

Jörg Schmiedmayer

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1340819/publications.pdf>

Version: 2024-02-01

288
papers

18,455
citations

10986

71
h-index

13771

129
g-index

296
all docs

296
docs citations

296
times ranked

8466
citing authors

#	ARTICLE	IF	CITATIONS
1	Optics and interferometry with atoms and molecules. <i>Reviews of Modern Physics</i> , 2009, 81, 1051-1129.	45.6	1,098
2	Relaxation and Prethermalization in an Isolated Quantum System. <i>Science</i> , 2012, 337, 1318-1322.	12.6	783
3	Matter-wave interferometry in a double well on an atom chip. <i>Nature Physics</i> , 2005, 1, 57-62.	16.7	661
4	Non-equilibrium coherence dynamics in one-dimensional Bose gases. <i>Nature</i> , 2007, 449, 324-327.	27.8	621
5	Quantum technologies with hybrid systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 3866-3873.	7.1	568
6	Microscopic Atom Optics: From Wires to an Atom Chip. <i>Advances in Atomic, Molecular and Optical Physics</i> , 2002, , 263-356.	2.3	553
7	Near-field imaging of atom diffraction gratings: The atomic Talbot effect. <i>Physical Review A</i> , 1995, 51, R14-R17.	2.5	506
8	Experimental observation of a generalized Gibbs ensemble. <i>Science</i> , 2015, 348, 207-211.	12.6	439
9	Experimental demonstration of a BDCZ quantum repeater node. <i>Nature</i> , 2008, 454, 1098-1101.	27.8	372
10	Local emergence of thermal correlations in an isolated quantum many-body system. <i>Nature Physics</i> , 2013, 9, 640-643.	16.7	335
11	Controlling Cold Atoms using Nanofabricated Surfaces: Atom Chips. <i>Physical Review Letters</i> , 2000, 84, 4749-4752.	7.8	332
12	Cavity QED with Magnetically Coupled Collective Spin States. <i>Physical Review Letters</i> , 2011, 107, 060502.	7.8	275
13	Ultracold Atoms Out of Equilibrium. <i>Annual Review of Condensed Matter Physics</i> , 2015, 6, 201-217.	14.5	228
14	Photon Scattering from Atoms in an Atom Interferometer: Coherence Lost and Regained. <i>Physical Review Letters</i> , 1995, 75, 3783-3787.	7.8	218
15	A millisecond quantum memory for scalable quantum networks. <i>Nature Physics</i> , 2009, 5, 95-99.	16.7	217
16	Measurement of the electric polarizability of sodium with an atom interferometer. <i>Physical Review A</i> , 1995, 51, 3883-3888.	2.5	216
17	Strong Magnetic Coupling of an Ultracold Gas to a Superconducting Waveguide Cavity. <i>Physical Review Letters</i> , 2009, 103, 043603.	7.8	212
18	Probing quantum and thermal noise in an interacting many-body system. <i>Nature Physics</i> , 2008, 4, 489-495.	16.7	211

#	ARTICLE	IF	CITATIONS
19	Integrated Mach-Zehnder interferometer for Bose-Einstein condensates. Nature Communications, 2013, 4, 2077.	12.8	204
20	Quantum gates with neutral atoms: Controlling collisional interactions in time-dependent traps. Physical Review A, 2000, 61, .	2.5	190
21	Robust Creation of Entanglement between Remote Memory Qubits. Physical Review Letters, 2007, 98, 240502.	7.8	179
22	Atom Wave Interferometry with Diffraction Gratings of Light. Physical Review Letters, 1995, 75, 2633-2637.	7.8	178
23	Experimental quantum teleportation of a two-qubit composite system. Nature Physics, 2006, 2, 678-682.	16.7	174
24	Beam Splitter for Guided Atoms. Physical Review Letters, 2000, 85, 5483-5487.	7.8	173
25	Guiding Neutral Atoms with a Wire. Physical Review Letters, 1999, 82, 2014-2017.	7.8	170
26	Memory-built-in quantum teleportation with photonic and atomic qubits. Nature Physics, 2008, 4, 103-107.	16.7	170
27	Radiofrequency-dressed-state potentials for neutral atoms. Nature Physics, 2006, 2, 710-716.	16.7	164
28	Prethermalization and universal dynamics in near-integrable quantum systems. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 064009.	2.3	162
29	Experimental characterization of a quantum many-body system via higher-order correlations. Nature, 2017, 545, 323-326.	27.8	161
30	Twin-atom beams. Nature Physics, 2011, 7, 608-611.	16.7	155
31	Universal dynamics in an isolated one-dimensional Bose gas far from equilibrium. Nature, 2018, 563, 225-229.	27.8	149
32	Measurement of the electric polarizability of the neutron. Physical Review Letters, 1991, 66, 1015-1018.	7.8	137
33	Optics and Interferometry with Na ₂ Molecules. Physical Review Letters, 1995, 74, 4783-4786.	7.8	137
34	Microscopic magnetic-field imaging. Nature, 2005, 435, 440-440.	27.8	129
35	Reversible state transfer between superconducting qubits and atomic ensembles. Physical Review A, 2009, 79, .	2.5	128
36	Deterministic and Storable Single-Photon Source Based on a Quantum Memory. Physical Review Letters, 2006, 97, 173004.	7.8	127

