

# Erich J Mueller

## List of Publications by Year in descending order

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115  
papers

3,609  
citations

172207

29  
h-index

138251

58  
g-index

118  
all docs

118  
docs citations

118  
times ranked

2252  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rotating Bose gas dynamically entering the lowest Landau level. Physical Review A, 2022, 105, .	1.0	1
2	Superfluidity in the one-dimensional Bose-Hubbard model. Physical Review B, 2022, 105, .	1.1	7
3	Density Matrix Renormalization Group for Continuous Quantum Systems. Physical Review Letters, 2022, 128, .	2.9	2
4	Drag in Bose-Fermi mixtures. Physical Review A, 2021, 103, .	1.0	1
5	Correlated insulators in twisted bilayer graphene. Physical Review B, 2021, 103, .	1.1	6
6	Driven-dissipative control of cold atoms in tilted optical lattices. Physical Review A, 2021, 103, .	1.0	6
7	Path-Dependent Supercooling of the $^3\text{He}$ Superfluid	2.9	5
8	Influence of sublattice bias on superfluid to Mott insulator transitions. Physical Review A, 2021, 103, .	1.0	1
9	Emission of particles from a parametrically driven condensate in a one-dimensional lattice. Physical Review A, 2021, 104, .	1.0	2
10	Transport in the two-dimensional Fermi-Hubbard model: Lessons from weak coupling. Physical Review B, 2021, 104, .	1.1	4
11	Thermal transport of helium-3 in a strongly confining channel. Nature Communications, 2020, 11, 4843.	5.8	9
12	Unconventional valley-dependent optical selection rules and Landau level mixing in bilayer graphene. Nature Communications, 2020, 11, 2941.	5.8	9
13	Dynamics of Bose-Einstein recondensation in higher bands. Physical Review A, 2020, 101, .	1.0	6
14	Exact topological flat bands from continuum Landau levels. Physical Review A, 2020, 101, .	1.0	4
15	Collective dynamics and atom loss in bright-soliton matter waves. Physical Review A, 2019, 99, .	1.0	2
16	Quantum dimer models emerging from large-spin ultracold atoms. Physical Review A, 2019, 99, .	1.0	4
17	Realizing the Haldane Phase with Bosons in Optical Lattices. Physical Review Letters, 2018, 120, 085301.	2.9	18
18	Coherent generation of photonic fractional quantum Hall states in a cavity and the search for anyonic quasiparticles. Physical Review A, 2018, 97, .	1.0	18

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19	Rewiring stabilizer codes. <i>New Journal of Physics</i> , 2018, 20, 083030.	1.2	11
20	Protocol to engineer Fulde-Ferrell-Larkin-Ovchinnikov states in a cold Fermi gas. <i>Physical Review A</i> , 2017, 96, .	1.0	6
21	Core filling and snaking instability of dark solitons in spin-imbalanced superfluid Fermi gases. <i>Physical Review A</i> , 2017, 95, .	1.0	9
22	Review of pseudogaps in strongly interacting Fermi gases. <i>Reports on Progress in Physics</i> , 2017, 80, 104401.	8.1	49
23	Cooling quantum gases with entropy localization. <i>New Journal of Physics</i> , 2017, 19, 023045.	1.2	1
24	Collective Modes of a Soliton Train in a Fermi Superfluid. <i>Physical Review Letters</i> , 2017, 118, 260402.	2.9	10
25	Lattice bosons with infinite-range checkerboard interactions. <i>Physical Review A</i> , 2016, 94, .	1.0	27
26	Disappearance of quasiparticles in a Bose lattice gas. <i>Physical Review A</i> , 2016, 94, .	1.0	1
27	Evolution of coherence during ramps across the Mott-insulatorâ€“superfluid phase boundary. <i>Physical Review A</i> , 2016, 93, .	1.0	9
28	Proposal to directly observe the Kondo effect through enhanced photoinduced scattering of cold fermionic and bosonic atoms. <i>Physical Review A</i> , 2016, 93, .	1.0	5
29	Dynamics of pattern-loaded fermions in bichromatic optical lattices. <i>Physical Review A</i> , 2016, 93, .	1.0	7
30	Competing ground states of strongly correlated bosons in the Harper-Hofstadter-Mott model. <i>Physical Review A</i> , 2016, 93, .	1.0	16
31	Nonequilibrium fractional Hall response after a topological quench. <i>Physical Review A</i> , 2016, 94, .	1.0	27
32	Observation of a new superfluid phase for $^3\text{He}$ embedded in nematically ordered aerogel. <i>Nature Communications</i> , 2016, 7, 12975.	5.8	27
33	Dimensional crossover in a spin-imbalanced Fermi gas. <i>Physical Review A</i> , 2016, 94, .	1.0	12
34	Anomalous charge pumping in a one-dimensional optical superlattice. <i>Physical Review A</i> , 2015, 92, .	1.0	19
35	Stability of a Bose-Einstein condensate in a driven optical lattice: Crossover between weak and tight transverse confinement. <i>Physical Review A</i> , 2015, 92, .	1.0	14
36	Corrections to the continuous time semiclassical coherent state path integral. <i>European Physical Journal: Special Topics</i> , 2015, 224, 591-596.	1.2	2

