

Martin Weitz

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

104
papers

4,500
citations

34
h-index

66
g-index

116
ext. papers

5,054
ext. citations

6.9
avg, IF

5.17
L-index

#	Paper	IF	Citations
104	Compressibility and the equation of state of an optical quantum gas in a box.. <i>Science</i> , 2022 , 375, 1403-1406	33.3	1
103	Observation of a non-Hermitian phase transition in an optical quantum gas. <i>Science</i> , 2021 , 372, 88-91	33.3	7
102	Sapphire optical viewport for high pressure and temperature applications. <i>Review of Scientific Instruments</i> , 2021 , 92, 065109	1.7	0
101	Phasen eines Bose-Einstein-Kondensats aus Licht. <i>Physik in Unserer Zeit</i> , 2021 , 52, 162-163	0.1	
100	Synthetic magnetic fields for cold erbium atoms. <i>Physical Review A</i> , 2020 , 101,	2.6	1
99	Realizing arbitrary trapping potentials for light via direct laser writing of mirror surface profiles. <i>Europhysics Letters</i> , 2020 , 130, 54001	1.6	5
98	Fluctuation dynamics of an open photon Bose-Einstein condensate. <i>Physical Review A</i> , 2019 , 100,	2.6	3
97	Thermally condensing photons into a coherently split state of light. <i>Science</i> , 2019 , 366, 894-897	33.3	10
96	Absorption Spectroscopy of Xenon and Ethylene Noble Gas Mixtures at High Pressure: Towards Bose-Einstein Condensation of Vacuum Ultraviolet Photons 2018 , 729-739		
95	Rubidium spectroscopy at high-pressure buffer gas conditions: detailed balance in the optical interaction of an absorber coupled to a reservoir. <i>Physica Scripta</i> , 2018 , 93, 124006	2.6	2
94	Verifying thermodynamic equilibrium of molecular manifolds: Kennard-Stepanov spectroscopy of a molecular gas. <i>Physical Review A</i> , 2017 , 95,	2.6	3
93	First-order spatial coherence measurements in a thermalized two-dimensional photonic quantum gas. <i>Nature Communications</i> , 2017 , 8, 158	17.4	14
92	Quantum Rabi model in the Brillouin zone with ultracold atoms. <i>Physical Review A</i> , 2017 , 95,	2.6	20
91	Variable potentials for thermalized light and coupled condensates. <i>Nature Photonics</i> , 2017 , 11, 565-569	33.9	37
90	Bose-Einstein condensation of erbium atoms in a quasioleostatic optical dipole trap. <i>Physical Review A</i> , 2017 , 95,	2.6	8
89	Thermo-optical interactions in a dye-microcavity photon Bose-Einstein condensate. <i>New Journal of Physics</i> , 2017 , 19, 115009	2.9	14
88	Spontaneous Symmetry Breaking and Phase Coherence of a Photon Bose-Einstein Condensate Coupled to a Reservoir. <i>Physical Review Letters</i> , 2016 , 116, 033604	7.4	23

