

Shengwang Du

List of Publications by Year in descending order

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129
papers

4,367
citations

94269

37
h-index

114278

63
g-index

153
all docs

153
docs citations

153
times ranked

3842
citing authors

#	ARTICLE	IF	CITATIONS
1	All-optical neural network with nonlinear activation functions. <i>Optica</i> , 2019, 6, 1132.	4.8	222
2	Efficient quantum memory for single-photon polarization qubits. <i>Nature Photonics</i> , 2019, 13, 346-351.	15.6	183
3	Electro-Optic Modulation of Single Photons. <i>Physical Review Letters</i> , 2008, 101, 103601.	2.9	179
4	Oxygen-Assisted Charge Transfer Between ZnO Quantum Dots and Graphene. <i>Small</i> , 2013, 9, 3031-3036.	5.2	174
5	Subnatural Linewidth Biphotons with Controllable Temporal Length. <i>Physical Review Letters</i> , 2008, 100, 183603.	2.9	171
6	A Mitochondrion-Specific Photoactivatable Fluorescence Turn-On AlE-Based Bioprobe for Localization Super-Resolution Microscope. <i>Advanced Materials</i> , 2016, 28, 5064-5071.	11.1	166
7	RIM and RIM-BP Form Presynaptic Active-Zone-like Condensates via Phase Separation. <i>Molecular Cell</i> , 2019, 73, 971-984.e5.	4.5	166
8	Coherent Optical Memory with High Storage Efficiency and Large Fractional Delay. <i>Physical Review Letters</i> , 2013, 110, 083601.	2.9	164
9	Generation of Narrow-Bandwidth Paired Photons: Use of a Single Driving Laser. <i>Physical Review Letters</i> , 2006, 97, 113602.	2.9	142
10	Narrowband biphoton generation near atomic resonance. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2008, 25, C98.	0.9	132
11	Four-Wave Mixing and Biphoton Generation in a Two-Level System. <i>Physical Review Letters</i> , 2007, 98, 053601.	2.9	110
12	Atom-chip Bose-Einstein condensation in a portable vacuum cell. <i>Physical Review A</i> , 2004, 70, .	1.0	93
13	Subnatural-linewidth biphotons from a Doppler-broadened hot atomic vapour cell. <i>Nature Communications</i> , 2016, 7, 12783.	5.8	85
14	Electromagnetically induced Talbot effect. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	79
15	Generation of Narrow-Band Hyperentangled Nondegenerate Paired Photons. <i>Physical Review Letters</i> , 2011, 106, 033601.	2.9	78
16	Optical Precursors with Electromagnetically Induced Transparency in Cold Atoms. <i>Physical Review Letters</i> , 2009, 103, 093602.	2.9	75
17	Piezotronic Effects on the Optical Properties of ZnO Nanowires. <i>Nano Letters</i> , 2012, 12, 5802-5807.	4.5	73
18	Anti-Parity-Time Symmetric Optical Four-Wave Mixing in Cold Atoms. <i>Physical Review Letters</i> , 2019, 123, 193604.	2.9	65

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19	Quantum Heat Engine Using Electromagnetically Induced Transparency. <i>Physical Review Letters</i> , 2017, 119, 050602.	2.9	64
20	A Distinct Pathway for Polar Exocytosis in Plant Cell Wall Formation. <i>Plant Physiology</i> , 2016, 172, 1003-1018.	2.3	61
21	Optimal storage and retrieval of single-photon waveforms. <i>Optics Express</i> , 2012, 20, 24124.	1.7	60
22	ATM and ATR play complementary roles in the behavior of excitatory and inhibitory vesicle populations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E292-E301.	3.3	58
23	Optical storage with electromagnetically induced transparency in a dense cold atomic ensemble. <i>Optics Letters</i> , 2011, 36, 4530.	1.7	57
24	A dark-line two-dimensional magneto-optical trap of 85Rb atoms with high optical depth. <i>Review of Scientific Instruments</i> , 2012, 83, 073102.	0.6	57
25	Coherent Control of Single-Photon Absorption and Reemission in a Two-Level Atomic Ensemble. <i>Physical Review Letters</i> , 2012, 109, 263601.	2.9	57
26	Photon pairs with coherence time exceeding 1 ns. <i>Optica</i> , 2014, 1, 84.	4.8	57
27	Optical Precursor of a Single Photon. <i>Physical Review Letters</i> , 2011, 106, 243602.	2.9	56
28	Shaping Biphoton Temporal Waveforms with Modulated Classical Fields. <i>Physical Review Letters</i> , 2010, 104, 183604.	2.9	48
29	Multicolor 4D Fluorescence Microscopy using Ultrathin Bessel Light Sheets. <i>Scientific Reports</i> , 2016, 6, 26159.	1.6	48
30	Observation of optical precursors at the biphoton level. <i>Optics Letters</i> , 2008, 33, 2149.	1.7	47
31	A user-friendly two-color super-resolution localization microscope. <i>Optics Express</i> , 2015, 23, 1879.	1.7	47
32	Efficiently Loading a Single Photon into a Single-Sided Fabry-Perot Cavity. <i>Physical Review Letters</i> , 2014, 113, 133601.	2.9	46
33	Subnatural-Linewidth Polarization-Entangled Photon Pairs with Controllable Temporal Length. <i>Physical Review Letters</i> , 2014, 112, 243602.	2.9	46
34	Four-wave mixing in three-level systems: Interference and entanglement. <i>Physical Review A</i> , 2007, 76, .	1.0	45
35	Cdk5-dependent phosphorylation of liprin β 1 mediates neuronal activity-dependent synapse development. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E6992-E7001.	3.3	45
36	Biphoton generation in a two-level atomic ensemble. <i>Physical Review A</i> , 2007, 75, .	1.0	42