#	ARTICLE	IF	CITATIONS
37	Adiabatic radio-frequency potentials for the coherent manipulation of matter waves. <i>Physical Review A</i> , 2006, 73, .	2.5	124
38	Multimode Interferometer for Guided Matter Waves. <i>Physical Review Letters</i> , 2002, 88, 100401.	7.8	122
39	Atom Waves in Crystals of Light. <i>Physical Review Letters</i> , 1996, 77, 4980-4983.	7.8	121
40	Protecting a spin ensemble against decoherence in the strong-coupling regime of cavity QED. <i>Nature Physics</i> , 2014, 10, 720-724.	16.7	118
41	Uncover Topology by Quantum Quench Dynamics. <i>Physical Review Letters</i> , 2018, 121, 250403.	7.8	114
42	The dynamics and prethermalization of one-dimensional quantum systems probed through the full distributions of quantum noise. <i>New Journal of Physics</i> , 2011, 13, 073018.	2.9	109
43	Fault-tolerant quantum repeater with atomic ensembles and linear optics. <i>Physical Review A</i> , 2007, 76, .	2.5	108
44	Demonstration of a Stable Atom-Photon Entanglement Source for Quantum Repeaters. <i>Physical Review Letters</i> , 2007, 99, 180505.	7.8	108
45	Photonic Architecture for Scalable Quantum Information Processing in Diamond. <i>Physical Review X</i> , 2014, 4, .	8.9	108
46	Superradiant emission from colour centres in diamond. <i>Nature Physics</i> , 2018, 14, 1168-1172.	16.7	106
47	Optimal control of complex atomic quantum systems. <i>Scientific Reports</i> , 2016, 6, 34187.	3.3	105
48	Multistage Entanglement Swapping. <i>Physical Review Letters</i> , 2008, 101, 080403.	7.8	101
49	Inertial sensing with classical atomic beams. <i>Physical Review A</i> , 1996, 54, 3165-3176.	2.5	100
50	Optimal quantum control of Bose-Einstein condensates in magnetic microtraps. <i>Physical Review A</i> , 2007, 75, .	2.5	96
51	Index of Refraction of Various Gases for Sodium Matter Waves. <i>Physical Review Letters</i> , 1995, 74, 1043-1047.	7.8	94
52	Probing a Singular Potential with Cold Atoms: A Neutral Atom and a Charged Wire. <i>Physical Review Letters</i> , 1998, 81, 737-741.	7.8	91
53	Breakdown of Integrability in a Quasi-1D Ultracold Bosonic Gas. <i>Physical Review Letters</i> , 2008, 100, 210403.	7.8	91
54	Implementation of the Dicke Lattice Model in Hybrid Quantum System Arrays. <i>Physical Review Letters</i> , 2014, 113, 023603.	7.8	89

#	ARTICLE	IF	CITATIONS
55	Guiding and trapping a neutral atom on a wire. <i>Physical Review A</i> , 1995, 52, R13-R16.	2.5	88
56	Single-particle-sensitive imaging of freely propagating ultracold atoms. <i>New Journal of Physics</i> , 2009, 11, 103039.	2.9	88
57	Ultracold Atoms in Optical Lattices with Random On-Site Interactions. <i>Physical Review Letters</i> , 2005, 95, 170401.	7.8	87
58	Atom chips: Fabrication and thermal properties. <i>Applied Physics Letters</i> , 2004, 85, 2980-2982.	3.3	86
59	Optimizing number squeezing when splitting a mesoscopic condensate. <i>Physical Review A</i> , 2009, 79, .	2.5	84
60	Two-point density correlations of quasicondensates in free expansion. <i>Physical Review A</i> , 2010, 81, .	2.5	84
61	Possibility of single-atom detection on a chip. <i>Physical Review A</i> , 2003, 67, .	2.5	83
62	Density ripples in expanding low-dimensional gases as a probe of correlations. <i>Physical Review A</i> , 2009, 80, .	2.5	83
63	Bose-Einstein condensation in a simple microtrap. <i>Physical Review A</i> , 2003, 67, .	2.5	80
64	Interferometry with non-classical motional states of a Bose-Einstein condensate. <i>Nature Communications</i> , 2014, 5, 4009.	12.8	80
65	Tailored Complex Potentials and Friedel's Law in Atom Optics. <i>Physical Review Letters</i> , 1997, 79, 3327-3330.	7.8	79
66	Sensing electric and magnetic fields with Bose-Einstein condensates. <i>Applied Physics Letters</i> , 2006, 88, 264103.	3.3	79
67	Two-Point Phase Correlations of a One-Dimensional Bosonic Josephson Junction. <i>Physical Review Letters</i> , 2011, 106, 020407.	7.8	78
68	Ramsey's method of separated oscillating fields and its application to gravitationally induced quantum phase shifts. <i>Physical Review D</i> , 2010, 81, .	4.7	77
69	Macroscopic Quantum Resonators (MAQRO): 2015 update. <i>EPJ Quantum Technology</i> , 2016, 3, .	6.3	77
70	Recurrences in an isolated quantum many-body system. <i>Science</i> , 2018, 360, 307-310.	12.6	76
71	Trapping and Manipulating Neutral Atoms with Electrostatic Fields. <i>Physical Review Letters</i> , 2003, 91, 233201.	7.8	74
72	Constraint on hypothetical light interacting bosons from low-energy neutron experiments. <i>Physical Review Letters</i> , 1992, 68, 1472-1475.	7.8	71

