

# Karen Hallberg

## List of Publications by Year in descending order

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81  
papers

2,086  
citations

257450

24  
h-index

233421

45  
g-index

85  
all docs

85  
docs citations

85  
times ranked

1223  
citing authors

#	ARTICLE	IF	CITATIONS
1	New trends in density matrix renormalization. <i>Advances in Physics</i> , 2006, 55, 477-526.	14.4	302
2	Density-matrix algorithm for the calculation of dynamical properties of low-dimensional systems. <i>Physical Review B</i> , 1995, 52, R9827-R9830.	3.2	160
3	Shadow Band in the One-Dimensional Infinite-U Hubbard Model. <i>Physical Review Letters</i> , 1996, 77, 1390-1393.	7.8	109
4	Dynamical Mean Field Theory with the Density Matrix Renormalization Group. <i>Physical Review Letters</i> , 2004, 93, 246403.	7.8	91
5	Phase Diagram of Electronic Models for Transition Metal Oxides in One Dimension. <i>Physical Review Letters</i> , 1997, 79, 713-716.	7.8	89
6	Spin-Orbit Coupling and Electron Spin Resonance Theory for Carbon Nanotubes. <i>Physical Review Letters</i> , 2002, 88, 206402.	7.8	84
7	Spectral functions of the one-dimensional Hubbard model in the $U \rightarrow \infty$ limit: How to use the factorized wave function. <i>Physical Review B</i> , 1997, 55, 15475-15488.	3.2	78
8	Critical Behavior of the $S=3/2$ Antiferromagnetic Heisenberg Chain. <i>Physical Review Letters</i> , 1996, 76, 4955-4958.	7.8	74
9	Kondo resonances and Fano antiresonances in transport through quantum dots. <i>Physical Review B</i> , 2002, 65, .	3.2	71
10	Spin filters with Fano dots. <i>European Physical Journal B</i> , 2003, 37, 399-403.	1.5	67
11	Numerical renormalization-group study of the correlation functions of the antiferromagnetic spin-1/2 Heisenberg chain. <i>Physical Review B</i> , 1995, 52, R719-R722.	3.2	63
12	New Type of Charge and Magnetic Order in the Ferromagnetic Kondo Lattice. <i>Physical Review Letters</i> , 2000, 85, 3720-3723.	7.8	50
13	Island phases and charge order in two-dimensional manganites. <i>Physical Review B</i> , 2001, 64, .	3.2	44
14	Superconducting correlations in Hubbard chains with correlated hopping. <i>Physical Review B</i> , 1994, 50, 16044-16051.	3.2	43
15	Spin Order in One-Dimensional Kondo and Hund Lattices. <i>Physical Review Letters</i> , 2004, 93, 177204.	7.8	42
16	Quantum Interference in Coherent Molecular Conductance. <i>Physical Review Letters</i> , 2009, 103, 266807.	7.8	42
17	Specific heat of defects in the Haldane system $Y_2BaNiO_5$ . <i>Physical Review B</i> , 1998, 58, 9248-9251.	3.2	40
18	Phase diagrams from topological transitions: The Hubbard chain with correlated hopping. <i>Physical Review B</i> , 2000, 61, 7883-7886.	3.2	40

