

Anders W Sandvik

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147
papers

6,522
citations

41
h-index

77
g-index

152
ext. papers

7,602
ext. citations

4.7
avg, IF

6.54
L-index

#	Paper	IF	Citations
147	Quantum Monte Carlo with directed loops. <i>Physical Review E</i> , 2002 , 66, 046701	2.4	570
146	Stochastic series expansion method with operator-loop update. <i>Physical Review B</i> , 1999 , 59, R14157-R14160	3.6	516
145	Quantum Monte Carlo simulation method for spin systems. <i>Physical Review B</i> , 1991 , 43, 5950-5961	3.3	360
144	Finite-size scaling of the ground-state parameters of the two-dimensional Heisenberg model. <i>Physical Review B</i> , 1997 , 56, 11678-11690	3.3	321
143	Evidence for deconfined quantum criticality in a two-dimensional Heisenberg model with four-spin interactions. <i>Physical Review Letters</i> , 2007 , 98, 227202	7.4	312
142	Computational Studies of Quantum Spin Systems 2010 ,		219
141	Bond-order-wave phase and quantum phase transitions in the one-dimensional extended Hubbard model. <i>Physical Review B</i> , 2002 , 65,	3.3	162
140	Stochastic method for analytic continuation of quantum Monte Carlo data. <i>Physical Review B</i> , 1998 , 57, 10287-10290	3.3	143
139	Antiferromagnetic to valence-bond-solid transitions in two-dimensional SU(N) Heisenberg models with multispin interactions. <i>Physical Review B</i> , 2009 , 80,	3.3	137
138	Continuous quantum phase transition between an antiferromagnet and a valence-bond solid in two dimensions: evidence for logarithmic corrections to scaling. <i>Physical Review Letters</i> , 2010 , 104, 177201	7.4	117
137	Quantum criticality with two length scales. <i>Science</i> , 2016 , 352, 213-6	33.3	109
136	High-precision finite-size scaling analysis of the quantum-critical point of S=1 $\bar{2}$ Heisenberg antiferromagnetic bilayers. <i>Physical Review B</i> , 2006 , 73,	3.3	109
135	Specific heat of quasi-two-dimensional antiferromagnetic Heisenberg models with varying interplanar couplings. <i>Physical Review B</i> , 2003 , 68,	3.3	102
134	Classical percolation transition in the diluted two-dimensional S=12 Heisenberg antiferromagnet. <i>Physical Review B</i> , 2002 , 66,	3.3	102
133	Ground state phases of the half-filled one-dimensional extended hubbard model. <i>Physical Review Letters</i> , 2004 , 92, 236401	7.4	89
132	Multichain Mean-Field Theory of Quasi-One-Dimensional Quantum Spin Systems. <i>Physical Review Letters</i> , 1999 , 83, 3069-3072	7.4	88
131	High-energy magnon dispersion and multimagnon continuum in the two-dimensional Heisenberg antiferromagnet. <i>Physical Review Letters</i> , 2001 , 86, 528-31	7.4	85