#	ARTICLE	IF	CITATIONS
73	Prethermalization revealed by the relaxation dynamics of full distribution functions. <i>New Journal of Physics</i> , 2013, 15, 075011.	2.9	69
74	Relaxation to a Phase-Locked Equilibrium State in a One-Dimensional Bosonic Josephson Junction. <i>Physical Review Letters</i> , 2018, 120, 173601.	7.8	68
75	Inclusive properties of D mesons produced in 360 GeV interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1985, 161, 400-406.	4.1	67
76	Long-Range Order in Electronic Transport Through Disordered Metal Films. <i>Science</i> , 2008, 319, 1226-1229.	12.6	67
77	Fundamental limits for coherent manipulation on atom chips. <i>Applied Physics B: Lasers and Optics</i> , 2003, 76, 173-182.	2.2	66
78	Optimized magneto-optical trap for experiments with ultracold atoms near surfaces. <i>Physical Review A</i> , 2004, 69, .	2.5	66
79	Hanbury Brown and Twiss correlations across the Bose-Einstein condensation threshold. <i>Nature Physics</i> , 2012, 8, 195-198.	16.7	66
80	Strong magnetic coupling of an inhomogeneous nitrogen-vacancy ensemble to a cavity. <i>Physical Review A</i> , 2012, 85, .	2.5	63
81	Ultracold atoms in radio-frequency dressed potentials beyond the rotating-wave approximation. <i>Physical Review A</i> , 2007, 76, .	2.5	62
82	Optimal control of number squeezing in trapped Bose-Einstein condensates. <i>Physical Review A</i> , 2009, 80, .	2.5	60
83	Atom interferometry with trapped Bose-Einstein condensates: impact of atom-atom interactions. <i>New Journal of Physics</i> , 2010, 12, 065036.	2.9	60
84	A neutral atom and a wire: towards mesoscopic atom optics. <i>Applied Physics B: Lasers and Optics</i> , 1999, 69, 291-301.	2.2	59
85	Photonic Quantum Networks formed from NV ⁰ centers. <i>Scientific Reports</i> , 2016, 6, 26284.	3.3	59
86	Adiabatic following in standing-wave diffraction of atoms. <i>Applied Physics B: Lasers and Optics</i> , 1999, 69, 303-309.	2.2	58
87	Cavity QED with an ultracold ensemble on a chip: Prospects for strong magnetic coupling at finite temperatures. <i>Physical Review A</i> , 2010, 82, .	2.5	58
88	Local relaxation and light-cone-like propagation of correlations in a trapped one-dimensional Bose gas. <i>New Journal of Physics</i> , 2014, 16, 053034.	2.9	57
89	Smooth Optimal Quantum Control for Robust Solid-State Spin Magnetometry. <i>Physical Review Letters</i> , 2015, 115, 190801.	7.8	57
90	Quantum wires and quantum dots for neutral atoms. <i>European Physical Journal D</i> , 1998, 4, 57-62.	1.3	56

