Uwe-Jens Wiese

List of Publications by Year
in descending order

56	3,316	279798	175258
papers	citations	23	52
		h-index	g-index

56	56	56	1770
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	From quantum link models to D-theory: a resource efficient framework for the quantum simulation and computation of gauge theories. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210068.	3.4	17
2	Nematic confined phases in the U(1) quantum link model on a triangular lattice: Near-term quantum computations of string dynamics on a chip. Physical Review Research, 2022, 4, .	3.6	9
3	Canonical quantization on the half-line and in an interval based upon an alternative concept for the momentum in a space with boundaries. Physical Review Research, 2021, 3, .	3.6	6
4	Alternative momentum concept for a quantum mechanical particle in a box. Physical Review Research, 2021, 3, .	3.6	2
5	Simulating lattice gauge theories within quantum technologies. European Physical Journal D, 2020, 74, 1.	1.3	272
6	$SO(3)$ "Nuclear Physics" with ultracold Gases. Annals of Physics, 2018, 393, 466-483.	2.8	28
7	$SU(3)$ quantum spin ladders as a regularization of the $\dots$	2.8	7
8	From the $SU(\dots)$ quantum link model on the honeycomb lattice to the quantum dimer model on the kagome lattice: Phase transition and fractionalized flux strings. Physical Review B, 2018, 97, .	3.2	15
9	Majorana fermions in a box. Physical Review D, 2017, 95, .	4.7	11
10	Doubled lattice Chern–Simons–Yang–Mills theories with discrete gauge group. Annals of Physics, 2016, 374, 255-290.	2.8	4
11	Real-time evolution of strongly coupled fermions driven by dissipation. Annals of Physics, 2016, 372, 309-319.	2.8	3
12	Finite-volume energy spectrum, fractionalized strings, and low-energy effective field theory for the quantum dimer model on the square lattice. Physical Review B, 2016, 94, .	3.2	18
13	$\mathbb{C}P(N)$ $\dots$	2.8	10
14	Real-time simulation of nonequilibrium transport of magnetization in large open quantum spin systems driven by dissipation. Physical Review B, 2015, 92, .	3.2	7
15	Holes localized on a Skyrmion in a doped antiferromagnet on the honeycomb lattice: Symmetry analysis. Annals of Physics, 2015, 354, 213-243.	2.8	3
16	Real-time dynamics of open quantum spin systems driven by dissipative processes. Physical Review B, 2015, 92, .	3.2	9
17	Real-time simulation of large open quantum spin systems driven by dissipation. Physical Review B, 2014, 90, .	3.2	7
18	Two-dimensional lattice gauge theories with superconducting quantum circuits. Annals of Physics, 2014, 351, 634-654.	2.8	93

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19	Interfaces, strings, and a soft mode in the square lattice quantum dimer model. Physical Review B, 2014, 90, .	3.2	30
20	Asymptotic freedom, dimensional transmutation, and an infrared conformal fixed point for the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î´</mml:mi></mml:mrow></mml:math>-function potential in one-dimensional relativistic quantum mechanics. Physical Review D, 2014, 89, .	4.7	18
21	Towards quantum simulating QCD. Nuclear Physics A, 2014, 931, 246-256.	1.5	78
22	Crystalline confinement. , 2014, , .		4
23	Topological lattice actions for the 2d XY model. Journal of High Energy Physics, 2013, 2013, 1.	4.7	9
24	Supersymmetric descendants of self-adjointly extended quantum mechanical Hamiltonians. Annals of Physics, 2013, 337, 1-24.	2.8	3
25	Atomic quantum simulation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="bold">U</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>N</mml:mi><mml:mo stretchy="false">)</mml:mo></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>SU</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>N</mml:mi><mml:mo stretchy="false">)</mml:mo></mml:math>	7.8	217
26	Ultracold quantum gases and lattice systems: quantum simulation of lattice gauge theories. Annalen Der Physik, 2013, 525, 777-796.	2.4	257
27	The (2 + 1)-d *U*(1) quantum link model masquerading as deconfined criticality. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P12010.	2.3	42
28	Symmetry analysis of holes localized on a skyrmion in a doped antiferromagnet. Physical Review B, 2012, 86, .	3.2	10
29	Systematic low-energy effective field theory for magnons and holes in an antiferromagnet on the honeycomb lattice. Physical Review B, 2012, 85, .	3.2	9
30	Non-trivial Î¸-vacuum effects in the 2-d O(3) model. Journal of High Energy Physics, 2012, 2012, 1.	4.7	17
31	Drastic reduction of cutoff effects in 2-d lattice O(N) models. Journal of High Energy Physics, 2012, 2012, 1.	4.7	6
32	Atomic Quantum Simulation of Dynamical Gauge Fields Coupled to Fermionic Matter: From String Breaking to Evolution after a Quench. Physical Review Letters, 2012, 109, 175302.	7.8	241
33	Self-adjoint extensions for confined electrons: From a particle in a spherical cavity to the hydrogen atom in a sphere and on a cone. Annals of Physics, 2012, 327, 2742-2759.	2.8	24
34	From a particle in a box to the uncertainty relation in a quantum dot and to reflecting walls for relativistic fermions. Annals of Physics, 2012, 327, 1-28.	2.8	36
35	Linear broadening of the confining string in Yang-Mills theory at low temperature. Journal of High Energy Physics, 2011, 2011, 1.	4.7	23
36	The width of the color flux tube at 2-loop order. Journal of High Energy Physics, 2010, 2010, 1.	4.7	26

