J J Arlt

List of Publications by Year
in descending order

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83 papers	4,157 citations	126907 33 h-index	110387 64 g-index
84 all docs	84 docs citations	84 times ranked	2713 citing authors

#	Article	IF	Citations
1	Non-equilibrium quantum dynamics and formation of the Bose polaron. Nature Physics, 2021, 17, 731-735.	16.7	63
2	Initial Dynamics of Quantum Impurities in a Boseâ€“Einstein Condensate. Atoms, 2021, 9, 22.	1.6	4
3	Observation of Microcanonical Atom Number Fluctuations in a Bose-Einstein Condensate. Physical Review Letters, 2021, 126, 153601.	7.8	9
4	Observation of a Lee-Huang-Yang Fluid. Physical Review Letters, 2021, 126, 230404.	7.8	36
5	Remote multi-user control of the production of Boseâ€“Einstein condensates. Applied Physics B: Lasers and Optics, 2021, 127, 1.	2.2	3
6	Number-resolved preparation of mesoscopic atomic ensembles. New Journal of Physics, 2021, 23, 113046.	2.9	5
7	Simulation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>X</mml:mi><mml:mi>X</mml:mi><mml:mi>Z</mml:mi></mml:math> Spin Models Using Sideband Transitions in Trapped Bosonic Gases. Physical Review Letters, 2020, 125, 240504.	7.8	13
8	Spatial tomography of individual atoms in a quantum gas microscope. Physical Review A, 2020, 102, .	2.5	6
9	Analyzing a Bose polaron across resonant interactions. Physical Review A, 2019, 99, .	2.5	68
10	Observation of Atom Number Fluctuations in a Bose-Einstein Condensate. Physical Review Letters, 2019, 122, 163601.	7.8	29
11	Spatially-selective in situ magnetometry of ultracold atomic clouds. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 075003.	1.5	10
12	Time-of-flight expansion of binary Boseâ€“Einstein condensates at finite temperature. New Journal of Physics, 2018, 20, 053004.	2.9	22
13	Temperature dependence of an Efimov resonance in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">K</mml:mi><mml:mprescripts /><mml:none /><mml:mn>39</mml:mn></mml:mmultiscripts></mml:math>. Physical Review A, 2018, 98, .	2.5	3
14	Dilute Fluid Governed by Quantum Fluctuations. Physical Review Letters, 2018, 121, 173403.	7.8	46
15	Measurement-enhanced determination of BEC phase transitions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 175301.	1.5	9
16	Sub-atom shot noise Faraday imaging of ultracold atom clouds. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 034004.	1.5	15
17	Note: A portable rotating waveplate polarimeter. Review of Scientific Instruments, 2017, 88, 036101.	1.3	5
18	0.75 atoms improve the clock signal of 10,000 atoms. , 2017, , .		0

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19	Finite-temperature behavior of the Bose polaron. Physical Review A, 2017, 96, .	2.5	38
20	A simple laser locking system based on a field-programmable gate array. Review of Scientific Instruments, 2016, 87, 073106.	1.3	12
21	Semi-classical dynamics of superradiant Rayleigh scattering in a Boseâ€“Einstein condensate. Journal of Modern Optics, 2016, 63, 1886-1897.	1.3	8
22	Universal Three-Body Physics in Ultracold KRb Mixtures. Physical Review Letters, 2016, 117, 163201.	7.8	41
23	Improvement of an Atomic Clock using Squeezed Vacuum. Physical Review Letters, 2016, 117, 143004.	7.8	94
24	Phase separation and dynamics of two-component Bose-Einstein condensates. Physical Review A, 2016, 94, .	2.5	78
25	Preparation of Ultracold Atom Clouds at the Shot Noise Level. Physical Review Letters, 2016, 117, 073604.	7.8	33
26	Observation of Attractive and Repulsive Polarons in a Bose-Einstein Condensate. Physical Review Letters, 2016, 117, 055302.	7.8	325
27	Satisfying the Einstein-Podolsky-Rosen criterion with massive particles. Proceedings of SPIE, 2016, , .	0.8	1
28	Tunable dual-species Bose-Einstein condensates of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">K</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>39</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">Rb</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>87</mml:m	2.5	76
29	Time-limited optimal dynamics beyond the quantum speed limit. Physical Review A, 2015, 92, .	2.5	10
30	A continuously pumped reservoir of ultracold atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 165301.	1.5	3
31	Satisfying the Einsteinâ€“Podolskyâ€“Rosen criterion with massive particles. Nature Communications, 2015, 6, 8984.	12.8	85
32	Interaction-free measurements by quantum Zeno stabilization of ultracold atoms. Nature Communications, 2015, 6, 6811.	12.8	38
33	Spin dynamics in a two-dimensional quantum gas. Physical Review A, 2014, 89, .	2.5	7
34	Detecting Multiparticle Entanglement of Dicke States. Physical Review Letters, 2014, 112, 155304.	7.8	172
35	Evolutionary optimization of an experimental apparatus. Applied Physics Letters, 2013, 102, .	3.3	12
36	Spontaneous symmetry breaking in spinor Bose-Einstein condensates. Physical Review A, 2013, 88, .	2.5	10

