amplifier cavity. Physical Review A, 2021, 103, .	1.0	12
8	Room-Temperature Coupling of Single Photon Emitting Quantum Dots to Localized and Delocalized Modes in a Plasmonic Nanocavity Array. ACS Photonics, 2021, 8, 576-584.	3.2	12
9	Analysis of intensity correlation enhanced plasmonic structured illumination microscopy. Optics Letters, 2021, 46, 1554.	1.7	3
10	Metasurfaces for quantum photonics. Nature Photonics, 2021, 15, 327-336.	15.6	198
11	Quantum Advantage with Seeded Squeezed Light for Absorption Measurement. Physical Review Applied, 2021, 15, .	1.5	12
12	Enhanced Sensing of Weak Anharmonicities through Coherences in Dissipatively Coupled Anti-PT Symmetric Systems. Physical Review Letters, 2021, 126, 180401.	2.9	50
13	Ultralow threshold bistability and generation of long-lived mode in a dissipatively coupled nonlinear system: Application to magnonics. Physical Review B, 2021, 103, .	1.1	15
14	Experimental study of decoherence of the two-mode squeezed vacuum state via second harmonic generation. Physical Review Research, 2021, 3, .	1.3	4
15	Squeezing of spin-1 quantum states via a one-axis twisting Hamiltonian. Physical Review A, 2021, 104, .	1.0	1
16	Optical analog of valley Hall effect of 2D excitons in hyperbolic metamaterial. Optica, 2021, 8, 50.	4.8	12
17	Observation of photonic spin-momentum locking due to coupling of achiral metamaterials and quantum dots. Journal of Physics Condensed Matter, 2021, 33, 015701.	0.7	3
18	Long-Time Memory and Ternary Logic Gate Using a Multistable Cavity Magnonic System. Physical Review Letters, 2021, 127, 183202.	2.9	53

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19	Quantum Fisher information bounds on precision limits of circular dichroism. <i>Physical Review A</i> , 2021, 104, .	1.0	7
20	Simultaneous Excitation of Two Noninteracting Atoms with Time-Frequency Correlated Photon Pairs in a Superconducting Circuit. <i>Physical Review Letters</i> , 2020, 125, 133601.	2.9	15
21	Deterministic quantum entanglement between macroscopic ferrite samples. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	64
22	Nonlinear spin currents. <i>Physical Review B</i> , 2020, 102, .	1.1	18
23	Photon statistics of quantum light on scattering from rotating ground glass. <i>Physical Review A</i> , 2020, 101, .	1.0	10
24	Transparency in a chain of disparate quantum emitters strongly coupled to a waveguide. <i>Physical Review A</i> , 2020, 101, .	1.0	19
25	Squeezed light induced two-photon absorption fluorescence of fluorescein biomarkers. <i>Applied Physics Letters</i> , 2020, 116, 254001.	1.5	32
26	Squeezed Light Induced Symmetry Breaking Superradiant Phase Transition. <i>Physical Review Letters</i> , 2020, 124, 073602.	2.9	49
27	Quantum duality: A source point of view. <i>Physical Review Research</i> , 2020, 2, .	1.3	16
28	Transparency Effects Due To Single-photon Transport In Waveguide QED. , 2020, , .		0
29	Macroscopic Entanglement Between YIG Samples Without Using Intrinsic Nonlinearities. , 2020, , .		0
30	Quantum sensing of open systems: Estimation of damping constants and temperature. <i>Physical Review Research</i> , 2020, 2, .	1.3	12
31	Multiple Fano interferences due to waveguide-mediated phase coupling between atoms. <i>Physical Review A</i> , 2019, 100, .	1.0	27
32	Beyond sub-Rayleigh imaging via high order correlation of speckle illumination. <i>Journal of Optics (United Kingdom)</i> , 2019, 21, 115604.	1.0	6
33	Single-Shot Direct Tomography of the Complete Transverse Amplitude, Phase, and Polarization Structure of a Light Field. <i>Physical Review Applied</i> , 2019, 12, .	1.5	11
34	Quantum Fluctuations in the Fröhlich Condensate of Molecular Vibrations Driven Far From Equilibrium. <i>Physical Review Letters</i> , 2019, 122, 158101.	2.9	28
35	Squeezed states of magnons and phonons in cavity magnomechanics. <i>Physical Review A</i> , 2019, 99, .	1.0	146
36	Chiral emission of electric dipoles coupled to optical hyperbolic materials. <i>Physical Review B</i> , 2019, 100, .	1.1	7