130	Loop updates for variational and projector quantum Monte Carlo simulations in the valence-bond basis. <i>Physical Review B</i> , 2010 , 82,	3.3	83
129	Stochastic series expansion method for quantum Ising models with arbitrary interactions. <i>Physical Review E</i> , 2003 , 68, 056701	2.4	82
128	Ground state projection of quantum spin systems in the valence-bond basis. <i>Physical Review Letters</i> , 2005 , 95, 207203	7.4	82
127	Lattice model for the SU(N) Nél to valence-bond solid quantum phase transition at large N. <i>Physical Review Letters</i> , 2012 , 108, 137201	7.4	79
126	Bridging Lattice-Scale Physics and Continuum Field Theory with Quantum Monte Carlo Simulations. <i>Annual Review of Condensed Matter Physics</i> , 2013 , 4, 179-215	19.7	78
125	Critical Temperature and the Transition from Quantum to Classical Order Parameter Fluctuations in the Three-Dimensional Heisenberg Antiferromagnet. <i>Physical Review Letters</i> , 1998 , 80, 5196-5199	7.4	74
124	Ashkin-teller criticality and pseudo-first-order behavior in a frustrated Ising model on the square lattice. <i>Physical Review Letters</i> , 2012 , 108, 045702	7.4	71
123	Sign problem in Monte Carlo simulations of frustrated quantum spin systems. <i>Physical Review B</i> , 2000 , 62, 1102-1113	3.3	69
122	Duality between the Deconfined Quantum-Critical Point and the Bosonic Topological Transition. <i>Physical Review X</i> , 2017 , 7,	9.1	63
121	Some formal results for the valence bond basis. <i>Nuclear Physics B</i> , 2006 , 750, 142-178	2.8	59
120	Finite-size scaling and boundary effects in two-dimensional valence-bond solids. <i>Physical Review B</i> , 2012 , 85,	3.3	57
119	Possible exotic phases in the one-dimensional extended Hubbard model. <i>Physical Review B</i> , 1999 , 59, 4665-4679	3.3	53
118	Ground-state parameters, finite-size scaling, and low-temperature properties of the two-dimensional S=12 XY model. <i>Physical Review B</i> , 1999 , 60, 6588-6593	3.3	53
117	Emergence of U(1) symmetry in the 3D XY model with Z _q anisotropy. <i>Physical Review Letters</i> , 2007 , 99, 207203	7.4	51
116	Properties of resonating-valence-bond spin liquids and critical dimer models. <i>Physical Review B</i> , 2011 , 84,	3.3	50
115	Multicritical point in a diluted bilayer Heisenberg quantum antiferromagnet. <i>Physical Review Letters</i> , 2002 , 89, 177201	7.4	50
114	Phase transitions in the frustrated Ising model on the square lattice. <i>Physical Review B</i> , 2013 , 87,	3.3	49
113	Spin-Peierls Transition in the Heisenberg Chain with Finite-Frequency Phonons. <i>Physical Review Letters</i> , 1999 , 83, 195-198	7.4	49

112	Nearly Deconfined Spinon Excitations in the Square-Lattice Spin-1/2 Heisenberg Antiferromagnet. <i>Physical Review X</i> , 2017 , 7,	9.1	48
111	Ground states of a frustrated quantum spin chain with long-range interactions. <i>Physical Review Letters</i> , 2010 , 104, 137204	7.4	47
110	Site dilution of quantum spins in the honeycomb lattice. <i>Physical Review B</i> , 2006 , 73,	3.3	47
109	Critical Level Crossings and Gapless Spin Liquid in the Square-Lattice Spin-1/2 $J_{\{1\}}-J_{\{2\}}$ Heisenberg Antiferromagnet. <i>Physical Review Letters</i> , 2018 , 121, 107202	7.4	46
108	Correlations and confinement in nonplanar two-dimensional dimer models. <i>Physical Review B</i> , 2006 , 73,	3.3	43
107	Spin dynamics of SrCu ₂ O ₃ and the Heisenberg ladder. <i>Physical Review B</i> , 1996 , 53, R2934-R2937	3.3	42
106	Dynamic scaling at classical phase transitions approached through nonequilibrium quenching. <i>Physical Review B</i> , 2014 , 89,	3.3	41
105	Quantum critical behavior in a two-layer antiferromagnet. <i>Physical Review B</i> , 1995 , 51, 16483-16486	3.3	40
104	NMR relaxation rates for the spin-1/2 Heisenberg chain. <i>Physical Review B</i> , 1995 , 52, R9831-R9834	3.3	39
103	Constrained sampling method for analytic continuation. <i>Physical Review E</i> , 2016 , 94, 063308	2.4	39
102	Susceptibility of the 2D spin-1 / 2 Heisenberg antiferromagnet with an impurity. <i>Physical Review Letters</i> , 2003 , 91, 077204	7.4	38
101	Dynamical signature of fractionalization at a deconfined quantum critical point. <i>Physical Review B</i> , 2018 , 98,	3.3	38
100	Magnetic raman scattering in two-dimensional spin-1/2 Heisenberg antiferromagnets: Spectral shape anomaly and magnetostrictive effects. <i>Physical Review Letters</i> , 1995 , 75, 553-556	7.4	37
99	1/N expansion for two-dimensional quantum ferromagnets. <i>Physical Review B</i> , 1998 , 58, 1464-1484	3.3	34
98	Confinement in the Bulk, Deconfinement on the Wall: Infrared Equivalence between Compactified QCD and Quantum Magnets. <i>Physical Review Letters</i> , 2017 , 119, 091601	7.4	33
97	Finite-size scaling method for the Berezinskii-Kosterlitz-Thouless transition. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013 , 2013, P09001	1.9	33
96	Strong through-space two-halide magnetic exchange of -234 K in (2,5-dimethylpyrazine)copper(II) bromide. <i>Chemical Communications</i> , 2009 , 1359-61	5.8	32
95	Peierls transition in the presence of finite-frequency phonons in the one-dimensional extended Peierls-Hubbard model at half-filling. <i>Physical Review B</i> , 2003 , 67,	3.3	32