87	Phase dependent loading of Bloch bands and quantum simulation of relativistic wave equation predictions with ultracold atoms in variably shaped optical lattice potentials. <i>Journal of Modern Optics</i> , 2016 , 63, 1805-1813	1.1	3
86	Chapter 1 Laser Cooling of Dense Gases by Collisional Redistribution of Radiation 2016 , 1-36		
85	Calorimetry of a Bose-Einstein-condensed photon gas. <i>Nature Communications</i> , 2016 , 7, 11340	17.4	19
84	Experimental control of transport resonances in a coherent quantum rocking ratchet. <i>Nature Communications</i> , 2016 , 7, 10440	17.4	29
83	Real-space imaging of a topologically protected edge state with ultracold atoms in an amplitude-chirped optical lattice. <i>Nature Communications</i> , 2016 , 7, 13112	17.4	56
82	Absorption spectroscopy of xenon and ethylene noble gas mixtures at high pressure: towards Bose-Einstein condensation of vacuum ultraviolet photons. <i>Applied Physics B: Lasers and Optics</i> , 2016 , 122, 1	1.9	1
81	Thermalization kinetics of light: From laser dynamics to equilibrium condensation of photons. <i>Physical Review A</i> , 2015 , 92,	2.6	52
80	Resonance retrieval of stored coherence in an rf-optical double-resonance experiment. <i>Physical Review A</i> , 2015 , 92,	2.6	2
79	Veselago lensing with ultracold atoms in an optical lattice. <i>Nature Communications</i> , 2014 , 5, 3327	17.4	9
78	Observation of grand-canonical number statistics in a photon Bose-Einstein condensate. <i>Physical Review Letters</i> , 2014 , 112, 030401	7.4	76
77	Kennard-Stepanov relation connecting absorption and emission spectra in an atomic gas. <i>Physical Review Letters</i> , 2014 , 113, 063002	7.4	13
76	Tuning the mobility of a driven Bose-Einstein condensate via diabatic Floquet bands. <i>Physical Review Letters</i> , 2013 , 110, 135302	7.4	21
75	Optomechanical generation of a photonic Bose-Einstein condensate. <i>Physical Review A</i> , 2013 , 88,	2.6	11
74	Bose-Einstein condensation of photons in a microscopic optical resonator: towards photonic lattices and coupled cavities 2013 ,		10
73	Doppler-free frequency-modulation spectroscopy of atomic erbium in a hollow-cathode discharge cell. <i>Applied Physics B: Lasers and Optics</i> , 2012 , 106, 405-408	1.9	7
72	Statistical physics of Bose-Einstein-condensed light in a dye microcavity. <i>Physical Review Letters</i> , 2012 , 108, 160403	7.4	62
71	Thermalization of a two-dimensional photon gas in a polymeric host matrix. <i>New Journal of Physics</i> , 2012 , 14, 075019	2.9	5
70	Laser cooling of dense rubidium-noble gas mixtures via collisional redistribution of radiation 2012 ,		1

69	Light confinement by a cylindrical metallic waveguide in a dense buffer-gas environment. <i>Physical Review A</i> , 2011 , 83,	2.6	8
68	Bose-Einstein condensation of photons in a 'white-wall' photon box. <i>Journal of Physics: Conference Series</i> , 2011 , 264, 012005	0.3	
67	Laser cooling of a potassium-argon gas mixture using collisional redistribution of radiation. <i>Applied Physics B: Lasers and Optics</i> , 2011 , 102, 503-507	1.9	6
66	Bose-Einstein condensation of paraxial light. <i>Applied Physics B: Lasers and Optics</i> , 2011 , 105, 17-33	1.9	41
65	Bose-Einstein-Kondensat aus Licht. <i>Physik in Unserer Zeit</i> , 2011 , 42, 58-59	0.1	2
64	Cooled by Light. <i>German Research</i> , 2011 , 33, 19-21	0.1	1
63	Collisional redistribution laser cooling of a high-pressure atomic gas. <i>Journal of Modern Optics</i> , 2011 , 58, 1300-1309	1.1	13
62	Klein tunneling of a quasirelativistic Bose-Einstein condensate in an optical lattice. <i>Physical Review Letters</i> , 2011 , 107, 240401	7.4	57
61	Bose-Einstein condensation of photons in an optical microcavity. <i>Nature</i> , 2010 , 468, 545-8	50.4	437
60	Thermalization of a two-dimensional photonic gas in a 'white wall' photon box. <i>Nature Physics</i> , 2010 , 6, 512-515	16.2	113
59	Atomic Bloch-Zener oscillations and Stukelberg interferometry in optical lattices. <i>Physical Review Letters</i> , 2010 , 105, 215301	7.4	74
58	Nondispersive optics using storage of light. <i>Physical Review A</i> , 2010 , 81,	2.6	4
57	Vom Licht gekult. <i>Forschung</i> , 2010 , 35, 23-25	0	
56	Quantenratsche fur ultrakalte Atome. <i>Physik in Unserer Zeit</i> , 2010 , 41, 110-111	0.1	
55	Atomic Bose-Einstein Condensates in Optical Lattices with Variable Spatial Symmetry. <i>Springer Series in Optical Sciences</i> , 2010 , 195-203	0.5	
54	Bloch oscillations of a Bose-Einstein condensate in a subwavelength optical lattice. <i>Physical Review A</i> , 2009 , 79,	2.6	14
53	Frequency matching in light-storage spectroscopy of atomic Raman transitions. <i>Physical Review Letters</i> , 2009 , 103, 093601	7.4	20
52	Atom-Based Test of the Equivalence Principle. <i>Space Science Reviews</i> , 2009 , 148, 225-232	7.5	6