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37	Nonclassical light generation via a four-level inverted-Y system. <i>Physical Review A</i> , 2008, 77, .	1.0	42
38	Overlapped illusion optics: a perfect lens brings a brighter feature. <i>New Journal of Physics</i> , 2011, 13, 023010.	1.2	40
39	Shaping the Biphoton Temporal Waveform with Spatial Light Modulation. <i>Physical Review Letters</i> , 2015, 115, 193601.	2.9	40
40	Measuring the Biphoton Temporal Wave Function with Polarization-Dependent and Time-Resolved Two-Photon Interference. <i>Physical Review Letters</i> , 2015, 114, 010401.	2.9	38
41	Modulation and measurement of time-energy entangled photons. <i>Physical Review A</i> , 2009, 80, .	1.0	35
42	Testing the Bell inequality on frequency-bin entangled photon pairs using time-resolved detection. <i>Optica</i> , 2017, 4, 388.	4.8	35
43	Two-way transparency in the light-matter interaction: Optical precursors with electromagnetically induced transparency. <i>Physical Review A</i> , 2009, 79, .	1.0	34
44	Engineering biphoton wave packets with an electromagnetically induced grating. <i>Physical Review A</i> , 2010, 82, .	1.0	34
45	Two-photon interferences with degenerate and nondegenerate paired photons. <i>Physical Review A</i> , 2012, 85, .	1.0	31
46	Bright narrowband biphoton generation from a hot rubidium atomic vapor cell. <i>Applied Physics Letters</i> , 2017, 110, 161101.	1.5	31
47	GAS2L1 Is a Centriole-Associated Protein Required for Centrosome Dynamics and Disjunction. <i>Developmental Cell</i> , 2017, 40, 81-94.	3.1	31
48	Stacked Optical Precursors from Amplitude and Phase Modulations. <i>Physical Review Letters</i> , 2010, 104, 223602.	2.9	30
49	Narrowband biphoton generation in the group delay regime. <i>Physical Review A</i> , 2016, 93, .	1.0	29
50	Impairment of Inhibitory Synapse Formation and Motor Behavior in Mice Lacking the NL2 Binding Partner LHFPL4/GARLH4. <i>Cell Reports</i> , 2018, 23, 1691-1705.	2.9	29
51	Optical coherent transients in cold atoms: From free-induction decay to optical precursors. <i>Physical Review A</i> , 2010, 81, .	1.0	26
52	Spontaneous parametric down-conversion in a three-level system. <i>Physical Review A</i> , 2007, 76, .	1.0	25
53	Quantum-state purity of heralded single photons produced from frequency-anticorrelated biphotons. <i>Physical Review A</i> , 2015, 92, .	1.0	25
54	Raman spectroscopy of iodine molecules trapped in zeolite crystals. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	24