94	Example of a first-order Nöel to valence-bond-solid transition in two dimensions. <i>Physical Review B</i> , 2010 , 82,	3-3	31
93	Variational ground states of two-dimensional antiferromagnets in the valence bond basis. <i>Physical Review B</i> , 2007 , 76,	3-3	31
92	Quantum versus classical annealing: insights from scaling theory and results for spin glasses on 3-regular graphs. <i>Physical Review Letters</i> , 2015 , 114, 147203	7-4	30
91	Amplitude Mode in Three-Dimensional Dimerized Antiferromagnets. <i>Physical Review Letters</i> , 2017 , 118, 147207	7-4	30
90	Disorder induced phase transition in a two-dimensional random quantum antiferromagnet. <i>Physical Review Letters</i> , 1995 , 74, 1226-1229	7-4	29
89	Symmetry-enhanced discontinuous phase transition in a two-dimensional quantum magnet. <i>Nature Physics</i> , 2019 , 15, 678-682	16.2	28
88	Method to characterize spinons as emergent elementary particles. <i>Physical Review Letters</i> , 2011 , 107, 157201	7-4	28
87	Numerical calculations of the B1g Raman spectrum of the two-dimensional Heisenberg model. <i>Physical Review B</i> , 1998 , 57, 8478-8493	3-3	28
86	Symmetry breaking and criticality in tensor-product states. <i>Physical Review B</i> , 2010 , 82,	3-3	26
85	Impurity induced spin texture in quantum critical 2D antiferromagnets. <i>Physical Review Letters</i> , 2007 , 98, 087203	7-4	25
84	Impurity effects at finite temperature in the two-dimensional $S=1/2$ Heisenberg antiferromagnet. <i>Physical Review B</i> , 2004 , 70,	3-3	25
83	Monte Carlo study of a two-dimensional quantum ferromagnet. <i>Physical Review B</i> , 2000 , 61, 364-374	3-3	25
82	Spin dynamics of La_2CuO_4 and the two-dimensional Heisenberg model. <i>Physical Review B</i> , 1995 , 51, 9403-9406	3-3	25
81	Confinement and deconfinement of spinons in two dimensions. <i>Physical Review Letters</i> , 2013 , 110, 217213	7-4	24
80	Low-energy excitations of two-dimensional diluted Heisenberg quantum antiferromagnets. <i>Physical Review B</i> , 2010 , 81,	3-3	24
79	Comment on "Ground-state phase diagram of a half-filled one-dimensional extended Hubbard model". <i>Physical Review Letters</i> , 2003 , 91, 089701; discussion 089702	7-4	24
78	Quantum criticality and percolation in dimer-diluted two-dimensional antiferromagnets. <i>Physical Review Letters</i> , 2006 , 96, 207201	7-4	23
77	Quasi-adiabatic quantum Monte Carlo algorithm for quantum evolution in imaginary time. <i>Physical Review B</i> , 2013 , 87,	3-3	22

