

Eric Jeckelmann

List of Publications by Year in descending order

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75
papers

2,260
citations

218381

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47
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76
all docs

76
docs citations

76
times ranked

1166
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamical density-matrix renormalization-group method. Physical Review B, 2002, 66, .	1.1	302
2	Density-matrix renormalization-group study of the polaron problem in the Holstein model. Physical Review B, 1998, 57, 6376-6385.	1.1	210
3	Spectral Function of the One-Dimensional Hubbard Model away from Half Filling. Physical Review Letters, 2004, 92, 256401.	2.9	122
4	Ground-State Phase Diagram of a Half-Filled One-Dimensional Extended Hubbard Model. Physical Review Letters, 2002, 89, 236401.	2.9	112
5	Density Matrix Approach to Local Hilbert Space Reduction. Physical Review Letters, 1998, 80, 2661-2664.	2.9	103
6	Optical Conductivity of the Half-Filled Hubbard Chain. Physical Review Letters, 2000, 85, 3910-3913.	2.9	93
7	Metal-insulator transition in the one-dimensional Holstein model at half filling. Physical Review B, 1999, 60, 7950-7955.	1.1	89
8	Excitons in one-dimensional Mott insulators. Physical Review B, 2001, 64, .	1.1	84
9	Metallicity in the half-filled Holstein-Hubbard model. Europhysics Letters, 2008, 84, 57001.	0.7	74
10	Resonant Inelastic X-Ray Scattering of the Holon-Antiholon Continuum in SrCuO ₂ . Physical Review Letters, 2004, 92, 137402.	2.9	69
11	Stripe formation in doped Hubbard ladders. Physical Review B, 2005, 71, .	1.1	62
12	Optical excitations in a one-dimensional Mott insulator. Physical Review B, 2003, 67, .	1.1	61
13	Dynamical properties of the one-dimensional Holstein model. Physical Review B, 1999, 60, 14092-14104.	1.1	59
14	Dynamical density-matrix renormalization group for the Mott-Hubbard insulator in high dimensions. Journal of Physics Condensed Matter, 2004, 16, 7063-7081.	0.7	57
15	Real-time decay of a highly excited charge carrier in the one-dimensional Holstein model. Physical Review B, 2015, 91, .	1.1	50
16	Comparison of different ladder models. Physical Review B, 1998, 58, 9492-9497.	1.1	48
17	Density-matrix renormalization group approach to quantum impurity problems. Journal of Physics Condensed Matter, 2004, 16, 613-625.	0.7	44
18	Spin and charge dynamics of the one-dimensional extended Hubbard model. Physical Review B, 2007, 75, .	1.1	39

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19	The metal-insulator transition in polyacetylene: variational study of the Peierls-Hubbard model. <i>Synthetic Metals</i> , 1994, 65, 211-224.	2.1	38
20	Matrix-product-state method with a dynamical local basis optimization for bosonic systems out of equilibrium. <i>Physical Review B</i> , 2015, 92, .	1.1	38
21	Fourth-order perturbation theory for the half-filled Hubbard model in infinite dimensions. <i>European Physical Journal B</i> , 2003, 36, 491-509.	0.6	37
22	Parallelization strategies for density matrix renormalization group algorithms on shared-memory systems. <i>Journal of Computational Physics</i> , 2004, 194, 795-808.	1.9	37
23	Electronic structure of the spin-1/2 quantum magnet TiOCl. <i>Physical Review B</i> , 2005, 72, .	1.1	34
24	Mott-Peierls transition in the extended Peierls-Hubbard model. <i>Physical Review B</i> , 1998, 57, 11838-11841.	1.1	31
25	Application of the density matrix renormalization group in momentum space. <i>Physical Review B</i> , 2002, 65, .	1.1	30
26	Stripes in a three-chain Hubbard ladder: A comparison of density-matrix renormalization group and constrained-path Monte Carlo results. <i>Physical Review B</i> , 2000, 61, 3251-3254.	1.1	28
27	Differences between hole and electron doping of a two-leg CuO ladder. <i>Physical Review B</i> , 2002, 66, .	1.1	24
28	Grand canonical Peierls transition in In/Si(111). <i>Physical Review B</i> , 2016, 93, .	1.1	23
29	Numerical method for nonlinear steady-state transport in one-dimensional correlated conductors. <i>Physical Review B</i> , 2012, 85, .	1.1	22
30	Density-Matrix Renormalization Group Methods for Momentum- and Frequency-Resolved Dynamical Correlation Functions. <i>Progress of Theoretical Physics Supplement</i> , 2008, 176, 143-164.	0.2	21
31	Current-current correlations in the three-band model for two-leg CuO ladders: Density-matrix renormalization group study. <i>Physical Review B</i> , 2009, 79, .	1.1	20
32	Jeckelmann Replies:. <i>Physical Review Letters</i> , 2003, 91, .	2.9	15
33	Charge and spin Drude weight of the one-dimensional extended Hubbard model at quarter filling. <i>Physical Review B</i> , 2009, 79, .	1.1	15
34	Finite wave vector pairing in doped two-leg ladders. <i>Physical Review B</i> , 2012, 85, .	1.1	15
35	Local density of states of the one-dimensional spinless fermion model. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 014002.	0.7	13
36	Dynamical mean-field theory calculation with the dynamical density-matrix renormalization group. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 283-285.	1.3	10

