Michael Kohl

List of Publications by Year
in descending order

83 papers	7,890 citations	71097 41 h-index	71682 76 g-index
84 all docs	84 docs citations	84 times ranked	3843 citing authors

#	Article	IF	Citations
1	Transition from a Strongly Interacting 1D Superfluid to a Mott Insulator. Physical Review Letters, 2004, 92, 130403.	7.8	898
2	Fermionic Atoms in a Three Dimensional Optical Lattice: Observing Fermi Surfaces, Dynamics, and Interactions. Physical Review Letters, 2005, 94, 080403.	7.8	564
3	Cavity QED with a Boseâ€“Einstein condensate. Nature, 2007, 450, 268-271.	27.8	483
4	Evidence for a Critical Velocity in a Bose-Einstein Condensed Gas. Physical Review Letters, 1999, 83, 2502-2505.	7.8	453
5	Exciting Collective Oscillations in a Trapped 1D Gas. Physical Review Letters, 2003, 91, 250402.	7.8	445
6	Attractive and repulsive Fermi polarons in two dimensions. Nature, 2012, 485, 619-622.	27.8	359
7	A trapped single ion inside a Boseâ€“Einstein condensate. Nature, 2010, 464, 388-391.	27.8	335
8	Confinement Induced Molecules in a 1D Fermi Gas. Physical Review Letters, 2005, 94, 210401.	7.8	333
9	Correlations and Counting Statistics of an Atom Laser. Physical Review Letters, 2005, 95, 090404.	7.8	265
10	Bose-Fermi Mixtures in a Three-Dimensional Optical Lattice. Physical Review Letters, 2006, 96, 180402.	7.8	263
11	Molecules of Fermionic Atoms in an Optical Lattice. Physical Review Letters, 2006, 96, 030401.	7.8	231
12	Radio-Frequency Spectroscopy of a Strongly Interacting Two-Dimensional Fermi Gas. Physical Review Letters, 2011, 106, 105301.	7.8	207
13	Observation of a pairing pseudogap in a two-dimensional Fermi gas. Nature, 2011, 480, 75-78.	27.8	204
14	p-Wave Interactions in Low-Dimensional Fermionic Gases. Physical Review Letters, 2005, 95, 230401.	7.8	190
15	Quantum Transport through a Tonks-Girardeau Gas. Physical Review Letters, 2009, 103, 150601.	7.8	179
16	Critical Behavior of a Trapped Interacting Bose Gas. Science, 2007, 315, 1556-1558.	12.6	151
17	Controlling chemical reactions of a single particle. Nature Physics, 2012, 8, 649-652.	16.7	126
18	Scale Invariance and Viscosity of a Two-Dimensional Fermi Gas. Physical Review Letters, 2012, 108, 070404.	7.8	114