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37	Transverse collisional instabilities of a Bose-Einstein condensate in a driven one-dimensional lattice. Physical Review A, 2015, 91, .	1.0	34
38	Quasiparticle dispersions and lifetimes in the normal state of the BCS-BEC crossover. Physical Review A, 2015, 91, .	1.0	6
39	Collisionless spin dynamics in a magnetic field gradient. Physical Review A, 2015, 91, .	1.0	6
40	Kinetics of Bose-Einstein condensation in a dimple potential. Physical Review A, 2015, 91, .	1.0	8
41	Stability of a Floquet Bose-Einstein condensate in a one-dimensional optical lattice. Physical Review A, 2014, 90, .	1.0	57
42	Route to observing topological edge modes in ultracold fermions. Physical Review A, 2014, 89, .	1.0	0
43	Heating from continuous number density measurements in optical lattices. Physical Review A, 2014, 90, .	1.0	10
44	Theory of bosons in two-leg ladders with large magnetic fields. Physical Review A, 2014, 89, .	1.0	61
45	On the ladder. Nature Physics, 2014, 10, 554-555.	6.5	1
46	Floquet edge states with ultracold atoms. Physical Review A, 2014, 89, .	1.0	66
47	Variational study of polarons and bipolarons in a one-dimensional Bose lattice gas in both the superfluid and the Mott-insulator regimes. Physical Review A, 2013, 88, .	1.0	7
48	Vortex ring dynamics in trapped Bose-Einstein condensates. Physical Review A, 2013, 88, .	1.0	23
49	Magnetic-field dependence of Raman coupling in alkali-metal atoms. Physical Review A, 2013, 87, .	1.0	20
50	Magnetic polarons in two-component hard-core bosons. Physical Review A, 2013, 87, .	1.0	2
51	Dynamics of correlations in a dilute Bose gas following an interaction quench. Physical Review A, 2013, 87, .	1.0	36
52	Dynamics of correlations in shallow optical lattices. Physical Review A, 2013, 87, .	1.0	10
53	Absence of the twisted superfluid state in a mean-field model of bosons on a honeycomb lattice. Physical Review A, 2013, 87, .	1.0	7
54	Universal quantum computation with Majorana fermion edge modes through microwave spectroscopy of quasi-one-dimensional cold gases in optical lattices. Physical Review A, 2013, 88, .	1.0	5