76	Crossover effects in the random-exchange spin-12 antiferromagnetic chain. <i>Physical Review B</i> , 2004 , 70,	3-3	21
75	Random-Singlet Phase in Disordered Two-Dimensional Quantum Magnets. <i>Physical Review X</i> , 2018 , 8,	9-1	21
74	Level spectroscopy in a two-dimensional quantum magnet: Linearly dispersing spinons at the deconfined quantum critical point. <i>Physical Review B</i> , 2016 , 94,	3-3	20
73	Velocity of excitations in ordered, disordered, and critical antiferromagnets. <i>Physical Review B</i> , 2015 , 92,	3-3	20
72	Thermodynamics of a gas of deconfined bosonic spinons in two dimensions. <i>Physical Review Letters</i> , 2011 , 106, 207203	7-4	20
71	Comment on "quantum phase transition of the randomly diluted Heisenberg antiferromagnet on a square lattice". <i>Physical Review Letters</i> , 2001 , 86, 3209-10	7-4	20
70	Effects of intrabilayer coupling on the magnetic properties of YBa ₂ Cu ₃ O ₆ . <i>Physical Review B</i> , 1996 , 53, R526-R529	3-3	20
69	Multiplicative logarithmic corrections to quantum criticality in three-dimensional dimerized antiferromagnets. <i>Physical Review B</i> , 2015 , 92,	3-3	19
68	Stochastic series expansion algorithm for the S = 1/2 XY model with four-site ring exchange. <i>Physical Review E</i> , 2005 , 72, 026702	2-4	19
67	Low-energy dynamics of the two-dimensional S=1/2 Heisenberg antiferromagnet on percolating clusters. <i>Physical Review Letters</i> , 2006 , 97, 117204	7-4	18
66	Scaling and Diabatic Effects in Quantum Annealing with a D-Wave Device. <i>Physical Review Letters</i> , 2020 , 124, 090502	7-4	15
65	Universal dynamic scaling in three-dimensional Ising spin glasses. <i>Physical Review E</i> , 2015 , 92, 022128	2-4	15
64	Universal Néel temperature in three-dimensional quantum antiferromagnets. <i>Physical Review B</i> , 2012 , 85,	3-3	15
63	Properties of the random-singlet phase: From the disordered Heisenberg chain to an amorphous valence-bond solid. <i>Physical Review B</i> , 2016 , 94,	3-3	15
62	Detecting Signals of Weakly First-order Phase Transitions in Two-dimensional Potts Models. <i>Journal of the Physical Society of Japan</i> , 2019 , 88, 034006	1-5	14
61	Dynamical properties of the S=12 random Heisenberg chain. <i>Physical Review B</i> , 2018 , 97,	3-3	14
60	Magnetic ordering in a doped frustrated spin-Peierls system. <i>Physical Review B</i> , 2004 , 69,	3-3	14
59	Quantum phase transitions in disordered dimerized quantum spin models and the Harris criterion. <i>Physical Review B</i> , 2010 , 82,	3-3	13