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19	Numerical study of charge and spin separation in low-dimensional systems. Physical Review B, 1993, 47, 5849-5853.	3.2	38
20	Spectroscopic and Magnetic Mirages of Impurities in Nanoscopic Systems. Physical Review Letters, 2002, 88, 066802.	7.8	31
21	Detection of Topological Transitions by Transport Through Molecules and Nanodevices. Physical Review Letters, 2004, 93, 076801.	7.8	28
22	Charge and spin inhomogeneous phases in the ferromagnetic Kondo lattice model. Physical Review B, 2002, 65, .	3.2	26
23	Spin-Charge Separation in Aharonov-Bohm Rings of Interacting Electrons. Physical Review Letters, 2004, 93, 067203.	7.8	26
24	Universal scaling in nonequilibrium transport through an Anderson impurity. Physical Review B, 2009, 79, .	3.2	26
25	Interplay between quantum interference and Kondo effects in nonequilibrium transport through nanoscopic systems. Physical Review B, 2011, 84, .	3.2	22
26	Two-impurity Kondo problem for correlated electrons. Physical Review B, 1997, 55, R8646-R8649.	3.2	20
27	Finite-size study of a spin-1/2 Heisenberg chain with competing interactions: Phase diagram and critical behavior. Physical Review B, 1990, 41, 9474-9479.	3.2	19
28	Electron spin resonance of defects in the Haldane system Y <sub>2</sub> BaNiO <sub>5</sub> . Physical Review B, 1999, 60, R12553-R12556.	3.2	19
29	Mirages and enhanced magnetic interactions in quantum corrals. Europhysics Letters, 2002, 58, 899-905.	2.0	19
30	Mott transition in the Hubbard model away from particle-hole symmetry. Physical Review B, 2007, 75, .	3.2	19
31	Features of spin-charge separation in the equilibrium conductance through finite rings. Physical Review B, 2009, 79, .	3.2	19
32	Evidence of quantum criticality in the doped Haldane system Y <sub>2</sub> BaNiO <sub>5</sub> . Physical Review B, 2000, 62, 2998-3001.	3.2	18
33	Fused azulenes as possible organic multiferroics. Physical Review B, 2012, 86, .	3.2	18
34	Density Matrix Renormalization. , 2004, , 3-37.		16
35	Emergent low-energy bound states in the two-orbital Hubbard model. Physical Review B, 2018, 97, .	3.2	14
36	State-of-the-art techniques for calculating spectral functions in models for correlated materials. Europhysics Letters, 2015, 112, 17001.	2.0	12

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37	Solitonic approach to the dimerization problem in correlated one-dimensional systems. <i>Physical Review B</i> , 1997, 56, R8467-R8470.	3.2	11
38	Antiferromagnetic Heisenberg model with anisotropic coupling between nearest and next-nearest neighbors. <i>Physical Review B</i> , 1991, 43, 13668-13671.	3.2	10
39	Static and dynamical properties of a magnetic impurity in a strongly correlated electronic system. <i>Physical Review B</i> , 1995, 52, 374-377.	3.2	10
40	Spin-orbit coupling and electron spin resonance for interacting electrons in carbon nanotubes. <i>Journal of Physics Condensed Matter</i> , 2004, 16, S1437-S1452.	1.8	10
41	Numeric and variational study of the anisotropic Heisenberg antiferromagnet interacting with a magnetic field. <i>Physical Review B</i> , 1992, 46, 3427-3435.	3.2	9
42	Improved parallelization techniques for the density matrix renormalization group. <i>Computer Physics Communications</i> , 2010, 181, 1346-1351.	7.5	9
43	Spin-charge separation in strongly interacting finite ladder rings. <i>Physical Review B</i> , 2008, 78, .	3.2	8
44	Quantum entanglement in elliptical quantum corrals. <i>Physica B: Condensed Matter</i> , 2009, 404, 2819-2821.	2.7	8
45	Superconductivity and Topological Numbers in the Hubbard Chain with Bond-Charge Interaction. <i>Journal of Low Temperature Physics</i> , 1999, 117, 1747-1751.	1.4	7
46	Phase diagram of the extended Hubbard chain with charge-dipole interactions. <i>Physical Review B</i> , 2000, 62, 6991-6996.	3.2	7
47	Metal-insulator transition in correlated systems: A new numerical approach. <i>Physica B: Condensed Matter</i> , 2007, 398, 407-411.	2.7	7
48	The metal-insulator transition in the paramagnetic Hubbard Model. <i>Physica B: Condensed Matter</i> , 2008, 403, 1465-1467.	2.7	7
49	Quantum correlations in nanostructured two-impurity Kondo systems. <i>Physical Review B</i> , 2012, 86, .	3.2	7
50	Static and dynamical properties of elliptical quantum corrals. <i>Physical Review B</i> , 2007, 75, .	3.2	6
51	Solving the Multi-site and Multi-orbital Dynamical Mean Field Theory Using Density Matrix Renormalization. <i>Frontiers in Physics</i> , 2018, 6, .	2.1	6
52	Renormalized dispersing multiplets in the spectrum of nearly Mott localized systems. <i>Physical Review B</i> , 2019, 99, .	3.2	6
53	In-gap band in the one-dimensional two-orbital Kanamori-Hubbard model with interorbital Coulomb interaction. <i>Physical Review Research</i> , 2021, 3, .	3.6	5
54	One-hole spectral densities in the polarizedt-Jmodel. <i>Physical Review B</i> , 1991, 43, 8005-8011.	3.2	4