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55	Radio-frequency spectrum of fermions near a narrow Feshbach resonance. Physical Review A, 2013, 88, .	1.0	2
56	Looking for Hofstadter's Butterfly in Cold Atoms. Physics Magazine, 2013, 6, .	0.1	12
57	Non-Abelian Braiding of Lattice Bosons. Physical Review Letters, 2012, 108, 066802.	2.9	47
58	Pair Density Waves and Vortices in an Elongated Spin- $1$ Fermi Gas. Physical Review Letters, 2012, 108, 245301.	2.9	8
59	Majorana fermions in one-dimensional spin-orbit-coupled Fermi gases. Physical Review A, 2012, 86, .	1.0	52
60	Evolution of condensate fraction during rapid lattice ramps. Physical Review A, 2012, 85, .	1.0	16
61	Dispersion and wave-function symmetry in cold atoms experiencing artificial gauge fields. Physical Review A, 2012, 85, .	1.0	2
62	Study of Supersolidity and Shear Modulus Anomaly of $^4\text{He}$ in a Triple Compound Oscillator. Journal of Physics: Conference Series, 2012, 400, 012047.	0.3	2
63	Spin-Orbit Coupling Comes in From the Cold. Physics Magazine, 2012, 5, .	0.1	5
64	Interpreting Torsional Oscillator Measurements: Effect of Shear Modulus and Supersolidity. Journal of Low Temperature Physics, 2012, 168, 175-193.	0.6	24
65	Vortex structures of a two-component Bose-Einstein condensate for large anisotropies. Physical Review A, 2011, 84, .	1.0	8
66	Strong Staggered Flux Lattices for Cold Atoms. Physics Magazine, 2011, 4, .	0.1	1
67	Pairing, ferromagnetism, and condensation of a normal spin-1 Bose gas. Physical Review A, 2011, 84, .	1.0	17
68	Local Versus Global Equilibration near the Bosonic Mott-Insulator-Superfluid Transition. Physical Review Letters, 2011, 106, 125301.	2.9	47
69	Techniques to measure quantum criticality in cold atoms. Physical Review A, 2011, 84, .	1.0	37
70	Evolution of the pseudogap in a polarized Fermi gas. Physical Review A, 2011, 83, .	1.0	31
71	Optical-lattice Hamiltonians for relativistic quantum electrodynamics. Physical Review A, 2011, 83, .	1.0	65
72	Even-odd correlation functions on an optical lattice. Physical Review A, 2010, 82, .	1.0	6

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73	Domain-wall dynamics in a two-component Bose-Mott insulator. Physical Review A, 2010, 82, .	1.0	6
74	Spin waves in a spin-1 normal Bose gas. Physical Review A, 2010, 81, .	1.0	10
75	Two-body recombination in a quantum-mechanical lattice gas: Entropy generation and probing of short-range magnetic correlations. Physical Review A, 2010, 82, .	1.0	11
76	Spin-imbalance in a one-dimensional Fermi gas. Nature, 2010, 467, 567-569.	13.7	454
77	Role of interactions in time-of-flight expansion of atomic clouds from optical lattices. Physical Review A, 2010, 82, .	1.0	6
78	Fulde-Ferrell-Larkin-Ovchinnikov versus Bose-Fermi mixture in a polarized one-dimensional Fermi gas at a Feshbach resonance: A three-body study. Physical Review A, 2010, 81, .	1.0	17
79	On-site correlations in optical lattices: Band mixing to coupled quantum Hall puddles. Physical Review A, 2010, 81, .	1.0	27
80	Detecting antiferromagnetism of atoms in an optical lattice via optical Bragg scattering. Physical Review A, 2010, 81, .	1.0	85
81	Exact Parent Hamiltonian for the Quantum Hall States in a Lattice. Physical Review Letters, 2010, 105, 215303.	2.9	119
82	Candidate theories to explain the anomalous spectroscopic signatures of atomic H in molecular $H_2$ Physical Review B, 2010, 82, .	1.1	3
83	Fractional quantum Hall states in the vicinity of Mott plateaus. Physical Review A, 2010, 81, .	1.0	22
84	Many-body physics in the radio-frequency spectrum of lattice bosons. Physical Review A, 2010, 81, .	1.0	10
85	Anomalous spin segregation in a weakly interacting two-component Fermi gas. Physical Review A, 2009, 79, .	1.0	22
86	Absence of pressure-driven supersolid flow at low frequency. Physical Review B, 2009, 80, .	1.1	28
87	Commensurability and hysteretic evolution of vortex configurations in rotating optical lattices. Physical Review A, 2009, 79, .	1.0	11
88	Theory of the normal-superfluid interface in population-imbalanced Fermi gases. Physical Review A, 2009, 79, .	1.0	21
89	Vortices near the Mott phase of a trapped Bose-Einstein condensate. Physical Review A, 2009, 79, .	1.0	14
90	Vortex lattices of bosons in deep rotating optical lattices. Physical Review A, 2008, 77, .	1.0	34