#	ARTICLE	IF	CITATIONS
91	Synchronized Independent Narrow-Band Single Photons and Efficient Generation of Photonic Entanglement. <i>Physical Review Letters</i> , 2007, 98, 180503.	7.8	56
92	Ramsey Interference in One-Dimensional Systems: The Full Distribution Function of Fringe Contrast as a Probe of Many-Body Dynamics. <i>Physical Review Letters</i> , 2010, 104, 255302.	7.8	56
93	Weakly Interacting Bose Gas in the One-Dimensional Limit. <i>Physical Review Letters</i> , 2010, 105, 265302.	7.8	55
94	Vibrational state inversion of a Bose-Einstein condensate: optimal control and state tomography. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 104012.	1.5	54
95	Manipulation of ultracold atoms in dressed adiabatic radio-frequency potentials. <i>Physical Review A</i> , 2006, 74, .	2.5	53
96	Coherent Coupling of Remote Spin Ensembles via a Cavity Bus. <i>Physical Review Letters</i> , 2017, 118, 140502.	7.8	53
97	Solid-state electron spin lifetime limited by phononic vacuum modes. <i>Nature Materials</i> , 2018, 17, 313-317.	27.5	53
98	Thermalization in a quasi-one-dimensional ultracold bosonic gas. <i>New Journal of Physics</i> , 2010, 12, 055023.	2.9	52
99	Multimode Dynamics and Emergence of a Characteristic Length Scale in a One-Dimensional Quantum System. <i>Physical Review Letters</i> , 2013, 110, 090405.	7.8	51
100	Nanometer definition of atomic beams with masks of light. <i>Physical Review A</i> , 1997, 56, R4365-R4368.	2.5	49
101	Quasicondensate growth on an atom chip. <i>Physical Review A</i> , 2006, 73, .	2.5	48
102	Non-equilibrium scale invariance and shortcuts to adiabaticity in a one-dimensional Bose gas. <i>Scientific Reports</i> , 2015, 5, 9820.	3.3	48
103	Cooling of a One-Dimensional Bose Gas. <i>Physical Review Letters</i> , 2016, 116, 030402.	7.8	48
104	Coherent Frequency Shift of Atomic Matter Waves. <i>Physical Review Letters</i> , 1996, 77, 5160-5163.	7.8	47
105	Collisional decoherence during writing and reading quantum states. <i>Physical Review A</i> , 2007, 75, .	2.5	47
106	A wire trap for neutral atoms. <i>Applied Physics B: Lasers and Optics</i> , 1995, 60, 169-179.	2.2	46
107	Potential roughness near lithographically fabricated atom chips. <i>Physical Review A</i> , 2007, 76, .	2.5	46
108	Micromanipulation of neutral atoms with nanofabricated structures. <i>Applied Physics B: Lasers and Optics</i> , 2000, 70, 721-730.	2.2	44

#	ARTICLE	IF	CITATIONS
109	Multilayer atom chips for versatile atom micromanipulation. Applied Physics Letters, 2008, 92, .	3.3	43
110	Spectral hole burning and its application in microwave photonics. Nature Photonics, 2017, 11, 36-39.	31.4	43
111	Designing arbitrary one-dimensional potentials on an atom chip. Optics Express, 2019, 27, 33474.	3.4	43
112	Theoretical analysis of a realistic atom-chip quantum gate. Physical Review A, 2006, 74, .	2.5	42
113	Fluctuations and Stochastic Processes in One-Dimensional Many-Body Quantum Systems. Physical Review Letters, 2010, 105, 015301.	7.8	42
114	Extension of the Generalized Hydrodynamics to the Dimensional Crossover Regime. Physical Review Letters, 2021, 126, 090602.	7.8	40
115	rf-field-induced Feshbach resonances. Physical Review A, 2010, 81, .	2.5	39
116	Measurement of the Electric Polarizability of the Neutron. Physical Review Letters, 1988, 61, 1065-1068.	7.8	38
117	Prethermalization in one-dimensional Bose gases: Description by a stochastic Ornstein-Uhlenbeck process. European Physical Journal: Special Topics, 2013, 217, 43-53.	2.6	37
118	Interferometric Unruh Detectors for Bose-Einstein Condensates. Physical Review Letters, 2020, 125, 213603.	7.8	37
119	Detecting magnetically guided atoms with an optical cavity. Optics Letters, 2006, 31, 268.	3.3	36
120	Absorption imaging of ultracold atoms on atom chips. Optics Express, 2011, 19, 8471.	3.4	36
121	Dynamical diffraction of atomic matter waves by crystals of light. Physical Review A, 1999, 60, 456-472.	2.5	35
122	Quantum scattering in quasi-one-dimensional cylindrical confinement. Physical Review A, 2005, 72, .	2.5	34
123	Shortcut loading a Bose-Einstein condensate into an optical lattice. New Journal of Physics, 2018, 20, 055005.	2.9	34
124	Extracting the Field Theory Description of a Quantum Many-Body System from Experimental Data. Physical Review X, 2020, 10, .	8.9	34
125	Scattering a neutral atom from a charged wire. Europhysics Letters, 1997, 38, 405-410.	2.0	33
126	Quantum information processing with neutral atoms on an atom chip. Journal of Modern Optics, 2002, 49, 1375-1388.	1.3	31