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55	Phase diagram of the one-dimensional $t\hat{J}$ model. Solid State Communications, 1992, 82, 523-525.	1.9	4
56	Conductance through strongly interacting rings in a magnetic field. Physica B: Condensed Matter, 2009, 404, 2270-2273.	2.7	4
57	Effect of charge-spin separation on the conductance through interacting low-dimensional rings. Physica B: Condensed Matter, 2009, 404, 3147-3150.	2.7	4
58	The two orbital Hubbard model in a square lattice: a DMFT + DMRG approach. Journal of Physics: Conference Series, 2014, 568, 042009.	0.4	4
59	Subbands in the doped two-orbital Kanamori-Hubbard model. Physical Review B, 2020, 102, .	3.2	4
60	Quantum Properties of Elliptical Corrals. Progress of Theoretical Physics Supplement, 2008, 176, 408-423.	0.1	3
61	Flux phases in polarized spin liquids. Physical Review B, 1990, 42, 4827-4830.	3.2	2
62	Variational solution for the spin Heisenberg antiferromagnet with nearest and next nearest neighbor coupling. Solid State Communications, 1992, 84, 585-589.	1.9	2
63	Hole dynamics in generalized spin backgrounds in infinite dimensions. Physical Review B, 1995, 52, 4396-4401.	3.2	2
64	Two-state behaviour of Kondo trimers. Europhysics Letters, 2006, 73, 239-245.	2.0	2
65	Impurities in elliptical quantum corrals. Microelectronics Journal, 2008, 39, 1289-1291.	2.0	2
66	Quantum phase transition between one-channel and two-channel Kondo polarons. Physical Review B, 2013, 88, .	3.2	2
67	Numerical Methods for Nanoscopic Systems Based on Density Matrix Renormalization. Journal of Computational and Theoretical Nanoscience, 2008, 5, 923-941.	0.4	2
68	Crimes against Humanity: The Role of International Courts. PLoS ONE, 2014, 9, e99064.	2.5	2
69	Anyons in spin liquids. Physical Review B, 1991, 43, 10289-10292.	3.2	1
70	Derization problem in conjugated polymers. Synthetic Metals, 1999, 101, 386-387.	3.9	1
71	QUANTUM PROPERTIES IN TRANSPORT THROUGH NANOSCOPIC RINGS: CHARGE-SPIN SEPARATION AND INTERFERENCE EFFECTS. International Journal of Modern Physics B, 2010, 24, 5068-5078.	2.0	1
72	Dynamics of one hole in the polarized $t\hat{J}$ model. Physica B: Condensed Matter, 1991, 171, 82-87.	2.7	0

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73	Zero temperature phase diagram of the ferromagnetic Kondo lattice. Physica B: Condensed Matter, 2002, 320, 30-33.	2.7	0
74	Spectroscopic and magnetic mirages of impurities in nanoscopic systems with focusing properties. Physica B: Condensed Matter, 2002, 320, 354-357.	2.7	0
75	RECENT APPLICATIONS OF THE DMRG METHOD. International Journal of Modern Physics B, 2006, 20, 2624-2635.	2.0	0
76	Transmittance through Aharonov-Bohm Rings: Signature of Spin-Charge Separation. AIP Conference Proceedings, 2006, , .	0.4	0
77	SPIN-CHARGE SEPARATION AND TOPOLOGICAL PHASE TRANSITIONS IN AHARONOV-BOHM RINGS OF INTERACTING ELECTRONS. International Journal of Modern Physics B, 2006, 20, 2651-2655.	2.0	0
78	Correlations, quantum entanglement and interference in nanoscopic systems. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P11031.	2.3	0
79	Metal-insulator transition in the hybridized two-orbital Hubbard model revisited. Journal of Physics: Conference Series, 2018, 1041, 012002.	0.4	0
80	QUANTUM PROPERTIES IN TRANSPORT THROUGH NANOSCOPIC RINGS: CHARGE-SPIN SEPARATION AND INTERFERENCE EFFECTS. , 2011, , .		0
81	Women in science: the need for a global cultural change. Proceedings of the International Astronomical Union, 2019, 15, 281-285.	0.0	0