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91	Generic features of the spectrum of trapped polarized fermions. Physical Review A, 2008, 78, .	1.0	4
92	Stability of bosonic atomic and molecular condensates near a Feshbach resonance. Physical Review A, 2008, 78, .	1.0	17
93	Final-State Effects in the Radio Frequency Spectrum of Strongly Interacting Fermions. Physical Review Letters, 2008, 101, 060405.	2.9	28
94	Quantum Monte Carlo study of one-dimensional trapped fermions with attractive contact interactions. Physical Review A, 2008, 78, .	1.0	105
95	Stirring trapped atoms into fractional quantum Hall puddles. Physical Review A, 2008, 78, .	1.0	13
96	Influence of Film-Mediated Interactions on the Microwave and Radio Frequency Spectrum of Spin-Polarized Hydrogen on Helium Films. Physical Review Letters, 2008, 101, 165301.	2.9	4
97	Quasi-One-Dimensional Polarized Fermi Superfluids. Physical Review Letters, 2007, 99, 250403.	2.9	123
98	Hyperfine spectra of trapped bosons in optical lattices. Physical Review A, 2007, 76, .	1.0	15
99	Fragmentation of Bose-Einstein condensates. Physical Review A, 2006, 74, .	1.0	244
100	Surface Tension in Unitary Fermi Gases with Population Imbalance. Physical Review Letters, 2006, 97, 070402.	2.9	80
101	Profiles of near-resonant population-imbalanced trapped Fermi gases. Physical Review A, 2006, 73, .	1.0	103
102	Wigner crystallization in inhomogeneous one-dimensional wires. Physical Review B, 2005, 72, .	1.1	26
103	Collective oscillations of a Fermi gas near a Feshbach resonance. Physical Review A, 2005, 72, .	1.0	16
104	Density Profile of a Harmonically Trapped Ideal Fermi Gas in Arbitrary Dimension. Physical Review Letters, 2004, 93, 190404.	2.9	26
105	Artificial electromagnetism for neutral atoms: Escher staircase and Laughlin liquids. Physical Review A, 2004, 70, .	1.0	170
106	Spin textures in slowly rotating Bose-Einstein condensates. Physical Review A, 2004, 69, .	1.0	74
107	High Temperature Expansion Applied to Fermions near Feshbach Resonance. Physical Review Letters, 2004, 92, 160404.	2.9	132
108	Imaging of spinor gases. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, S115-S125.	0.6	36

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109	Stripe formation in Bose-Einstein condensates with large numbers of vortices. Physical Review A, 2003, 67, .	1.0	10
110	Two-Component Bose-Einstein Condensates with a Large Number of Vortices. Physical Review Letters, 2002, 88, 180403.	2.9	176
111	Superfluidity and mean-field energy loops: Hysteretic behavior in Bose-Einstein condensates. Physical Review A, 2002, 66, .	1.0	110
112	Finite-size scaling and the role of the thermodynamic ensemble in the transition temperature of a dilute Bose gas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 4561-4570.	0.6	14
113	Finite-temperature collapse of a Bose gas with attractive interactions. Physical Review A, 2000, 62, .	1.0	42
114	Multiply connected Bose-Einstein-condensed alkali-metal gases: Current-carrying states and their decay. Physical Review A, 1998, 57, R1505-R1508.	1.0	31
115	Optical-field-dependent electron-electron scattering effects and gain generation in the intersubband transitions of n-doped quantum wells. Journal of Physics Condensed Matter, 1998, 10, 2489-2503.	0.7	12