#	ARTICLE	IF	CITATIONS
127	Ultralong relaxation times in bistable hybrid quantum systems. <i>Science Advances</i> , 2017, 3, e1701626.	10.3	31
128	The equivalence of the gravitational and inertial mass of the neutron. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1989, 284, 59-62.	1.6	30
129	Quantum Field Thermal Machines. <i>PRX Quantum</i> , 2021, 2, .	9.2	29
130	Mach-Zehnder interferometry with interacting trapped Bose-Einstein condensates. <i>Physical Review A</i> , 2011, 84, .	2.5	28
131	Introducing iFluid: a numerical framework for solving hydrodynamical equations in integrable models. <i>SciPost Physics</i> , 2020, 8, .	4.9	28
132	D correlations in 360 GeV/c \bar{p} interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1985, 164, 404-409.	4.1	27
133	Neutral d-meson properties in 360 GeV/c \bar{p} interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1984, 146, 266-272.	4.1	26
134	The Shapiro effect in atomchip-based bosonic Josephson junctions. <i>New Journal of Physics</i> , 2011, 13, 065026.	2.9	26
135	Ramsey interferometry with trapped motional quantum states. <i>Communications Physics</i> , 2018, 1, .	5.3	26
136	Decay and recurrence of non-Gaussian correlations in a quantum many-body system. <i>Nature Physics</i> , 2021, 17, 559-563.	16.7	26
137	Stochastic optimization of a cold atom experiment using a genetic algorithm. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	25
138	A single-atom detector integrated on an atom chip: fabrication, characterization and application. <i>New Journal of Physics</i> , 2010, 12, 095005.	2.9	25
139	Arrays of open, independently tunable microcavities. <i>Optics Express</i> , 2014, 22, 22111.	3.4	24
140	Magnetic conveyor belt transport of ultracold atoms to a superconducting atomchip. <i>Applied Physics B: Lasers and Optics</i> , 2014, 116, 1017-1021.	2.2	24
141	Quantum Memory with Optically Trapped Atoms. <i>Physical Review Letters</i> , 2008, 101, 120501.	7.8	23
142	Controlling quantum information processing in hybrid systems on chips. <i>Quantum Information Processing</i> , 2011, 10, 1037-1060.	2.2	23
143	Dephasing in coherently split quasicondensates. <i>Physical Review A</i> , 2011, 83, .	2.5	23
144	Scalable spin-photon entanglement by time-to-polarization conversion. <i>Npj Quantum Information</i> , 2020, 6, .	6.7	23

#	ARTICLE	IF	CITATIONS
145	Simple integrated single-atom detector. <i>Optics Letters</i> , 2009, 34, 259.	3.3	22
146	Degenerate Bose gases with uniform loss. <i>Physical Review A</i> , 2016, 93, .	2.5	22
147	Relaxation, chaos, and thermalization in a three-mode model of a Bose-Einstein condensate. <i>New Journal of Physics</i> , 2018, 20, 113039.	2.9	22
148	A simple quantum gate with atom chips. <i>European Physical Journal D</i> , 2005, 35, 165-171.	1.3	21
149	Relevance of sub-surface chip layers for the lifetime of magnetically trapped atoms. <i>European Physical Journal D</i> , 2005, 35, 97-104.	1.3	21
150	Two-Particle Interference with Double Twin-Atom Beams. <i>Physical Review Letters</i> , 2021, 126, 083603.	7.8	21
151	Towards experimental quantum-field tomography with ultracold atoms. <i>Nature Communications</i> , 2015, 6, 7663.	12.8	20
152	Analytical pendulum model for a bosonic Josephson junction. <i>Physical Review A</i> , 2018, 98, .	2.5	20
153	Ulrich and analogue Ulrich temperatures for circular motion in $\langle \text{mml:math display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 1 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 1 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math display="inline"} \rangle$ dimensions. <i>Physical Review D</i> , 2020, 102, .	4.7	20
154	Magnetic coherences in atom interferometry. <i>Journal De Physique II</i> , 1994, 4, 2029-2042.	0.9	20
155	Projective phase measurements in one-dimensional Bose gases. , 2018, 5, .		20
156	Euler-scale dynamical correlations in integrable systems with fluid motion. <i>SciPost Physics Core</i> , 2020, 3, .	2.8	20
157	Atom interferometry. , 1993, , 21-35.		19
158	Matter waves in time-modulated complex light potentials. <i>Physical Review A</i> , 2000, 62, .	2.5	19
159	Trapping neutral atoms with a wire. <i>Physical Review A</i> , 2001, 64, .	2.5	19
160	Characterizing twin-particle entanglement in double-well potentials. <i>Physical Review A</i> , 2018, 98, .	2.5	19
161	Relaxation of bosons in one dimension and the onset of dimensional crossover. <i>SciPost Physics</i> , 2020, 9, .	4.9	19
162	Trapping polar molecules with a charged wire. <i>Europhysics Letters</i> , 1996, 36, 407-412.	2.0	18