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55	Visualization of Protein Sorting at the Trans-Golgi Network and Endosomes Through Super-Resolution Imaging. <i>Frontiers in Cell and Developmental Biology</i> , 2019, 7, 181.	1.8	24
56	Slow-light-induced interference with stacked optical precursors for square input pulses. <i>Optics Letters</i> , 2010, 35, 124.	1.7	23
57	ATM protein is located on presynaptic vesicles and its deficit leads to failures in synaptic plasticity. <i>Journal of Neurophysiology</i> , 2016, 116, 201-209.	0.9	22
58	Reversible Control of the Orientation of Iodine Molecules inside the AlPO ₄ -11 Crystals. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4423-4430.	1.5	21
59	Tripartite entanglement generation via four-wave mixings: narrowband triphoton W state. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, A11.	0.9	20
60	Narrowband biphotons with polarization-frequency-coupled entanglement. <i>Physical Review A</i> , 2015, 91, .	1.0	20
61	Development of in Planta Chemical Cross-Linking-Based Quantitative Interactomics in <i>Arabidopsis</i> . <i>Journal of Proteome Research</i> , 2018, 17, 3195-3213.	1.8	20
62	Temporally shaping biphoton wave packets with periodically modulated driving fields. <i>Physical Review A</i> , 2009, 79, .	1.0	19
63	Einstein-Podolsky-Rosen Energy-Time Entanglement of Narrow-Band Biphotons. <i>Physical Review Letters</i> , 2020, 124, 010509.	2.9	17
64	Electro-optical tunable time delay and advance in a silicon feedback-microring resonator. <i>Optics Letters</i> , 2011, 36, 1278.	1.7	16
65	Nitrogen deep accepters in ZnO nanowires induced by ammonia plasma. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	16
66	Differential-phase-shift quantum key distribution using heralded narrow-band single photons. <i>Optics Express</i> , 2013, 21, 9505.	1.7	15
67	Efficient production of a narrow-line erbium magneto-optical trap with two-stage slowing. <i>Physical Review A</i> , 2020, 102, .	1.0	14
68	Scalability of All-Optical Neural Networks Based on Spatial Light Modulators. <i>Physical Review Applied</i> , 2021, 15, .	1.5	14
69	Quantum Squeezing and Sensing with Pseudo-Anti-Parity-Time Symmetry. <i>Physical Review Letters</i> , 2022, 128, 173602.	2.9	14
70	$\langle \hat{I} \rangle$ -Quench Measurement of a Pure Quantum-State Wave Function. <i>Physical Review Letters</i> , 2019, 123, 190402.	2.9	13
71	Tuning the optical and electrical properties of hydrothermally grown ZnO nanowires by sealed post annealing treatment. <i>Solid State Communications</i> , 2013, 160, 41-46.	0.9	12
72	Intracavity cold atomic ensemble with high optical depth. <i>Review of Scientific Instruments</i> , 2019, 90, 013105.	0.6	10

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73	Improving spatial resolution in quantum imaging beyond the Rayleigh diffraction limit using multiphoton W entangled states. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2010, 374, 3908-3911.	0.9	9
74	Atomic-resonance-enhanced nonlinear optical frequency conversion with entangled photon pairs. <i>Physical Review A</i> , 2011, 83, .	1.0	9
75	Efficient Phase-Encoding Quantum Key Generation with Narrow-Band Single Photons. <i>Chinese Physics Letters</i> , 2011, 28, 070307.	1.3	9
76	Estimating Atomic Sizes with Raman Spectroscopy. <i>Scientific Reports</i> , 2013, 3, 1486.	1.6	9
77	Manipulating photon emission efficiency with local electronic states in a tunneling gap. <i>Optics Express</i> , 2014, 22, 8234.	1.7	9
78	TEFM Enhances Transcription Elongation by Modifying mtRNAP Pausing Dynamics. <i>Biophysical Journal</i> , 2018, 115, 2295-2300.	0.2	9
79	Subwavelength transportation of light with atomic resonances. <i>Physical Review A</i> , 2015, 92, .	1.0	8
80	Frequency-induced phase-tunable polarization-entangled narrowband biphotons. <i>Optica</i> , 2015, 2, 505.	4.8	8
81	One-sided destructive quantum interference from an exceptional-point-based metasurface. <i>Physical Review A</i> , 2021, 104, .	1.0	8
82	Two-photon beating experiment using biphotons generated from a two-level system. <i>Physical Review A</i> , 2008, 78, .	1.0	7
83	Optical precursors with finite rise and fall time. <i>Journal of Optics (United Kingdom)</i> , 2010, 12, 104010.	1.0	7
84	Mirrorless Optical Parametric Oscillation with Tunable Threshold in Cold Atoms. <i>Physical Review Letters</i> , 2017, 119, 150406.	2.9	7
85	Single photon at a configurable quantum-memory-based beam splitter. <i>Physical Review A</i> , 2018, 97, .	1.0	7
86	Three-wire magnetic trap for direct forced evaporative cooling. <i>Physical Review A</i> , 2009, 79, .	1.0	6
87	Narrowband photon pair generation and waveform reshaping. <i>Frontiers of Physics</i> , 2012, 7, 494-503.	2.4	6
88	Quantitative surface topography of martensitic microstructure by differential interference contrast microscopy. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 124, 102-114.	2.3	6
89	Dual beam-shear differential interference microscopy for full-field surface deformation gradient characterization. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 145, 104162.	2.3	6
90	Proposed narrowband biphoton generation from an ensemble of solid-state quantum emitters. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, 646.	0.9	5