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19	Excitations of a Superfluid in a Three-Dimensional Optical Lattice. Physical Review Letters, 2004, 93, 240402.	7.8	111
20	Interaction-Controlled Transport of an Ultracold Fermi Gas. Physical Review Letters, 2007, 99, 220601.	7.8	102
21	Cold Heteronuclear Atom-Ion Collisions. Physical Review Letters, 2010, 105, 133201.	7.8	102
22	Single Ion Coupled to an Optical Fiber Cavity. Physical Review Letters, 2013, 110, 043003.	7.8	99
23	Cooling fermionic atoms in optical lattices by shaping the confinement. Physical Review A, 2009, 79, .	2.5	89
24	Surface Excitations of a Bose-Einstein Condensate. Physical Review Letters, 2000, 84, 810-813.	7.8	83
25	Universal spin dynamics in two-dimensional Fermi gases. Nature Physics, 2013, 9, 405-409.	16.7	83
26	Superfluid to Mott insulator transition in one, two, and three dimensions. Journal of Low Temperature Physics, 2005, 138, 635-644.	1.4	80
27	Growth of Bose-Einstein Condensates from Thermal Vapor. Physical Review Letters, 2002, 88, 080402.	7.8	78
28	Observing the Formation of Long-Range Order during Bose-Einstein Condensation. Physical Review Letters, 2007, 98, 090402.	7.8	75
29	Optics with an Atom Laser Beam. Physical Review Letters, 2001, 87, 030401.	7.8	70
30	Equation of State of the Two-Dimensional Hubbard Model. Physical Review Letters, 2016, 116, 175301.	7.8	69
31	Measuring the Temporal Coherence of an Atom Laser Beam. Physical Review Letters, 2001, 87, 160404.	7.8	68
32	Decoherence of a Single-Ion Qubit Immersed in a Spin-Polarized Atomic Bath. Physical Review Letters, 2013, 110, 160402.	7.8	68
33	Higgs mode in a strongly interacting fermionic superfluid. Nature Physics, 2018, 14, 781-785.	16.7	67
34	Scanning tunneling microscopy for ultracold atoms. Physical Review A, 2007, 76, .	2.5	58
35	Direct Photonic Coupling of a Semiconductor Quantum Dot and a Trapped Ion. Physical Review Letters, 2015, 114, 123001.	7.8	58
36	Antiferromagnetic Correlations in Two-Dimensional Fermionic Mott-Insulating and Metallic Phases. Physical Review Letters, 2017, 118, 170401.	7.8	55

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37	Kinetics of a single trapped ion in an ultracold buffer gas. New Journal of Physics, 2011, 13, 053020.	2.9	54
38	Competing magnetic orders in a bilayer Hubbard model with ultracold atoms. Nature, 2021, 589, 40-43.	27.8	45
39	Hybrid apparatus for Bose-Einstein condensation and cavity quantum electrodynamics: Single atom detection in quantum degenerate gases. Review of Scientific Instruments, 2006, 77, 063118.	1.3	44
40	Thermometry of fermionic atoms in an optical lattice. Physical Review A, 2006, 73, .	2.5	41
41	Two-Dimensional Fermi Liquid with Attractive Interactions. Physical Review Letters, 2012, 109, 130403.	7.8	41
42	Observing the profile of an atom laser beam. Physical Review A, 2005, 72, .	2.5	34
43	Cavity QED detection of interfering matter waves. Physical Review A, 2006, 73, .	2.5	29
44	Relaxation Dynamics of a Fermi Gas in an Optical Superlattice. Physical Review Letters, 2014, 113, 170403.	7.8	28
45	1D Bose gases in an optical lattice. Applied Physics B: Lasers and Optics, 2004, 79, 1009-1012.	2.2	27
46	Transverse mode of an atom laser. Physical Review A, 2002, 65, .	2.5	26
47	Cavity-induced backaction in Purcell-enhanced photon emission of a single ion in an ultraviolet fiber cavity. Physical Review A, 2017, 95, .	2.5	26
48	Achievements and perspectives of optical fiber Fabryâ€“Perot cavities. Applied Physics B: Lasers and Optics, 2022, 128, 1.	2.2	24
49	Deterministic spin-photon entanglement from a trapped ion in a fiber Fabryâ€“Perot cavity. Npj Quantum Information, 2021, 7, .	6.7	23
50	Radio-frequency spectra of Feshbach molecules in quasi-two-dimensional geometries. Physical Review A, 2012, 85, .	2.5	22
51	Collective modes of a two-dimensional spin-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:math>Fermi gas in a harmonic trap. Physical Review A, 2013, 87, .	2.5	22
52	Thermodynamics versus Local Density Fluctuations in the Metalâ€“Mott-Insulator Crossover. Physical Review Letters, 2016, 117, 135301.	7.8	19
53	Measuring Entropy and Short-Range Correlations in the Two-Dimensional Hubbard Model. Physical Review X, 2017, 7, .	8.9	18
54	Photon Emission and Absorption of a Single Ion Coupled to an Optical-Fiber Cavity. Physical Review Letters, 2014, 113, 263003.	7.8	17