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37	Topological lattice actions. Journal of High Energy Physics, 2010, 2010, 1.	4.7	33
38	Microscopic model versus systematic low-energy effective field theory for a doped quantum ferromagnet. Physical Review B, 2010, 81, .	3.2	8
39	Systematic effective field theory investigation of spiral phases in hole-doped antiferromagnets on the honeycomb lattice. European Physical Journal B, 2009, 69, 473-482.	1.5	13
40	Rotor spectra, berry phases, and monopole fields: From antiferromagnets to QCD. Physical Review D, 2008, 78, .	4.7	11
41	Homogeneous versus spiral phases of hole-doped antiferromagnets: A systematic effective field theory investigation. Physical Review B, 2007, 75, .	3.2	22
42	Systematic low-energy effective field theory for electron-doped antiferromagnets. Physical Review B, 2007, 75, .	3.2	19
43	Magnon-mediated binding between holes in an antiferromagnet. European Physical Journal B, 2006, 53, 433-437.	1.5	20
44	Two-hole bound states from a systematic low-energy effective field theory for magnons and holes in an antiferromagnet. Physical Review B, 2006, 74, .	3.2	33
45	Computational Complexity and Fundamental Limitations to Fermionic Quantum Monte Carlo Simulations. Physical Review Letters, 2005, 94, 170201.	7.8	799
46	Study ofCP(Nâˆ'1)Î¸-Vacua by Cluster Simulation ofSU(N)Quantum Spin Ladders. Physical Review Letters, 2005, 94, 010603.	7.8	34
47	D-theory: field quantization by dimensional reduction of discrete variables. Nuclear Physics B, 2004, 693, 149-175.	2.5	50
48	CLUSTER ALGORITHM SOLUTION OF SIGN AND COMPLEX ACTION PROBLEMS. International Journal of Modern Physics B, 2003, 17, 5435-5447.	2.0	2
49	COMPLEX ACTION PROBLEMS IN MODELS FOR QCD AT FINITE DENSITY. , 2003, , .		0
50	CLUSTER ALGORITHM SOLUTION OF SIGN AND COMPLEX ACTION PROBLEMS. , 2002, , .		0
51	THE CENTER SYMMETRY AND ITS SPONTANEOUS BREAKDOWN AT HIGH TEMPERATURES. , 2001, , 1909-1944.		3
52	Meron-Cluster Solution of Fermion Sign Problems. Physical Review Letters, 1999, 83, 3116-3119.	7.8	172
53	QCD as a quantum link model. Physical Review D, 1999, 60, .	4.7	125
54	Monte-Carlo study of correlations in quantum spin chains at non-zero temperature. European Physical Journal B, 1998, 4, 291-297.	1.5	50

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55	Square-Lattice Heisenberg Antiferromagnet at Very Large Correlation Lengths. Physical Review Letters, 1998, 80, 1742-1745.	7.8	116
56	Quantum link models: A discrete approach to gauge theories. Nuclear Physics B, 1997, 492, 455-471.	2.5	217