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91	Optical neural network quantum state tomography. <i>Advanced Photonics</i> , 2022, 4, .	6.2	5
92	An integrated single- and two-photon non-diffracting light-sheet microscope. <i>Review of Scientific Instruments</i> , 2018, 89, 043701.	0.6	4
93	Tailor-made unitary operations using dielectric metasurfaces. <i>Optics Express</i> , 2021, 29, 5677.	1.7	4
94	Hybrid Entanglement between Optical Discrete Polarizations and Continuous Quadrature Variables. <i>Photonics</i> , 2021, 8, 552.	0.9	4
95	Effective control of photoluminescence from ZnO nanowires by a-SiN _x :H decoration. <i>Optics Letters</i> , 2012, 37, 211.	1.7	3
96	Measuring optical beam shear angle of polarizing prisms beyond the diffraction limit with localization method. <i>Optics Communications</i> , 2019, 435, 227-231.	1.0	3
97	Two-photon free-induction decay with electromagnetically induced transparency. <i>Optics Letters</i> , 2010, 35, 1923.	1.7	2
98	Atomic magnetometer based on a double-dark-state system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2011, 375, 3296-3299.	0.9	2
99	Optical Precursors. <i>SpringerBriefs in Physics</i> , 2013, , .	0.2	2
100	Efficient direct evaporative cooling in an atom-chip magnetic trap. <i>Physical Review A</i> , 2013, 87, .	1.0	2
101	FROZEN IODINE MOLECULES IN NANO-PORES OF ZEOLITE SINGLE CRYSTALS. <i>Modern Physics Letters B</i> , 2013, 27, 1330014.	1.0	2
102	High-storage efficiency EIT-based optical memory. , 2014, , .		2
103	Far-off-resonant ring trap near the ends of optical fibers. <i>Physical Review A</i> , 2007, 76, .	1.0	1
104	Frequency-bin entanglement with tunable phase. <i>Journal of Optics (United Kingdom)</i> , 2015, 17, 105201.	1.0	1
105	Light sheets with extended length. <i>Optics Communications</i> , 2019, 450, 166-171.	1.0	1
106	Optical Precursors in Slow and Fast Light Media. , 2011, , .		0
107	Manipulating cold atoms with off-axis rotating traps. <i>Journal of the Korean Physical Society</i> , 2013, 63, 938-942.	0.3	0
108	Charge Transfer: Oxygen-Assisted Charge Transfer Between ZnO Quantum Dots and Graphene (Small) Tj ETQq0 0 Q rgBT /Overlock 10 T	5.2	0

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109	Generation of Subnatural Linewidth Biphotons. , 2007, , .		0
110	Four-Wave Mixing and Two-Photon Interference in a Three-Level Atomic Ensemble. , 2007, , .		0
111	A New Beating Experiment Using Biphotons Generated from a Two-Level System. , 2007, , .		0
112	Measurement of Biphoton Wavefunctions using Fast Amplitude Modulators. , 2008, , .		0
113	Modulation and Measurement of Time-Energy Entangled Photons. , 2009, , .		0
114	Shaping Paired Photons with Four-Wave Mixing and Slow Light. , 2009, , .		0
115	Narrowband Triphoton W State Generation via Four-Wave Mixings. , 2009, , .		0
116	Generation of Narrowband Hyperentangled Biphotons. , 2011, , .		0
117	Theory of Optical Precursors. SpringerBriefs in Physics, 2013, , 13-31.	0.2	0
118	Observation of Optical Precursors in Cold Atoms. SpringerBriefs in Physics, 2013, , 45-64.	0.2	0
119	Single-Photon Absorption and Reemission in Two-Level Cold Atoms. , 2013, , .		0
120	Optical Precursor of a Single Photon. SpringerBriefs in Physics, 2013, , 65-74.	0.2	0
121	Narrowband Biphotons: Generation, Manipulation, and Applications. Nano-optics and Nanophotonics, 2015, , 145-182.	0.2	0
122	Generation of frequency-bin entangled narrowband biphotons and their Bell test. , 2017, , .		0
123	Entangling Narrowband Photon Pairs. , 2017, , .		0
124	Enhanced spectral brightness of narrowband photon pair generation from a hot atomic vapor cell. , 2017, , .		0
125	Engineering Narrowband Biphotons. , 2018, , .		0
126	Configurable Beam Splitting of Single Photon in Cold Atoms. , 2019, , .		0

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127	Non-Hermitian Nonlinear Optics without Gain and Loss. , 2019, , .		0
128	Efficiently Loading Cold Atomic Ensemble into an Optical Cavity with High Optical Depth. , 2019, , .		0
129	Wavelength conversion for single-photon polarization qubits through continuous-variable quantum teleportation. Physical Review A, 2022, 105, .	1.0	0