

Axel U&#euml;j Lode

List of Publications by Year in descending order

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49
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331670

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docs citations

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times ranked

339
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystallization via cavity-assisted infinite-range interactions. <i>Physical Review A</i> , 2022, 106, .	2.5	2
2	Dynamics of Ultracold Bosons in Artificial Gauge Fields—Angular Momentum, Fragmentation, and the Variance of Entropy. <i>Entropy</i> , 2021, 23, 392.	2.2	1
3	Interpretable and unsupervised phase classification. <i>Physical Review Research</i> , 2021, 3, .	3.6	15
4	Mott transition in a cavity-boson system: A quantitative comparison between theory and experiment. <i>SciPost Physics</i> , 2021, 11, .	4.9	7
5	Optimized observable readout from single-shot images of ultracold atoms via machine learning. <i>Physical Review A</i> , 2021, 104, .	2.5	5
6	Detecting One-Dimensional Dipolar Bosonic Crystal Orders via Full Distribution Functions. <i>Physical Review Letters</i> , 2020, 125, 093602.	7.8	10
7	Spectral Structure and Many-Body Dynamics of Ultracold Bosons in a Double-Well. <i>Entropy</i> , 2020, 22, 382.	2.2	4
8	Pathway to chaos through hierarchical superfluidity in blue-detuned cavity-BEC systems. <i>Physical Review A</i> , 2020, 101, .	2.5	13
9	MCTDH-X: The multiconfigurational time-dependent Hartree method for indistinguishable particles software. <i>Quantum Science and Technology</i> , 2020, 5, 024004.	5.8	24
10	<i>Colloquium</i> : Multiconfigurational time-dependent Hartree approaches for indistinguishable particles. <i>Reviews of Modern Physics</i> , 2020, 92, .	45.6	67
11	Superfluid—Mott-insulator transition of ultracold superradiant bosons in a cavity. <i>Physical Review A</i> , 2019, 100, .	2.5	21
12	Management of the correlations of Ultracold Bosons in triple wells. <i>New Journal of Physics</i> , 2019, 21, 053044.	2.9	10
13	Fidelity and Entropy Production in Quench Dynamics of Interacting Bosons in an Optical Lattice. <i>Quantum Reports</i> , 2019, 1, 304-316.	1.3	7
14	Tunneling Dynamics of interacting bosons in a quantum seesaw potential. <i>Journal of Physics: Conference Series</i> , 2019, 1290, 012030.	0.4	0
15	Sorting Fermionization from Crystallization in Many-Boson Wavefunctions. <i>Scientific Reports</i> , 2019, 9, 17873.	3.3	12
16	Correlations of strongly interacting one-dimensional ultracold dipolar few-boson systems in optical lattices. <i>New Journal of Physics</i> , 2019, 21, 033030.	2.9	26
17	Many-Body Effects in Fragmented, Depleted, and Condensed Bosonic Systems in Traps and Optical Cavities by MCTDHB and MCTDH-X. , 2018, , 93-115.		4
18	Phases, many-body entropy measures, and coherence of interacting bosons in optical lattices. <i>Physical Review A</i> , 2018, 97, .	2.5	33

