

# Mark Beck

## List of Publications by Year in descending order

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55  
papers

3,367  
citations

279798

23  
h-index

243625

44  
g-index

55  
all docs

55  
docs citations

55  
times ranked

1563  
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of the Wigner distribution and the density matrix of a light mode using optical homodyne tomography: Application to squeezed states and the vacuum. <i>Physical Review Letters</i> , 1993, 70, 1244-1247.	7.8	1,339
2	Complex wave-field reconstruction using phase-space tomography. <i>Physical Review Letters</i> , 1994, 72, 1137-1140.	7.8	313
3	Measurement of number-phase uncertainty relations of optical fields. <i>Physical Review A</i> , 1993, 48, 3159-3167.	2.5	176
4	Complete experimental characterization of the quantum state of a light mode via the Wigner function and the density matrix: application to quantum phase distributions of vacuum and squeezed-vacuum states. <i>Physica Scripta</i> , 1993, T48, 35-44.	2.5	148
5	Optical phase retrieval by phase-space tomography and fractional-order Fourier transforms. <i>Optics Letters</i> , 1995, 20, 1181.	3.3	143
6	Chronocyclic tomography for measuring the amplitude and phase structure of optical pulses. <i>Optics Letters</i> , 1993, 18, 2041.	3.3	122
7	Observing the quantum behavior of light in an undergraduate laboratory. <i>American Journal of Physics</i> , 2004, 72, 1210-1219.	0.7	92
8	Experimental determination of quantum-phase distributions using optical homodyne tomography. <i>Physical Review A</i> , 1993, 48, R890-R893.	2.5	81
9	Ultrafast measurement of optical-field statistics by dc-balanced homodyne detection. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1995, 12, 1801.	2.1	80
10	Measurement of group delay with high temporal and spectral resolution. <i>Optics Letters</i> , 1990, 15, 492.	3.3	74
11	Quadrature squeezing with ultrashort pulses in nonlinear-optical waveguides. <i>Optics Letters</i> , 1995, 20, 620.	3.3	74
12	Sub-shot-noise correlation of total photon number using macroscopic twin pulses of light. <i>Physical Review Letters</i> , 1992, 69, 2650-2653.	7.8	73
13	Comparing measurements of $g^{(2)}(0)$ performed with different coincidence detection techniques. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 2972.	2.1	70
14	Experimental determination of number-phase uncertainty relations. <i>Optics Letters</i> , 1993, 18, 1259.	3.3	56
15	Group delay measurements of optical components near 800 nm. <i>IEEE Journal of Quantum Electronics</i> , 1991, 27, 2074-2081.	1.9	46
16	Ultrashort pulsed squeezing by optical parametric amplification. <i>Physical Review A</i> , 1995, 52, 4202-4213.	2.5	42
17	Instabilities and chaos in a multimode, standing-wave, cw dye laser. <i>Physical Review A</i> , 1988, 38, 820-832.	2.5	41
18	Quantum State Tomography with Array Detectors. <i>Physical Review Letters</i> , 2000, 84, 5748-5751.	7.8	41