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37	Non-destructive Faraday imaging of dynamically controlled ultracold atoms. Review of Scientific Instruments, 2013, 84, 083105.	1.3	56
38	Production and manipulation of wave packets from ultracold atoms in an optical lattice. Physical Review A, 2013, 88, .	2.5	13
39	The pumpâ€“probe coupling of matter wave packets to remote lattice states. New Journal of Physics, 2012, 14, 083013.	2.9	13
40	Dynamical control of matter-wave splitting using time-dependent optical lattices. Physical Review A, 2012, 85, .	2.5	12
41	Twin Matter Waves for Interferometry Beyond the Classical Limit. Science, 2011, 334, 773-776.	12.6	352
42	Extended Coherence Time on the Clock Transition of Optically Trapped Rubidium. Physical Review Letters, 2011, 106, 240801.	7.8	40
43	Hexapole-compensated magneto-optical trap on a mesoscopic atom chip. Physical Review A, 2011, 83, .	2.5	16
44	OBSERVATION OF VACUUM FLUCTUATIONS IN A SPINOR BOSE-EINSTEIN CONDENSATE. , 2010, , .		0
45	Resonant amplification of quantum fluctuations in a spinor gas. Laser Physics, 2010, 20, 1156-1162.	1.2	4
46	Parametric amplification of matter waves in dipolar spinor Bose-Einstein condensates. Physical Review A, 2010, 82, .	2.5	12
47	A slow gravity compensated atom laser. Applied Physics B: Lasers and Optics, 2010, 100, 117-123.	2.2	27
48	Parametric Amplification of Vacuum Fluctuations in a Spinor Condensate. Physical Review Letters, 2010, 104, 195303.	7.8	73
49	Spontaneous Breaking of Spatial and Spin Symmetry in Spinor Condensates. Physical Review Letters, 2010, 105, 135302.	7.8	48
50	Multiresonant Spinor Dynamics in a Bose-Einstein Condensate. Physical Review Letters, 2009, 103, 195302.	7.8	58
51	Resonant amplification of quantum fluctuations with a spinor gas. , 2009, , .		0
52	Transport of a quantum degenerate heteronuclear Bose-Fermi mixture in a harmonic trap. European Physical Journal D, 2008, 48, 121-126.	1.3	15
53	Damped Bloch oscillations of Boseâ€“Einstein condensates in disordered potential gradients. New Journal of Physics, 2008, 10, 045027.	2.9	19
54	Radio-frequency association of heteronuclear Feshbach molecules. Physical Review A, 2008, 78, .	2.5	36