58	Impurity-induced frustration in correlated oxides. <i>Physical Review Letters</i> , 2009 , 102, 167201	7.4	13
57	Plaquette renormalization scheme for tensor network states. <i>Physical Review E</i> , 2011 , 83, 056703	2.4	13
56	Anomalous curie response of impurities in quantum-critical spin-1/2 Heisenberg antiferromagnets. <i>Physical Review Letters</i> , 2007 , 99, 027205	7.4	13
55	Valence bond solid phases in a cubic antiferromagnet. <i>Physical Review Letters</i> , 2007 , 99, 047202	7.4	13
54	Quantum Phases of SrCu ₂ (BO ₃) ₂ from High-Pressure Thermodynamics. <i>Physical Review Letters</i> , 2020 , 124, 206602	7.4	12
53	Thermal valence-bond-solid transition of quantum spins in two dimensions. <i>Physical Review B</i> , 2013 , 87,	3.3	12
52	Anomalous Quantum-Critical Scaling Corrections in Two-Dimensional Antiferromagnets. <i>Physical Review Letters</i> , 2018 , 121, 117202	7.4	12
51	Anomalous quantum glass of bosons in a random potential in two dimensions. <i>Physical Review Letters</i> , 2015 , 114, 105303	7.4	11
50	Edge effects in the two-dimensional spin-12 Heisenberg antiferromagnet. <i>Physical Review B</i> , 2009 , 79,	3.3	11
49	Emergent topological excitations in a two-dimensional quantum spin system. <i>Physical Review B</i> , 2015 , 91,	3.3	10
48	Field-driven quantum phase transitions in S=12 spin chains. <i>Physical Review B</i> , 2017 , 95,	3.3	10
47	Quantum Monte Carlo studies of spinons in one-dimensional spin systems. <i>Physical Review B</i> , 2015 , 92,	3.3	10
46	Correlated valence-bond states. <i>Physical Review B</i> , 2012 , 86,	3.3	10
45	NMR relaxation in the spin-1 Heisenberg chain. <i>Physical Review B</i> , 2019 , 100,	3.3	9
44	Consistent Scaling Exponents at the Deconfined Quantum-Critical Point. <i>Chinese Physics Letters</i> , 2020 , 37, 057502	1.8	9
43	Criticality and Mott glass phase in a disordered two-dimensional quantum spin system. <i>Physical Review B</i> , 2014 , 90,	3.3	9
42	Dual time scales in simulated annealing of a two-dimensional Ising spin glass. <i>Physical Review E</i> , 2017 , 95, 052133	2.4	8
41	Definitions of entanglement entropy of spin systems in the valence-bond basis. <i>Physical Review B</i> , 2010 , 82,	3.3	8

40	Monte Carlo Renormalization Flows in the Space of Relevant and Irrelevant Operators: Application to Three-Dimensional Clock Models. <i>Physical Review Letters</i> , 2020 , 124, 080602	7-4	7
39	Existence of a Spectral Gap in the Affleck-Kennedy-Lieb-Tasaki Model on the Hexagonal Lattice. <i>Physical Review Letters</i> , 2020 , 124, 177204	7-4	7
38	Dynamic scaling of topological ordering in classical systems. <i>Physical Review B</i> , 2018 , 97,	3-3	7
37	Numerical investigations of SO(4) emergent extended symmetry in spin-12 Heisenberg antiferromagnetic chains. <i>Physical Review B</i> , 2018 , 98,	3-3	7
36	Metamagnetism and zero-scale-factor universality in the two-dimensional JQ model. <i>Physical Review B</i> , 2018 , 98,	3-3	7
35	Multicritical Deconfined Quantum Criticality and Lifshitz Point of a Helical Valence-Bond Phase. <i>Physical Review Letters</i> , 2020 , 125, 257204	7-4	7
34	Tunable deconfined quantum criticality and interplay of different valence-bond solid phases. <i>Chinese Physics B</i> , 2020 , 29, 057506	1-2	6
33	Dynamic scaling in the two-dimensional Ising spin glass with normal-distributed couplings. <i>Physical Review E</i> , 2017 , 96, 052102	2-4	5
32	1D valence bond solids in a magnetic field. <i>Journal of Physics: Conference Series</i> , 2015 , 640, 012043	0-3	5
31	Z ₄ to U(1) crossover of the order-parameter symmetry in a two-dimensional valence-bond solid. <i>Physical Review B</i> , 2009 , 80,	3-3	5
30	Scale-renormalized matrix-product states for correlated quantum systems. <i>Physical Review Letters</i> , 2008 , 101, 140603	7-4	5
29	Numerical study of a two-dimensional quantum antiferromagnet with random ferromagnetic bonds. <i>Physical Review B</i> , 1994 , 50, 15803-15807	3-3	5
28	Valence-bond solids, vestigial order, and emergent SO(5) symmetry in a two-dimensional quantum magnet. <i>Physical Review Research</i> , 2020 , 2,	3-9	5
27	Unconventional U(1) to Z _q crossover in quantum and classical q-state clock models. <i>Physical Review B</i> , 2021 , 103,	3-3	5
26	Hilbert space fragmentation and Ashkin-Teller criticality in fluctuation coupled Ising models. <i>Physical Review B</i> , 2020 , 101,	3-3	4
25	The AKLT Model on a Hexagonal Chain is Gapped. <i>Journal of Statistical Physics</i> , 2019 , 177, 1077-1088	1-5	4
24	Dynamic scaling of the restoration of rotational symmetry in Heisenberg quantum antiferromagnets. <i>Physical Review B</i> , 2017 , 96,	3-3	4
23	Error reduction using covariance in quantum Monte Carlo simulations. <i>Physical Review B</i> , 1996 , 54, 14910-14913	3-3	4