51	Laser cooling by collisional redistribution of radiation. <i>Nature</i> , 2009 , 461, 70-3	50.4	43
50	Directed transport of atoms in a Hamiltonian quantum ratchet. <i>Science</i> , 2009 , 326, 1241-3	33.3	173
49	Atom-Based Test of the Equivalence Principle. <i>Space Sciences Series of ISSI</i> , 2009 , 277-284	0.1	
48	Slow light in inhomogeneous and transverse fields. <i>New Journal of Physics</i> , 2008 , 10, 045015	2.9	7
47	Resonance beating of light stored using atomic spinor polaritons. <i>Physical Review Letters</i> , 2008 , 101, 170406	7.4	56
46	Spectroscopy of atomic rubidium at 500Bar buffer gas pressure: Approaching the thermal equilibrium of dressed atom-light states. <i>Physical Review A</i> , 2008 , 78,	2.6	15
45	Interference of an array of atom lasers. <i>Physical Review A</i> , 2008 , 77,	2.6	2
44	Atomic Landau-Zener tunneling in Fourier-synthesized optical lattices. <i>Physical Review Letters</i> , 2007 , 99, 190405	7.4	108
43	Fourier synthesis of optical potentials for atomic quantum gases. <i>Physical Review A</i> , 2006 , 74,	2.6	78
42	A SternGerlach experiment for slow light. <i>Nature Physics</i> , 2006 , 2, 332-335	16.2	67
41	Äquivalenzprinzip gilt auch für Quantenobjekte. <i>Physik in Unserer Zeit</i> , 2005 , 36, 60-60	0.1	
40	Interference of a variable number of coherent atomic sources. <i>Physical Review A</i> , 2005 , 72,	2.6	15
39	Dark resonances with variable Doppler sensitivity. <i>Physical Review A</i> , 2005 , 71,	2.6	9
38	Optical multiphoton lattices. <i>Physical Review A</i> , 2004 , 70,	2.6	20
37	Atomic interferometer with amplitude gratings of light and its applications to atom based tests of the equivalence principle. <i>Physical Review Letters</i> , 2004 , 93, 240404	7.4	181
36	Laser frequency offset locking using a side of filter technique. <i>Applied Physics B: Lasers and Optics</i> , 2004 , 79, 363-365	1.9	24
35	BoseEinstein condensation in a CO2-laser optical dipole trap. <i>Applied Physics B: Lasers and Optics</i> , 2003 , 77, 773-779	1.9	22
34	All-optical realization of an atom laser. <i>Physical Review Letters</i> , 2003 , 91, 240408	7.4	66

