

# Jeff Lundeen

## List of Publications by Year in descending order

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Version: 2024-02-01

80  
papers

5,955  
citations

136950

32  
h-index

138484

58  
g-index

81  
all docs

81  
docs citations

81  
times ranked

3748  
citing authors

#	ARTICLE	IF	CITATIONS
1	Super-resolving phase measurements with a multiphoton entangled state. Nature, 2004, 429, 161-164.	27.8	720
2	Direct measurement of the quantum wavefunction. Nature, 2011, 474, 188-191.	27.8	567
3	Heralded Generation of Ultrafast Single Photons in Pure Quantum States. Physical Review Letters, 2008, 100, 133601.	7.8	502
4	Using coherence to enhance function in chemical and biophysical systems. Nature, 2017, 543, 647-656.	27.8	477
5	Optimal Quantum Phase Estimation. Physical Review Letters, 2009, 102, 040403.	7.8	375
6	Experimental Joint Weak Measurement on a Photon Pair as a Probe of Hardy's Paradox. Physical Review Letters, 2009, 102, 020404.	7.8	299
7	Tomography of quantum detectors. Nature Physics, 2009, 5, 27-30.	16.7	267
8	Quantum phase estimation with lossy interferometers. Physical Review A, 2009, 80, .	2.5	239
9	Procedure for Direct Measurement of General Quantum States Using Weak Measurement. Physical Review Letters, 2012, 108, 070402.	7.8	223
10	Experimental realization of the quantum box problem. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 324, 125-131.	2.1	182
11	Photon pair-state preparation with tailored spectral properties by spontaneous four-wave mixing in photonic-crystal fiber. Optics Express, 2007, 15, 14870.	3.4	174
12	Tailored Photon-Pair Generation in Optical Fibers. Physical Review Letters, 2009, 102, 123603.	7.8	163
13	Experimental Application of Decoherence-Free Subspaces in an Optical Quantum-Computing Algorithm. Physical Review Letters, 2003, 91, 187903.	7.8	144
14	Photon pair generation in birefringent optical fibers. Optics Express, 2009, 17, 23589.	3.4	133
15	A double-slit "which-way" experiment on the complementarity-uncertainty debate. New Journal of Physics, 2007, 9, 287-287.	2.9	131
16	Conditional preparation of single photons using parametric downconversion: a recipe for purity. New Journal of Physics, 2008, 10, 093011.	2.9	105
17	Direct Measurement of the Density Matrix of a Quantum System. Physical Review Letters, 2016, 117, 120401.	7.8	105
18	Quantum State Preparation and Conditional Coherence. Physical Review Letters, 2002, 88, 113601.	7.8	87

#	ARTICLE	IF	CITATIONS
19	Observing Dirac's Classical Phase Space Analog to the Quantum State. Physical Review Letters, 2014, 112, 070405.	7.8	82
20	Weak Value Amplification Can Outperform Conventional Measurement in the Presence of Detector Saturation. Physical Review Letters, 2017, 118, 070802.	7.8	76
21	Mapping coherence in measurement via full quantum tomography of a hybrid optical detector. Nature Photonics, 2012, 6, 364-368.	31.4	74
22	Measuring measurement: theory and practice. New Journal of Physics, 2009, 11, 093038.	2.9	73
23	Conditional-Phase Switch at the Single-Photon Level. Physical Review Letters, 2002, 89, 037904.	7.8	70
24	Practical measurement of joint weak values and their connection to the annihilation operator. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 334, 337-344.	2.1	62
25	An optic to replace space and its application towards ultra-thin imaging systems. Nature Communications, 2021, 12, 3512.	12.8	52
26	Classical dispersion-cancellation interferometry. Optics Express, 2007, 15, 8797.	3.4	50
27	Approaching Quantum-Limited Metrology with Imperfect Detectors by Using Weak-Value Amplification. Physical Review Letters, 2020, 125, 080501.	7.8	41
28	Nonlinear Optics with Less Than One Photon. Physical Review Letters, 2001, 87, 123603.	7.8	40
29	Absolute efficiency estimation of photon-number-resolving detectors using twin beams. Optics Express, 2009, 17, 4397.	3.4	38
30	A characterization of the single-photon sensitivity of an electron multiplying charge-coupled device. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 114011.	1.5	37
31	Nonlinearity in single photon detection: modeling and quantum tomography. Optics Express, 2011, 19, 21305.	3.4	37
32	Total reflection cannot occur with a negative delay time. IEEE Journal of Quantum Electronics, 2001, 37, 794-799.	1.9	33
33	Optimal experiment design for quantum state tomography: Fair, precise, and minimal tomography. Physical Review A, 2010, 81, .	2.5	33
34	Bridging Particle and Wave Sensitivity in a Configurable Detector of Positive Operator-Valued Measures. Physical Review Letters, 2009, 102, 080404.	7.8	31
35	A proposed testbed for detector tomography. Journal of Modern Optics, 2009, 56, 432-441.	1.3	31
36	Experimental observation of nonclassical effects on single-photon detection rates. Physical Review A, 2001, 63, .	2.5	30