22	Extreme Suppression of Antiferromagnetic Order and Critical Scaling in a Two-Dimensional Random Quantum Magnet. <i>Physical Review Letters</i> , 2021 , 126, 037201	7.4	4
21	Pair hopping in systems of strongly interacting hard-core bosons. <i>Physical Review B</i> , 2019 , 100,	3.3	3
20	Comment on Gapless spin liquid ground state of the spin-12 J1J2 Heisenberg model on square lattices <i>Physical Review B</i> , 2020 , 101,	3.3	3
19	Indicators of conformal field theory: Entanglement entropy and multiple-point correlators. <i>Physical Review B</i> , 2017 , 96,	3.3	3
18	Role of winding numbers in quantum Monte Carlo simulations. <i>Physical Review B</i> , 1998 , 57, 13382-13385	3.3	3
17	Emergent O(4) symmetry at the phase transition from plaquette-singlet to antiferromagnetic order in quasi-two-dimensional quantum magnets*. <i>Chinese Physics B</i> , 2021 , 30, 067505	1.2	3
16	Modulated phases in a three-dimensional Maier-Saupe model with competing interactions. <i>Physical Review E</i> , 2017 , 96, 012137	2.4	2
15	Effects of edge disorder in nanoscale antiferromagnetic clusters. <i>Physical Review B</i> , 2010 , 82,	3.3	2
14	The Directed-Loop Algorithm. <i>AIP Conference Proceedings</i> , 2003 ,	0	2
13	Quantum-critical scaling properties of the two-dimensional random-singlet state. <i>Physical Review B</i> , 2020 , 102,	3.3	2
12	Typicality at quantum-critical points. <i>Chinese Physics B</i> , 2018 , 27, 087501	1.2	2
11	Quantum criticality and spin liquid phase in the Shastry-Sutherland model. <i>Physical Review B</i> , 2022 , 105,	3.3	2
10	Temperature dependence of the [Formula: see text] anomaly in the excitation spectrum of the 2D quantum Heisenberg antiferromagnet. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 374007	1.8	1
9	Mott glass phase in a diluted bilayer Heisenberg quantum antiferromagnet. <i>Journal of Physics: Conference Series</i> , 2015 , 640, 012045	0.3	1
8	Antiferromagnetic order in systems with doublet Stot=12 ground states. <i>Physical Review B</i> , 2012 , 86,	3.3	1
7	Quantum Monte Carlo simulations of bosonic and fermionic impurities in a two-dimensional hard-core boson system. <i>Physical Review Letters</i> , 2008 , 101, 120405	7.4	1
6	Z2 topological order and first-order quantum phase transitions in systems with combinatorial gauge symmetry. <i>Physical Review B</i> , 2021 , 104,	3.3	1
5	An introduction to quantum monte carlo methods 1997 , 109-135		0

- 4 Topological properties of a Valence-Bond-Solid. *Journal of Physics: Conference Series*, **2015**, 640, 012048 0.3
- 3 Antiferromagnetism induced by non-magnetic dopants in coupled spinPeierls chains. *Journal of Physics Condensed Matter*, **2004**, 16, 6747-6753 1.8
- 2 Finite-Size Scaling in the Diluted Two-Dimensional Heisenberg Antiferromagnet. *Progress of Theoretical Physics Supplement*, **2002**, 145, 332-338
- 1 From Finite Temperature Many-Body Perturbation Theory to Series Expansions and Monte Carlo Simulations. *Springer Proceedings in Physics*, **1999**, 71-83 0.2