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37	Interfering pathways for photon blockade in cavity QED with one and two qubits. Physical Review A, 2019, 100, .	1.0	35
38	Quantum entanglement between two magnon modes via Kerr nonlinearity driven far from equilibrium. Physical Review Research, 2019, 1, .	1.3	139
39	Cavity QED with Magnons: Entanglement and Squeezing at Macroscopic Scale. , 2019, , .		0
40	Phase control of the quantum statistics of collective emission. Physical Review A, 2018, 97, .	1.0	20
41	Light, the universe and everything – 12 Herculean tasks for quantum cowboys and black diamond skiers. Journal of Modern Optics, 2018, 65, 1261-1308.	0.6	6
42	Reply to ‘Comment on ‘Protecting bipartite entanglement by quantum interferences’’. Physical Review A, 2018, 97, .	1.0	1
43	Magnon-Photon-Phonon Entanglement in Cavity Magnomechanics. Physical Review Letters, 2018, 121, 203601.	2.9	339
44	Dynamic near-field heat transfer between macroscopic bodies for nanometric gaps. Nanophotonics, 2018, 7, 1581-1588.	2.9	6
45	Generation and detection of non-Gaussian phonon-added coherent states in optomechanical systems. Physical Review A, 2018, 98, .	1.0	30
46	Long-Range Resonant Energy Transfer Using Optical Topological Transitions in Metamaterials. ACS Photonics, 2018, 5, 2737-2741.	3.2	38
47	Enhancement of electromagnetically induced transparency in metamaterials using long range coupling mediated by a hyperbolic material. Optics Express, 2018, 26, 627.	1.7	66
48	Photon statistics as an interference phenomenon. Optics Letters, 2018, 43, 2304.	1.7	3
49	Analysis of super-resolution via 3D structured illumination intensity correlation microscopy. Optics Express, 2018, 26, 27492.	1.7	12
50	Robust force sensing for a free particle in a dissipative optomechanical system with a parametric amplifier. Physical Review A, 2017, 95, .	1.0	55
51	Anisotropy-Induced Quantum Interference and Population Trapping between Orthogonal Quantum Dot Exciton States in Semiconductor Cavity Systems. Physical Review Letters, 2017, 118, 063601.	2.9	47
52	The New Phases due to Symmetry Protected Piecewise Berry Phases; Enhanced Pumping and Non-reciprocity in Trimer Lattices. Scientific Reports, 2017, 7, 45015.	1.6	20
53	Hyperradiance accompanied by nonclassicality. Physical Review A, 2017, 96, .	1.0	15
54	Qubit entanglement across μ -near-zero media. Physical Review A, 2017, 96, .	1.0	20

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55	Quantum statistics of a single-atom Scovil–Schulz-DuBois heat engine. <i>Physical Review A</i> , 2017, 96, .	1.0	26
56	Interference control of perfect photon absorption in cavity quantum electrodynamics. <i>Physical Review A</i> , 2017, 95, .	1.0	27
57	Collective multiphoton blockade in cavity quantum electrodynamics. <i>Physical Review A</i> , 2017, 95, .	1.0	53
58	Waveguide transport mediated by strong coupling with atoms. <i>Physical Review A</i> , 2017, 95, .	1.0	70
59	Superresolution via structured illumination quantum correlation microscopy. <i>Optica</i> , 2017, 4, 580.	4.8	63
60	Hyperradiance from collective behavior of coherently driven atoms. <i>Optica</i> , 2017, 4, 779.	4.8	34
61	Observation of giant Goos-Hänchen and angular shifts at designed metasurfaces. <i>Scientific Reports</i> , 2016, 6, 19319.	1.6	53
62	Controlling the dark quadrupole modes in Dolmen structures. , 2016, , .		1
63	Coherent population oscillation produced by saturating probe and pump fields on the intercombination line. <i>Physical Review A</i> , 2016, 93, .	1.0	4
64	Strong mechanical squeezing and its detection. <i>Physical Review A</i> , 2016, 93, .	1.0	119
65	Perfect photon absorption in the nonlinear regime of cavity quantum electrodynamics. <i>Physical Review A</i> , 2016, 93, .	1.0	30
66	Operational definition of quantum correlations of light. <i>Physical Review A</i> , 2016, 94, .	1.0	7
67	Long-range dipole-dipole interaction and anomalous Förster energy transfer across a hyperbolic metamaterial. <i>Physical Review B</i> , 2016, 93, .	1.1	50
68	Photon trapping in cavity quantum electrodynamics. <i>Physical Review A</i> , 2015, 92, .	1.0	26
69	Simulating superradiance from higher-order-intensity-correlation measurements: Single atoms. <i>Physical Review A</i> , 2015, 92, .	1.0	25
70	Generalized fluctuation theorems for classical systems. <i>Physical Review E</i> , 2015, 92, 052139.	0.8	0
71	Superbunching and Nonclassicality as new Hallmarks of Superradiance. <i>Scientific Reports</i> , 2015, 5, 17335.	1.6	50
72	Electromagnetically induced absorption in a three-resonator metasurface system. <i>Scientific Reports</i> , 2015, 5, 10737.	1.6	78