#	ARTICLE	IF	CITATIONS
163	A Bose-Einstein condensate in a microtrap. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, S143-S149.	1.4	18
164	High-fidelity entanglement via molecular dissociation in integrated atom optics. Physical Review A, 2007, 75, .	2.5	18
165	Optimizing inhomogeneous spin ensembles for quantum memory. Physical Review A, 2012, 86, .	2.5	18
166	Ergodic-Localized Junctions in a Periodically Driven Spin Chain. Physical Review Letters, 2020, 125, 170503.	7.8	18
167	Integrated atom detector: Single atoms and photon statistics. Physical Review A, 2009, 79, .	2.5	17
168	Optical lattice on an atom chip. Optics Letters, 2009, 34, 3463.	3.3	17
169	Chiral Prethermalization in Supersonically Split Condensates. Physical Review Letters, 2014, 113, 190401.	7.8	17
170	Fabrication of alignment structures for a fiber resonator by use of deep-ultraviolet lithography. Applied Optics, 2005, 44, 6857.	2.1	16
171	High-fidelity spin measurement on the nitrogen-vacancy center. New Journal of Physics, 2017, 19, 103002.	2.9	16
172	Ab initio calculation of the spin lattice relaxation time T_1 for nitrogen-vacancy centers in diamond. Physical Review B, 2018, 98, .	3.0	16
173	Modulation of atomic de Broglie waves using Bragg diffraction. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1996, 8, 497-509.	0.9	15
174	Optics and Interferometry with Atoms and Molecules. , 1997, , 1-83.		15
175	Rydberg atoms in a magnetic guide. Physical Review A, 2004, 70, .	2.5	15
176	Matter-wave recombiners for trapped Bose-Einstein condensates. Physical Review A, 2016, 93, .	2.5	15
177	Josephson oscillations in split one-dimensional Bose gases. SciPost Physics, 2021, 10, .	4.9	15
178	Requirements for coherent atom channeling. Optics Communications, 2000, 179, 129-135.	2.1	14
179	Rydberg atoms in magnetic quadrupole traps. Europhysics Letters, 2004, 65, 478-484.	2.0	14
180	Model for organized current patterns in disordered conductors. Physical Review B, 2008, 77, .	3.2	14

#	ARTICLE	IF	CITATIONS
181	Dephasing in two decoupled one-dimensional Bose-Einstein condensates and the subexponential decay of the interwell coherence. <i>European Physical Journal B</i> , 2009, 68, 335-339.	1.5	14
182	Dynamics of parametric matter-wave amplification. <i>Physical Review A</i> , 2012, 86, .	2.5	14
183	Cold Atom Cosmology. <i>Science</i> , 2013, 341, 1188-1189.	12.6	14
184	Double light-cone dynamics establish thermal states in integrable 1D Bose gases. <i>New Journal of Physics</i> , 2018, 20, 023034.	2.9	14
185	Atom fiber for omnidirectional guiding of cold neutral atoms. <i>Optics Letters</i> , 2004, 29, 2145.	3.3	13
186	Cold atoms close to surfaces: measuring magnetic field roughness and disorder potentials. <i>Journal of Physics: Conference Series</i> , 2005, 19, 56-65.	0.4	13
187	A Double Well Interferometer on an Atom Chip. <i>Quantum Information Processing</i> , 2006, 5, 537-558.	2.2	13
188	Deterministic and efficient quantum cryptography based on Bell's theorem. <i>Physical Review A</i> , 2006, 73, .	2.5	13
189	Single spontaneous photon as a coherent beamsplitter for an atomic matter-wave. <i>Nature Physics</i> , 2011, 7, 379-382.	16.7	13
190	Nanofabricated atom optics: Atom chips. <i>Journal of Modern Optics</i> , 2000, 47, 2789-2809.	1.3	12
191	From the moving piston to the dynamical Casimir effect: Explorations with shaken condensates. <i>Physical Review A</i> , 2019, 99, .	2.5	12
192	Relaxation in an extended bosonic Josephson junction. <i>Physical Review Research</i> , 2021, 3, .	3.6	12
193	Classical and quantum binding of a particle with arbitrary spin in the magnetic field of a current-carrying wire: a simple guide for atoms. <i>Quantum and Semiclassical Optics: Journal of the European Optical Society Part B</i> , 1996, 8, 693-712.	0.9	11
194	Mastering the language of atoms. <i>Nature</i> , 2001, 413, 466-467.	27.8	11
195	Electronic structure of atoms in magnetic quadrupole traps. <i>Physical Review A</i> , 2004, 69, .	2.5	11
196	Detecting neutral atoms on an atom chip. <i>Fortschritte Der Physik</i> , 2006, 54, 746-764.	4.4	11
197	Quantum read-out for cold atomic quantum simulators. <i>Communications Physics</i> , 2020, 3, .	5.3	11
198	Classical and Quantum Atom Fringes. , 1997, , 85-120.		11