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55	Dynamics of Bloch oscillations in disordered lattice potentials. Physical Review A, 2008, 77, . <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mi	2.5	30
56	mathvariant="normal">K</mml:mi><mml:none /><mml:none /><mml:mprescripts /><mml:none /><mml:mn>40</mml:mn></mml:mmultiscripts><mml:mtext>â^'</mml:mtext><mml:mmultiscripts><mml:mi>Rb</mml:mi><mml:none /><mml:none /><mml:mprescripts /><mml:none /><mml:mn>87</mml:mn></mml:mmultiscripts></mml:mrow></mml:math>Feshbach resonances: Modeli	2.5	37
57	Analysis of localization phenomena in weakly interacting disordered lattice gases. , 2007, , .		0
58	Analysis of localization phenomena in weakly interacting disordered lattice gases. New Journal of Physics, 2006, 8, 230-230.	2.9	22
59	Ultraviolet light-induced atom desorption for large rubidium and potassium magneto-optical traps. Physical Review A, 2006, 73, .	2.5	76
60	Collective excitation of Bose-Einstein condensates in the transition region between three and one dimensions. Physical Review A, 2005, 72, .	2.5	14
61	Atom optics, guided atoms, and atom interferometry. Advances in Atomic, Molecular and Optical Physics, 2005, , 55-89.	2.3	10
62	Routes Towards Anderson-Like Localization of Bose-Einstein Condensates in Disordered Optical Lattices. Physical Review Letters, 2005, 95, 170411.	7.8	214
63	Dynamics ofF=2Spinor Bose-Einstein Condensates. Physical Review Letters, 2004, 92, 040402.	7.8	306
64	Magnetism in ultracold quantum gases. Journal of Modern Optics, 2004, 51, 1829-1841.	1.3	1
65	Magnetism in ultracold quantum gases. Journal of Modern Optics, 2004, 51, 1829-1841.	1.3	1
66	Characterization and control of phase fluctuations in elongated Bose-Einstein condensates. Applied Physics B: Lasers and Optics, 2003, 76, 165-172.	2.2	13
67	Second-order correlation function of a phase fluctuating Bose-Einstein condensate. Physical Review A, 2003, 68, .	2.5	28
68	Measurement of the Spatial Correlation Function of Phase Fluctuating Bose-Einstein Condensates. Physical Review Letters, 2003, 91, 010406.	7.8	120
69	Spectroscopy of dark soliton states in BoseÂEinstein condensates. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, S124-S130.	1.4	18
70	Bose-Einstein condensation in dilute atomic gases. Die Naturwissenschaften, 2002, 89, 47-56.	1.6	1
71	Phase fluctuations in Boseâ€“Einstein condensates. Applied Physics B: Lasers and Optics, 2001, 73, 781-789.	2.2	39
72	Coherent manipulation and guiding of Boseâ€“Einstein condensates by optical dipole potentials. Comptes Rendus Physique, 2001, 2, 671-680.	0.1	6

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73	Observation of Phase Fluctuations in Elongated Bose-Einstein Condensates. Physical Review Letters, 2001, 87, 160406.	7.8	246
74	Waveguide for Bose-Einstein condensates. Physical Review A, 2001, 63, .	2.5	164
75	Bose-Einstein condensation in a stiff TOP trap with adjustable geometry. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4087-4094.	1.5	7
76	Measurement of elastic cross section for cold cesium collisions. Physical Review A, 2000, 61, .	2.5	34
77	Observation of Harmonic Generation and Nonlinear Coupling in the Collective Dynamics of a Bose-Einstein Condensate. Physical Review Letters, 2000, 85, 692-695.	7.8	45
78	Dipole force trapping of caesium atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4149-4155.	1.5	7
79	Observation of the Scissors Mode and Evidence for Superfluidity of a Trapped Bose-Einstein Condensed Gas. Physical Review Letters, 2000, 84, 2056-2059.	7.8	234
80	Bose-Einstein condensation in a rotating anisotropic TOP trap. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 5861-5869.	1.5	17
81	A pyramidal magneto-optical trap as a source of slow atoms. Optics Communications, 1998, 157, 303-309.	2.1	47
82	Suppression of collisional loss from a magnetic trap. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, L321-L327.	1.5	18
83	An experiment to observe the intensity and phase structure of Laguerreâ€“Gaussian laser modes. American Journal of Physics, 1996, 64, 77-82.	0.7	219