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73	Entanglement of polarization and orbital angular momentum. Physical Review A, 2015, 91, .	1.0	55
74	Time-Reversal-Symmetric Single-Photon Wave Packets for Free-Space Quantum Communication. Physical Review Letters, 2015, 114, 173601.	2.9	9
75	Observation of electromagnetically induced absorption in a three-resonator system. , 2014, , .		1
76	Directional Superradiant Emission from Statistically Independent Incoherent Nonclassical and Classical Sources. Physical Review Letters, 2014, 113, 263606.	2.9	54
77	Coherent perfect absorption of path entangled single photons. Optics Express, 2014, 22, 20936.	1.7	29
78	Superradiance and collective gain in multimode optomechanics. Physical Review A, 2014, 90, .	1.0	30
79	Creation and manipulation of bound states in the continuum with lasers: Applications to cold atoms and molecules. Physical Review A, 2014, 90, .	1.0	12
80	Optomechanical Ramsey interferometry. Physical Review A, 2014, 90, .	1.0	13
81	Einstein-Podolsky-Rosen steering using quantum correlations in non-Gaussian entangled states. Physical Review A, 2014, 89, .	1.0	38
82	Robust stationary mechanical squeezing in a kicked quadratic optomechanical system. Physical Review A, 2014, 89, .	1.0	101
83	Regularization of the spectral singularity in PT-symmetric systems by all-order nonlinearities: Nonreciprocity and optical isolation. Physical Review A, 2014, 89, .	1.0	45
84	Large enhancement of Förster resonance energy transfer on graphene platforms. Applied Physics Letters, 2013, 103, .	1.5	32
85	Nonlocal continuous-variable correlations and violation of Bell's inequality for light beams with topological singularities. Physical Review A, 2013, 88, .	1.0	24
86	Quantum dynamical framework for Brownian heat engines. Physical Review E, 2013, 88, 012130.	0.8	30
87	Sub-Binomial Light. Physical Review Letters, 2012, 109, 093601.	2.9	62
88	True photocounting statistics of multiple on-off detectors. Physical Review A, 2012, 85, .	1.0	104
89	Quantum-interference-initiated superradiant and subradiant emission from entangled atoms. Physical Review A, 2011, 84, .	1.0	68
90	Storing entanglement of nuclear spins via Uhrig dynamical decoupling. Physical Review A, 2011, 83, .	1.0	22

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91	Partial angular coherence and the angular Schmidt spectrum of entangled two-photon fields. Physical Review A, 2011, 84, .	1.0	28
92	Quantum interference and non-locality of independent photons from disparate sources. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 055501.	0.6	8
93	Supersensitive measurement of angular displacements using entangled photons. Physical Review A, 2011, 83, .	1.0	64
94	Nonlocality from $N > 2$ independent single-photon emitters. Physical Review A, 2010, 82, .	1.0	0
95	Anderson localization with second quantized fields in a coupled array of waveguides. Physical Review A, 2010, 82, .	1.0	43
96	Protecting bipartite entanglement by quantum interferences. Physical Review A, 2010, 81, .	1.0	35
97	Measuring arbitrary-order coherences: Tomography of single-mode multiphoton polarization-entangled states. Physical Review A, 2010, 81, .	1.0	24
98	Coherent-light-boosted, sub-shot noise, quantum interferometry. New Journal of Physics, 2010, 12, 083014.	1.2	127
99	Amplification of maximally-path-entangled number states. Physical Review A, 2010, 81, .	1.0	13
100	Tunable entanglement, antibunching, and saturation effects in dipole blockade. Physical Review A, 2010, 81, .	1.0	26
101	Enhancement of cavity cooling of a micromechanical mirror using parametric interactions. Physical Review A, 2009, 79, .	1.0	130
102	Sub-Rayleigh quantum imaging using single-photon sources. Physical Review A, 2009, 80, .	1.0	12
103	Normal-mode splitting in a coupled system of a nanomechanical oscillator and a parametric amplifier cavity. Physical Review A, 2009, 80, .	1.0	127
104	Quantum interferometry using coherent beam stimulated parametric down-conversion. Optics Express, 2008, 16, 6479.	1.7	18
105	Multipartite entanglement criterion from uncertainty relations. Physical Review A, 2008, 78, .	1.0	17
106	Quantum imaging with incoherent photons. , 2007, , .		0
107	Measurement of ground-state decoherence via interruption of coherent population trapping. Physical Review A, 2007, 75, .	1.0	11
108	Multipartite entanglement in non-equilibrium quantum phase transition in a collective atomic system. , 2007, , .		0