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55	Strongly interacting atoms and molecules in a 3D optical lattice. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S47-S56.	1.5	13
56	Observation of higher order NMR larmor lines by SQUID in solids at low magnetic field. Journal of Low Temperature Physics, 1988, 72, 319-343.	1.4	12
57	Continuous detection of an atom laser beam. Physical Review A, 2002, 65, .	2.5	11
58	Hybrid quantum systems of atoms and ions. Journal of Physics: Conference Series, 2011, 264, 012019.	0.4	10
59	Laser spectroscopy and cooling of Yb+ions on a deep-UV transition. Physical Review A, 2012, 85, .	2.5	9
60	Time interval distributions of atoms in atomic beams. Applied Physics B: Lasers and Optics, 2007, 86, 391-393.	2.2	8
61	Isotope shift and hyperfine splitting of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>4</mml:mn><mml:mi>s</mml:mi><mml:mo>â†'</mml:mo><mml:mn>5</mml:mn><mml:mi>p in potassium. Physical Review A, 2011, 83, .	2.5	8
62	Coherent manipulation of spin correlations in the Hubbard model. Physical Review A, 2018, 97, .	2.5	8
63	Simulating a Mott Insulator Using Attractive Interaction. Physical Review Letters, 2020, 124, 010403.	7.8	7
64	Pair correlations in the attractive Hubbard model. Physical Review Research, 2020, 2, .	3.6	7
65	Monolayer graphene as dissipative membrane in an optical resonator. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	6
66	Ultraviolet Fabry-Perot cavity with stable finesse under ultrahigh vacuum conditions. Review of Scientific Instruments, 2019, 90, 063102.	1.3	6
67	Correlated-photon-pair emission from a cw-pumped Fabry-Perot microcavity. Physical Review A, 2018, 97, .	2.5	5
68	Decay and revival of a transient trapped Fermi condensate. Physical Review Research, 2021, 3, .	3.6	5
69	All-optical pump-and-probe detection of two-time correlations in a Fermi gas. Physical Review A, 2010, 81, .	2.5	4
70	Criticality and Correlations in Cold Atomic Gases. , 2008, , 79-88.		2
71	Finite-duration interaction quench in dilute attractively interacting Fermi gases: Emergence of preformed pairs. Physical Review A, 2019, 100, .	2.5	2
72	A compact and fast magnetic coil for the manipulation of quantum gases with Feshbach resonances. Review of Scientific Instruments, 2021, 92, 093202.	1.3	2

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73	Line width of an atom laser. Applied Physics B: Lasers and Optics, 2003, 76, 109-112.	2.2	1
74	FERMIONIC ATOMS WITH TUNABLE INTERACTIONS IN A 3D OPTICAL LATTICE. , 2005, , .		1
75	Low-Dimensional Atomic Bose Gases. Contemporary Concepts of Condensed Matter Science, 2012, 5, 95-120.	0.5	1
76	Second-order response theory of radio-frequency spectroscopy for cold atoms. Physical Review A, 2015, 92, .	2.5	1
77	Correlated photon-pair generation in a liquid-filled microcavity. New Journal of Physics, 2019, 21, 123037.	2.9	1
78	Fermionic atoms in an optical lattice. , 2005, , .		0
79	Realisation of a photonic link between a trapped ion and a semiconductor quantum dot. , 2014, , .		0
80	Cavity-QED with a Trapped Ion in an Optical Fiber Cavity. , 2015, , .		0
81	Monolayer Graphene as Dissipative Membrane in an Optical Resonator. , 2018, , 617-627.		0
82	Realisation of a photonic link between a trapped ion and a semiconductor quantum dot. , 2014, , .		0
83	Radio-frequency driving of an attractive Fermi gas in a one-dimensional optical lattice. Physical Review A, 2022, 105, .	2.5	0