33	Hydrogen atom interferometer with short light pulses. <i>Europhysics Letters</i> , 2002 , 57, 158-163	1.6	9
32	Multiple-Beam Atom Interferometry: An Overview 2002 , 141-151		
31	Multiple-beam Ramsey interference and quantum decoherence. <i>Applied Physics B: Lasers and Optics</i> , 2001 , 72, 91-99	1.9	8
30	Superresolution of pulsed multiphoton Raman transitions. <i>Physical Review Letters</i> , 2001 , 87, 113601	7.4	18
29	Controlled decoherence in multiple beam Ramsey interference. <i>Physical Review Letters</i> , 2001 , 86, 559-637.4	7.4	27
28	Measuring the Frequency of Light with Mode-Locked Lasers 2001 , 275-294		1
27	An optical lattice with single lattice site optical control for quantum engineering. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2000 , 2, 645-650		6
26	Frequency-independent laser cooling based on interferometry. <i>Europhysics Letters</i> , 2000 , 49, 302-308	1.6	9
25	Phase coherent vacuum-ultraviolet to radio frequency comparison with a mode-locked laser. <i>Physical Review Letters</i> , 2000 , 84, 3232-5	7.4	169
24	Measurement of the hydrogen 1S- 2S transition frequency by phase coherent comparison with a microwave cesium fountain clock. <i>Physical Review Letters</i> , 2000 , 84, 5496-9	7.4	494
23	High-resolution spectroscopy of the 1S Σ S transition in atomic hydrogen. <i>Physical Review A</i> , 1999 , 59, 1844-1851	2.6	61
22	Hydrogen-Deuterium 1S Σ S Isotope Shift and the Structure of the Deuteron. <i>Physical Review Letters</i> , 1998 , 80, 468-471	7.4	172
21	Optical Ramsey spectroscopy of atomic hydrogen. <i>Europhysics Letters</i> , 1998 , 44, 186-191	1.6	9
20	CO ₂ -laser optical lattice with cold rubidium atoms. <i>Physical Review A</i> , 1998 , 57, R20-R23	2.6	169
19	Two-photon optical Ramsey spectroscopy of the 1S Σ S transition in atomic hydrogen. <i>Physical Review A</i> , 1998 , 58, R2631-R2634	2.6	11
18	Collapse and revival of the fringe pattern in a multiple-beam atom interferometer. <i>Europhysics Letters</i> , 1997 , 37, 517-522	1.6	11
17	Phase-Coherent Measurement of the Hydrogen 1S Σ S Transition Frequency with an Optical Frequency Interval Divider Chain. <i>Physical Review Letters</i> , 1997 , 79, 2646-2649	7.4	292
16	Vielstrahl-Atominterferometer. <i>Physik Journal</i> , 1997 , 53, 883-885		

15	Phase-coherent light pulses for atom optics and interferometry. <i>Optics Letters</i> , 1997 , 22, 1719-21	3	14
14	Phase-coherent measurement of the hydrogen 1S-2S frequency with an optical frequency interval divider chain. <i>IEEE Transactions on Instrumentation and Measurement</i> , 1997 , 46, 166-168	5.2	3
13	Cavity enhanced cw stimulated Brillouin scattering in a fused silica plate. <i>Optics Communications</i> , 1997 , 140, 281-284	2	4
12	Theory of the energy levels and precise two-photon spectroscopy of atomic hydrogen and deuterium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1996 , 29, 177-195	1.3	90
11	Multiple Beam Atomic Interferometer. <i>Physical Review Letters</i> , 1996 , 77, 2356-2359	7.4	60
10	High-resolution spectroscopy of the 1S-2S transition of atomic hydrogen and deuterium. <i>Physical Review A</i> , 1995 , 51, 2789-2800	2.6	65
9	Precision measurement of the 1S ground-state Lamb shift in atomic hydrogen and deuterium by frequency comparison. <i>Physical Review A</i> , 1995 , 52, 2664-2681	2.6	77
8	Atomic interferometer based on adiabatic population transfer. <i>Physical Review Letters</i> , 1994 , 73, 2563-2566	7.4	169
7	Precision measurement of the hydrogen and deuterium 1 S ground state Lamb shift. <i>Physical Review Letters</i> , 1994 , 72, 328-331	7.4	97
6	Theory of the hydrogen-deuterium isotope shift. <i>Physical Review A</i> , 1994 , 49, 2255-2259	2.6	44
5	Atom manipulation based on delayed laser pulses in three- and four-level systems: Light shifts and transfer efficiencies. <i>Physical Review A</i> , 1994 , 50, 2438-2444	2.6	65
4	Precision measurement of the isotope shift of the 1S-2S transition of atomic hydrogen and deuterium. <i>Physical Review Letters</i> , 1993 , 70, 2261-2264	7.4	64
3	Precise optical Lamb shift measurements in atomic hydrogen. <i>Physical Review Letters</i> , 1992 , 68, 1120-1123	7.4	64
2	High power ultraviolet source with extreme frequency stability. <i>Optics Communications</i> , 1991 , 81, 63-66	2	6
1	Two-dimensional Bose-Einstein Condensates in a CO ₂ -laser Optical Lattice	145-153	