#	ARTICLE	IF	CITATIONS
199	The electric polarizability of the neutron. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1989, 284, 137-142.	1.6	10
200	Particle with arbitrary spin in the magnetic field of a linear current. Physical Review A, 1996, 54, R2525-R2528.	2.5	10
201	Determining the electron forward-scattering amplitude using electron interferometry. Physical Review A, 1999, 59, R942-R945.	2.5	10
202	Designing potentials by sculpturing wires. Physical Review A, 2007, 75, .	2.5	10
203	Creation of macroscopic quantum superposition states by a measurement. Europhysics Letters, 2008, 83, 60004.	2.0	10
204	Detecting One-Dimensional Dipolar Bosonic Crystal Orders via Full Distribution Functions. Physical Review Letters, 2020, 125, 093602.	7.8	10
205	Multiplex velocity selection for precision matter-wave interferometry. Applied Physics B: Lasers and Optics, 1995, 60, 193-197.	2.2	9
206	Absorptive masks of light: A useful tool for spatial probing in atom optics. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 3850.	1.6	9
207	Microtraps and Atom Chips: Toolboxes for Cold Atom Physics. General Relativity and Gravitation, 2004, 36, 2317-2329.	2.0	9
208	Cold atoms near surfaces: designing potentials by sculpturing wires. Journal of Physics: Conference Series, 2005, 19, 30-33.	0.4	9
209	A search for F production in 360 GeV/c $\bar{p}p$ interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 156, 444-450.	4.1	8
210	Two-wire guides and traps with vertical bias fields on atom chips. Physical Review A, 2005, 72, .	2.5	8
211	Restoring integrability in one-dimensional quantum gases by two-particle correlations. Physical Review A, 2009, 79, .	2.5	8
212	Parametric-squeezing amplification of Bose-Einstein condensates. Physical Review A, 2015, 92, .	2.5	8
213	On the observation of decoherence with a movable mirror. European Physical Journal D, 2001, 13, 93-107.	1.3	7
214	Random on-site interactions versus random potential in ultra cold atoms in optical lattices. Applied Physics B: Lasers and Optics, 2006, 82, 217-224.	2.2	7
215	Probing the dark side. Science, 2015, 349, 786-787.	12.6	7
216	Thermalization dynamics of two correlated bosonic quantum wires after a split. Physical Review A, 2018, 97, .	2.5	7

#	ARTICLE	IF	CITATIONS
217	Enhancing photon collection from quantum emitters in diamond. Progress in Informatics, 2011, , 33.	0.2	7
218	Diffraction matter wave optics in time. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 2817.	2.1	6
219	Matter wave sidebands from a complex potential with temporal helicity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 1509-1520.	2.1	6
220	Filtered Talbot lens: Producing $\hat{g}/2n$ -periodic atomic patterns with standing-wave fields having period \hat{d} . Physical Review A, 2000, 61, .	2.5	6
221	Optimizing atom interferometry on atom chips. Fortschritte Der Physik, 2009, 57, 1121-1132.	4.4	6
222	Quantum heat waves in a one-dimensional condensate. Physical Review B, 2017, 95, .	3.2	6
223	Observation of atom-number fluctuations in optical lattices via quantum collapse and revival dynamics. Physical Review A, 2019, 99, .	2.5	6
224	Simulating a quantum commensurate-incommensurate phase transition using two Raman-coupled one-dimensional condensates. Physical Review B, 2020, 101, .	3.2	6
225	Failure of geometric electromagnetism in the adiabatic vector Kepler problem. Physical Review A, 2004, 69, .	2.5	5
226	Stochastic Optimization of Bose-Einstein Condensation Using a Genetic Algorithm. , 2011, , .		5
227	Two-body anticorrelation in a harmonically trapped ideal Bose gas. Physical Review A, 2012, 86, .	2.5	5
228	Studying non-equilibrium many-body dynamics using one-dimensional Bose gases. , 2014, , .		5
229	Nonlinear quantum gates for a Bose-Einstein condensate. Physical Review Research, 2022, 4, .	3.6	5
230	Wave aspects of electron and ion emission from point sources. Physica Scripta, 1990, 42, 124-128.	2.5	4
231	Anomalous transmission in atom optics. Journal of Modern Optics, 1997, 44, 2629-2641.	1.3	4
232	Rydberg atoms in a magnetic quadrupole field. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, S151-S170.	1.5	4
233	Current-induced magnetization hysteresis defines atom trapping in a superconducting atomchip. SciPost Physics, 2018, 4, .	4.9	4
234	Thermometry of one-dimensional Bose gases with neural networks. Physical Review A, 2021, 104, .	2.5	4