#	ARTICLE	IF	CITATIONS
19	Superlattice switching from parametric instabilities in a driven-dissipative Bose-Einstein condensate in a cavity. <i>Physical Review A</i> , 2018, 98, .	2.5	22
20	Order parameter and detection for a finite ensemble of crystallized one-dimensional dipolar bosons in optical lattices. <i>Physical Review A</i> , 2018, 98, .	2.5	28
21	Many-body physics in two-component Bose-Einstein condensates in a cavity: fragmented superradiance and polarization. <i>New Journal of Physics</i> , 2018, 20, 055006.	2.9	21
22	Phantom vortices: hidden angular momentum in ultracold dilute Bose-Einstein condensates. <i>Scientific Reports</i> , 2017, 7, 40122.	3.3	36
23	Fragmented Superradiance of a Bose-Einstein Condensate in an Optical Cavity. <i>Physical Review Letters</i> , 2017, 118, 013603.	7.8	59
24	Dynamics of Hubbard Hamiltonians with the multiconfigurational time-dependent Hartree method for indistinguishable particles. <i>Physical Review A</i> , 2016, 94, .	2.5	27
25	Multiconfigurational time-dependent Hartree method for fermions: Implementation, exactness, and few-fermion tunneling to open space. <i>Physical Review A</i> , 2016, 93, .	2.5	67
26	Multiconfigurational time-dependent Hartree method for bosons with internal degrees of freedom: Theory and composite fragmentation of multicomponent Bose-Einstein condensates. <i>Physical Review A</i> , 2016, 93, .	2.5	59
27	MCTDHB Physics and Technologies: Excitations and Vorticity, Single-Shot Detection, Measurement of Fragmentation, and Optimal Control in Correlated Ultra-Cold Bosonic Many-Body Systems. , 2016, , 23-49.		5
28	Vorticity, Variance, and the Vigor of Many-Body Phenomena in Ultracold Quantum Systems: MCTDHB and MCTDH-X. , 2016, , 79-96.		3
29	Condensate fragmentation as a sensitive measure of the quantum many-body behavior of bosons with long-range interactions. <i>Physical Review A</i> , 2015, 91, .	2.5	51
30	Many-body entropies, correlations, and emergence of statistical relaxation in interaction quench dynamics of ultracold bosons. <i>Physical Review A</i> , 2015, 92, .	2.5	28
31	Resonances and Dynamical Fragmentation in a Stirred Bose-Einstein Condensate. <i>Journal of Low Temperature Physics</i> , 2015, 181, 171-181.	1.4	27
32	Vortex Reconnections in Anisotropic Trapped Three-Dimensional Bose-Einstein Condensates. <i>Journal of Low Temperature Physics</i> , 2015, 180, 133-143.	1.4	17
33	Tunneling Dynamics in Open Ultracold Bosonic Systems. <i>Springer Theses</i> , 2015, , .	0.1	21
34	Quantum Many-Body Dynamics of Trapped Bosons with the MCTDHB Package: Towards New Horizons with Novel Physics. , 2015, , 63-86.		4
35	Theoretical Considerations and Analytical Models on the Many-Body Physics of Tunneling Bosons. <i>Springer Theses</i> , 2015, , 63-73.	0.1	0
36	Benchmarks with Analytically Solvable Problems. <i>Springer Theses</i> , 2015, , 35-53.	0.1	0

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37	Tunneling of a Many-Boson System to Open Space Without a Threshold. Springer Theses, 2015, , 75-88.	0.1	0
38	Theoretical Concepts and Numerical Methods. Springer Theses, 2015, , 9-34.	0.1	0
39	Controlling the velocities and the number of emitted particles in the tunneling to open space dynamics. Physical Review A, 2014, 89, .	2.5	21
40	Breaking the resilience of a two-dimensional Bose-Einstein condensate to fragmentation. Physical Review A, 2014, 90, .	2.5	31
41	Elastic scattering of a Bose-Einstein condensate at a potential landscape. Journal of Physics: Conference Series, 2014, 488, 012032.	0.4	11
42	Excitation spectra of many-body systems by linear response: General theory and applications to trapped condensates. Physical Review A, 2013, 88, .	2.5	32
43	Numerically-Exact SchrÅrdinger Dynamics of Closed and Open Many-Boson Systems with the MCTDHB Package. , 2013, , 81-92.		4
44	How an interacting many-body system tunnels through a potential barrier to open space. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13521-13525.	7.1	55
45	Numerically exact quantum dynamics of bosons with time-dependent interactions of harmonic type. Physical Review A, 2012, 86, .	2.5	92
46	Wave chaos as signature for depletion of a Bose-Einstein condensate. Physical Review A, 2012, 86, .	2.5	46
47	Recursive formulation of the multiconfigurational time-dependent Hartree method for fermions, bosons and mixtures thereof in terms of one-body density operators. Chemical Physics, 2012, 401, 2-14.	1.9	23
48	Exact decay and tunnelling dynamics of interacting few-boson systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 029802-029802.	1.5	7
49	Exact decay and tunnelling dynamics of interacting few-boson systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 044018.	1.5	36