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37	Arbitrary optical wave evolution with Fourier transforms and phase masks. Optics Express, 2021, 29, 38441.	3.4	16
38	Experimental simultaneous readout of the real and imaginary parts of the weak value. Physical Review A, 2019, 100, .	2.5	15
39	Experimental investigation of measurement-induced disturbance and time symmetry in quantum physics. Physical Review A, 2018, 97, .	2.5	11
40	To what extent can space be compressed? Bandwidth limits of spaceplates. Optica, 2022, 9, 738.	9.3	11
41	Comment on "Manipulating the frequency-entangled states by an acoustic-optical modulator". Physical Review A, 2001, 64, .	2.5	10
42	Theory of four-wave mixing of cylindrical vector beams in optical fibers. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1670.	2.1	10
43	Pump depletion in parametric down-conversion with low pump energies. Optics Letters, 2020, 45, 4264.	3.3	10
44	Designing high-performance propagation-compressing spaceplates using thin-film multilayer stacks. Optics Express, 2022, 30, 2197.	3.4	9
45	Weak-value measurements can outperform conventional measurements. Physica Scripta, 2017, 92, 023001.	2.5	8
46	Determining Complementary Properties with Quantum Clones. Physical Review Letters, 2017, 119, 050405.	7.8	8
47	A variable partially polarizing beam splitter. Review of Scientific Instruments, 2018, 89, 023108.	1.3	8
48	Determining complementary properties using weak-measurement: uncertainty, predictability, and disturbance. New Journal of Physics, 2018, 20, 113034.	2.9	8
49	Measurement of the transverse electric field profile of light by a self-referencing method with direct phase determination. Optics Express, 2012, 20, 2034.	3.4	7
50	The phase sensitivity of a fully quantum three-mode nonlinear interferometer. New Journal of Physics, 2018, 20, 123022.	2.9	7
51	Comment on "Linear optics implementation of weak values in Hardy's paradox". Physical Review A, 2005, 72, .	2.5	6
52	Electromagnetically induced opacity for photon pairs. Journal of Modern Optics, 2002, 49, 487-502.	1.3	5
53	A short perspective on long crystals: broadband wave mixing and its application to ultrafast quantum optics. Journal of Modern Optics, 2007, 54, 1939-1958.	1.3	4
54	High-dimension experimental tomography of a path-encoded photon quantum state. Photonics Research, 2019, 7, A27.	7.0	4

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55	Theory and experiment for resource-efficient joint weak-measurement. Quantum - the Open Journal for Quantum Science, 0, 5, 599.	0.0	4
56	Super-critical phasematching for photon pair generation in structured light modes. Optics Express, 2016, 24, 24495.	3.4	3
57	Projecting onto any two-photon polarization state using linear optics. New Journal of Physics, 2018, 20, 083033.	2.9	3
58	Photon-exchange effects on photon-pair transmission. Physical Review A, 2004, 69, .	2.5	2
59	Quantum process tomography and the search for decoherence-free subspaces. , 2004, 5436, 223.		1
60	Joint Photon Statistics of Photon-Subtracted Squeezed Light. , 2009, , .		1
61	Focusing on factorability: space-time coupling in the generation of pure heralded single photons. Journal of Modern Optics, 2009, 56, 179-189.	1.3	1
62	Experimental generation of entangled states by post-selected linear-optics operations. , 2004, , IMG5.		0
63	Experimental production of pure single-photon states. , 2007, , .		0
64	Compact coupler designs for quantum optical circuits produced by direct UV writing. , 2009, , .		0
65	Quantum-enhanced phase estimation in the presence of loss. , 2009, , .		0
66	Photon Pair Generation via Spontaneous Four-Wave Mixing in Birefringent Optical Fibers. , 2009, , .		0
67	Full characterization of quantum optical detectors. , 2009, , .		0
68	Complete Characterization of Weak-Homodyne Photon-Number-Resolving Detectors: Applications to Non-Classical Photonic State Reconstructions. , 2010, , .		0
69	Super-critical phase-matching in nonlinear optics. , 2015, , .		0
70	Direct Measurement of the Photon's Spatial Wave Function. Springer Series in Optical Sciences, 2019, , 25-49.	0.7	0
71	PRACTICAL CREATION AND DETECTION OF POLARIZATION BELL STATES USING PARAMETRIC DOWN-CONVERSION. , 2003, , .		0
72	Two views of absorptive photon exchange effects. , 2004, , .		0

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73	Photon Pair Generation in Birefringent Fiber: A Route to Better Photons. , 2009, , .		0
74	Optimal Experiment Design for Minimal Tomography. , 2010, , .		0
75	Absolute Calibration of Optical Detectors Using Two-Mode Squeezed Light. , 2011, , .		0
76	Measurement of Incompatible Observables via the Cloning of Quantum States. , 2016, , .		0
77	Directly Measuring the Density Matrix Using Weak Measurements. , 2016, , .		0
78	Towards the generation of entangled photon pairs using a tapered fiber coupler. , 2016, , .		0
79	Experimental Demonstration of Conditional Weak Measurement and Its Use on Incompatible Observables. , 2021, , .		0
80	Theory and experiment for resource-efficient joint weak- measurement. , 2021, , .		0