#	ARTICLE	IF	CITATIONS
235	Measurement of the Electric Polarizability of the Neutron. <i>Physical Review Letters</i> , 1988, 61, 2509-2509.	7.8	3
236	An analog and time digitizer for two-dimensional data acquisition for time-of-flight measurements. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1989, 276, 250-257.	1.6	3
237	Atoms and wires: toward atom chips. <i>IEEE Journal of Quantum Electronics</i> , 2000, 36, 1364-1377.	1.9	3
238	Electron beam driven alkali metal atom source for loading a magneto-optical trap in a cryogenic environment. <i>Applied Physics B: Lasers and Optics</i> , 2011, 102, 819-823.	2.2	3
239	One-Dimensional Atomic Superfluids as a Model System for Quantum Thermodynamics. <i>Fundamental Theories of Physics</i> , 2018, , 823-851.	0.3	3
240	High-precision cross-section measurement on a pulsed white neutron source / Präzisionsmessung von Neutronen-Wirkungsquerschnitten an einer gepulsten Neutronenquelle.. <i>Kerntechnik</i> , 1989, 53, 218-222.	0.2	3
241	Mechanisms for the emergence of Gaussian correlations. <i>SciPost Physics</i> , 2022, 12, .	4.9	3
242	Interferometry with Atoms and Molecules. <i>Annals of the New York Academy of Sciences</i> , 1995, 755, 192-216.	3.8	2
243	Atom waves in passing. <i>Nature</i> , 2005, 437, 1102-1102.	27.8	2
244	Conference on Atoms and Molecules near Surfaces (CAMS). <i>Journal of Physics: Conference Series</i> , 2005, 19, .	0.4	2
245	Atom Interferometers and Atomic Coherence. <i>Fortschritte Der Physik</i> , 1998, 46, 801-808.	4.4	1
246	Nanometer definition of atomic beams with masks of light. , 0, , .		1
247	A neutral atom and a thin wire: on the road to mesoscopic atom optics. , 0, , .		1
248	Miniaturizing atom optics: from wires to atom chips. <i>Comptes Rendus Physique</i> , 2001, 2, 551-563.	0.1	1
249	Ultracold atoms on atom chips: Manipulation at the $\hat{1}/4$ m distance scale. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	1
250	Shaking the condensates: Optimal number squeezing in the dynamic splitting of a Bose-Einstein condensate. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 432-435.	2.7	1
251	Embracing Quantum Metrology with Wide Arms. <i>Physics Magazine</i> , 2011, 4, .	0.1	1
252	Large-scale quantum technology based on luminescent centers in crystals. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
253	A universal quantum module for quantum communication, computation, and metrology. , 2017, , .		1
254	Diffraction of strongly interacting molecular Bose-Einstein condensate from standing wave light pulses. SciPost Physics, 2022, 12, .	4.9	1
255	Quenches, Relaxation, and Prethermalization in an Isolated Quantum System. , 0, , 151-167.		0
256	Atom interferometry. AIP Conference Proceedings, 1993, , .	0.4	0
257	Bragg Scattering of Atoms at an Absorptive Light Crystal. , 1996, , .		0
258	Using an atom interferometer to take the Gedanken out of Feynman's Gedankenexperiment. , 1997, , .		0
259	<title>Atomic beam propagation effects: index of refraction and longitudinal tomography</title>. , 1997, , .		0
260	<title>Interferometry with atoms and molecules: a tutorial</title>. , 1997, , .		0
261	<title>Atom waves in crystals made of light</title>. , 1997, , .		0
262	Tailored periodic potentials in atom optics. , 0, , .		0
263	Quantum information processing with atom chips. , 0, , .		0
264	Bose-Einstein condensation in an atom chip. , 2003, , .		0
265	Microcavities on atom chips for single-atom detection. , 0, , .		0
266	Integrated matter wave optics on atom chips. , 0, , .		0
267	Coherent matter wave optics on an atom chip. , 2006, , .		0
268	Integrated circuits for matter waves. Physics Magazine, 2011, 4, .	0.1	0
269	Focus on Bose condensation phenomena in atomic and solid state physics. New Journal of Physics, 2013, 15, 035010.	2.9	0
270	Connecting photons to spins. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
271	How not to boil. Nature Physics, 2013, 9, 266-267.	16.7	0
272	Quantum communication utilizing cavity-based quantum devices. , 2013, , .		0
273	Memory-based Quantum Repeaters with NV Centers. , 2014, , .		0
274	Preface: Quantum Communication, Measurement and Computing (QCMC). , 2014, , .		0
275	Single spontaneous photon as a coherent beamsplitter for an atomic matter-wave. , 2014, , .		0
276	Quantum repeater architecture and NV-based node technology. , 2014, , .		0
277	A quantum repeater network formed with hybrid NV diamond modules (Conference Presentation). , 2016, , .		0
278	Optics and Interferometry with Atoms and Molecules. , 2001, , 63-80.		0
279	MIXED INTERNAL-EXTERNAL STATE APPROACH FOR QUANTUM COMPUTATION WITH NEUTRAL ATOMS ON ATOM CHIPS. , 2006, , .		0
280	Decoherence Dynamics in Interferometry with One-Dimensional Bose-Einstein Condensates. , 2007, , .		0
281	Quantum Information Device Based on NV Diamond Centers for Quantum Network. , 2012, , .		0
282	Quantum Device and Architecture based on NV Centers for Quantum Networks. , 2013, , .		0
283	Electric Properties of the Neutron from Precision Cross Section Measurements. Research Reports in Physics, 1992, , 163-165.	0.0	0
284	Photon Scattering from Atoms in an Atom Interferometer: Coherence Lost and Regained. , 1996, , 133-141.		0
285	Matter Wave Diffraction at Standing Light Waves. , 1999, , 245-247.		0
286	Optics and Interferometry with Atoms and Molecules. , 1999, , 143-152.		0
287	Hybrid quantum systems in the microwave regime (Conference Presentation). , 2018, , .		0
288	Detecting Neutral Atoms on an Atom Chip. , 0, , 185-210.		0