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109	Quantum Imaging with Incoherent Photons. , 2007, , .		0
110	Creation of dicke states in distant qubits using linear optics. , 2007, , .		0
111	Nonclassicality and decoherence of photon-subtracted squeezed states. Physical Review A, 2007, 75, .	1.0	157
112	QUANTUM TELEPORTATION WITH PAIR-COHERENT STATES. International Journal of Quantum Information, 2007, 05, 17-22.	0.6	30
113	Measurement-induced spatial modulation of spontaneous decay and photon arrival times. Physical Review A, 2006, 74, .	1.0	9
114	Rotational frequency shifts for electromagnetic fields of arbitrary states of coherence and polarization. Optics Letters, 2006, 31, 3080.	1.7	1
115	Interferences in Parametric Interactions Driven by Quantized Fields. Physical Review Letters, 2006, 97, 023601.	2.9	24
116	Generation of Werner states via collective decay of coherently driven atoms. Physical Review A, 2006, 73, .	1.0	18
117	Towards the Heisenberg limit in magnetometry with parametric down-converted photons. Physical Review A, 2006, 74, .	1.0	3
118	Multiparticle entanglement and the Schrödinger cat state using ground-state coherences. Journal of Modern Optics, 2005, 52, 1397-1404.	0.6	8
119	Vacuum-induced Stark shifts for quantum logic using a collective system in a high-quality dispersive cavity. Physical Review A, 2005, 71, .	1.0	25
120	Cavity-mediated long-range interaction for fast multiqubit quantum logic operations. Physical Review A, 2005, 72, .	1.0	9
121	Quantum correlations between a pair of Raman photons from a single atom under arbitrary excitation condition. Physical Review A, 2005, 72, .	1.0	15
122	Causality in propagation of a pulse in a nonlinear dispersive medium. Journal of Modern Optics, 2005, 52, 1449-1456.	0.6	5
123	Controlled-not Gates for Four-Level Atoms in a Bimodal Cavity. European Physical Journal A, 2005, 23, 19-24.	0.2	0
124	Inducing Disallowed Two-Atom Transitions with Temporally Entangled Photons. Physical Review Letters, 2004, 93, 093002.	2.9	55
125	Reciprocity relations for reflected amplitudes. Optics Letters, 2002, 27, 1205.	1.7	47
126	Anisotropic Vacuum-Induced Interference in Decay Channels. Physical Review Letters, 2000, 84, 5500-5503.	2.9	192

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127	Atomic Schrödinger cat states. Physical Review A, 1997, 56, 2249-2254.	1.0	189
128	Realization of trapping in a two-level system with frequency-modulated fields. Physical Review A, 1994, 50, R4465-R4467.	1.0	83
129	Production of Schrödinger macroscopic quantum-superposition states in a Kerr medium. Physical Review A, 1993, 47, 5024-5029.	1.0	118
130	Nonclassical character of states exhibiting no squeezing or sub-Poissonian statistics. Physical Review A, 1992, 46, 485-488.	1.0	242
131	Generation of odd subharmonic Raman resonances from Stokes-anti-Stokes coupling. Physical Review A, 1991, 43, 1523-1527.	1.0	4
132	Cooperative behavior of atoms irradiated by broadband squeezed light. Physical Review A, 1990, 41, 3782-3791.	1.0	175
133	Vacuum-Field Rabi Splittings in Microwave Absorption by Rydberg Atoms in a Cavity. Physical Review Letters, 1984, 53, 1732-1734.	2.9	363
134	Absorption spectrum of optically bistable systems. Physical Review A, 1979, 20, 545-549.	1.0	15
135	Interaction of electromagnetic waves at rough dielectric surfaces. Physical Review B, 1977, 15, 2371-2383.	1.1	105
136	Quantum electrodynamics in the presence of dielectrics and conductors. I. Electromagnetic-field response functions and black-body fluctuations in finite geometries. Physical Review A, 1975, 11, 230-242.	1.0	323
137	Quantum electrodynamics in the presence of dielectrics and conductors. IV. General theory for spontaneous emission in finite geometries. Physical Review A, 1975, 12, 1475-1497.	1.0	212
138	Field-Correlation Effects in Multiphoton Absorption Processes. Physical Review A, 1970, 1, 1445-1459.	1.0	200