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19	Joint Quantum Measurement Using Unbalanced Array Detection. <i>Physical Review Letters</i> , 2001, 87, 253601.	7.8	37
20	Many-port homodyne detection of an optical phase. <i>Physical Review A</i> , 1993, 48, 4617-4628.	2.5	36
21	Low-cost coincidence-counting electronics for undergraduate quantum optics. <i>American Journal of Physics</i> , 2009, 77, 667-670.	0.7	34
22	Comparing quantum and classical correlations in a quantum eraser. <i>Physical Review A</i> , 2005, 71, .	2.5	29
23	Quantum mysteries tested: An experiment implementing Hardy's test of local realism. <i>American Journal of Physics</i> , 2006, 74, 180-186.	0.7	28
24	Transition from quantum-noise-driven dynamics to deterministic dynamics in a multimode laser. <i>Physical Review A</i> , 1989, 40, 2410-2416.	2.5	18
25	7 Experimental Quantum State Tomography of Optical Fields and Ultrafast Statistical Sampling. <i>Lecture Notes in Physics</i> , 2004, , 235-295.	0.7	18
26	Pure Single Photons From Scalable Frequency Multiplexing. <i>Physical Review Applied</i> , 2020, 14, .	3.8	15
27	Sub-Poissonian photocurrent statistics: Theory and undergraduate experiment. <i>American Journal of Physics</i> , 1997, 65, 492-500.	0.7	13
28	Quantum States and Number-Phase Uncertainty Relations Measured by Optical Homodyne Tomography. <i>Acta Physica Polonica A</i> , 1994, 86, 71-80.	0.5	13
29	Simultaneous quantum-state measurements using array detection. <i>Physical Review A</i> , 2001, 63, .	2.5	11
30	Mode optimization for quantum-state tomography with array detectors. <i>Physical Review A</i> , 2003, 67, .	2.5	11
31	Note: Scalable multiphoton coincidence-counting electronics. <i>Review of Scientific Instruments</i> , 2011, 82, 016102.	1.3	11
32	Strong-field dynamics of a multimode, standing-wave dye laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1988, 5, 1588.	2.1	9
33	Noise behavior of pulsed vertical-cavity surface-emitting lasers. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1999, 16, 2124.	2.1	9
34	Experimental demonstration of loop state-preparation-and-measurement tomography. <i>Physical Review A</i> , 2017, 95, .	2.5	9
35	Witnessing entanglement in an undergraduate laboratory. <i>American Journal of Physics</i> , 2016, 84, 87-94.	0.7	8
36	The role of amplitude and phase shaping in the dispersive-pulse regime of a passively mode-locked dye laser. <i>IEEE Journal of Quantum Electronics</i> , 1992, 28, 2274-2284.	1.9	6

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37	An FPGA-based module for multiphoton coincidence counting. Proceedings of SPIE, 2012, , .	0.8	6
38	Exploring entanglement with the help of quantum state measurement. American Journal of Physics, 2014, 82, 962-971.	0.7	6
39	Quantum optics experiments with single photons for undergraduate laboratories. Proceedings of SPIE, 2015, , .	0.8	6
40	Polarization correlations in pulsed, vertical-cavity, surface-emitting lasers. Optics Express, 2000, 7, 249.	3.4	5
41	Quantum-state tomography of single-photon entangled states. Physical Review A, 2015, 92, .	2.5	5
42	Spatial and Temporal Optical Field Reconstruction Using Phase-Space Tomography. Springer Proceedings in Physics, 1994, , 245-253.	0.2	4
43	Self-consistent state and measurement tomography with fewer measurements. Physical Review A, 2021, 104, .	2.5	3
44	Loop state-preparation-and-measurement tomography of a two-qubit system. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1811.	2.1	3
45	<title>Time-frequency spectrograms of optical pulses</title>. , 1995, , .		1
46	Quantum optics laboratories for undergraduates. , 2014, , .		1
47	Scalable Multi-Photon Coincidence-Counting Electronics. , 2011, , .		1
48	Number-phase Uncertainty Relations. Optics and Photonics News, 1993, 4, 40.	0.5	0
49	Quantum Optics in the Undergraduate Teaching Laboratory. , 2007, , .		0
50	Simultaneous quantum state measurements using array detection. , 2003, , 301-302.		0
51	Joint Quantum Measurement Using Fourier-Transform Spectral Interferometry. Springer Series in Chemical Physics, 2003, , 235-237.	0.2	0
52	Joint quantum measurement using unbalanced array detection. , 2003, , 455-456.		0
53	Low-Cost Coincidence-Counting Electronics for Quantum Optics. , 2007, , .		0
54	Photon Statistics of Pulsed, Vertical-Cavity, Surface-Emitting Lasers. , 1999, , .		0

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55	Detecting nonlocal correlated errors: Bob gets caught faking a Bell-inequality violation. , 2017, , .		0