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37	Anisotropic 2D metallicity: plasmons in Ge(1 \times 0 \times 0)-Au. Journal of Physics Condensed Matter, 2019, 31, 175001.	0.7	10
38	Comparative study of state-of-the-art matrix-product-state methods for lattice models with large local Hilbert spaces without U(1) symmetry. Computer Physics Communications, 2021, 269, 108106.	3.0	10
39	Ground-state and spectral properties of an asymmetric Hubbard ladder. Physical Review B, 2015, 91, .	1.1	8
40	Scattering of an electronic wave packet by a one-dimensional electron-phonon-coupled structure. Physical Review B, 2017, 95, .	1.1	8
41	On the Correlation Effect in Peierls's Hubbard Chains. Journal of the Physical Society of Japan, 2003, 72, 2277-2281.	0.7	7
42	Optical conductivity of the one-dimensional dimerized Hubbard model at quarter filling. European Physical Journal B, 2005, 44, 287-297.	0.6	7
43	Blind deconvolution of density-matrix renormalization-group spectra. Physical Review B, 2014, 89, .	1.1	7
44	Density-matrix renormalization group method for the conductance of one-dimensional correlated systems using the Kubo formula. Physical Review B, 2017, 96, .	1.1	7
45	Comment on "Accurate ground-state phase diagram of the one-dimensional extended Hubbard model at half filling". Physical Review B, 2005, 71, .	1.1	6
46	Solitons in the one-dimensional Peierls-Hubbard model. Synthetic Metals, 1995, 69, 651-653.	2.1	5
47	Optical excitations of Peierls's Mott insulators with bond disorder. Journal of Physics Condensed Matter, 2005, 17, 4093-4110.	0.7	5
48	The spin-Peierls chain revisited. Journal of Magnetism and Magnetic Materials, 2007, 310, 1380-1382.	1.0	5
49	Correlated atomic wires on substrates. II. Application to Hubbard wires. Physical Review B, 2017, 96, .	1.1	5
50	Correlated atomic wires on substrates. I. Mapping to quasi-one-dimensional models. Physical Review B, 2017, 96, .	1.1	5
51	The Hubbard Model and Its Application to Conjugated π -Electron Systems. NATO ASI Series Series B: Physics, 1995, , 393-400.	0.2	5
52	Density-Matrix Renormalization Group Algorithms. , 2008, , 597-619.		4
53	Variational treatment of the one-dimensional Peierls-Hubbard model: Lattice dimerization and solitons. Synthetic Metals, 1993, 57, 4249-4254.	2.1	3
54	Bond Alternation in π -Conjugated Materials. Materials Science Forum, 1995, 191, 71-80.	0.3	3

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55	Matrix-product approach to conjugated polymers. <i>Physical Review B</i> , 2000, 61, 1841-1846.	1.1	3
56	Luttinger liquid and charge density wave phases in a spinless fermion wire on a semiconducting substrate. <i>Physical Review B</i> , 2018, 98, .	1.1	3
57	Correlations and confinement of excitations in an asymmetric Hubbard ladder. <i>European Physical Journal B</i> , 2018, 91, 1.	0.6	3
58	Density-matrix renormalization group study of the linear conductance in quantum wires coupled to interacting leads or phonons. <i>Physical Review B</i> , 2019, 100, .	1.1	3
59	Hole-doped Hubbard ladders. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 319-320.	1.3	2
60	Magnetic properties of alternating Hubbard ladders. <i>Physical Review B</i> , 2021, 103, .	1.1	2
61	Variational study of the metal-insulator transition in polyacetylene. , 1994, , .		1
62	DENSITY-MATRIX RENORMALISATION GROUP FOR DYNAMIC CORRELATION FUNCTIONS. <i>International Journal of Modern Physics B</i> , 2003, 17, 5453-5457.	1.0	1
63	Circulating-current phase in the three-band model for two-leg CuO ladders. <i>Physica C: Superconductivity and Its Applications</i> , 2010, 470, S53-S54.	0.6	1
64	Dimensionality of metallic atomic wires on surfaces. <i>Physical Review B</i> , 2020, 101, .	1.1	1
65	DMRG Investigation of Stripe Formation in Doped Hubbard Ladders. , 2005, , 339-347.		0
66	Methods for electron-phonon systems. , 1999, , 337-344.		0
67	Exact Numerical Treatment of Finite Quantum Systems Using Leading-Edge Supercomputers. , 2005, , 165-177.		0
68	Electronic structure and fluctuation effects in the spin-1/2 quantum magnet TiOCl. <i>European Physical Journal Special Topics</i> , 2005, 131, 331-334.	0.2	0
69	Comparison of computer-algebra strong-coupling perturbation theory and dynamical mean-field theory for the Mott-Hubbard insulator in high dimensions. <i>Physical Review B</i> , 2014, 90, .	1.1	0
70	Grand-canonical Peierls theory for atomic wires on substrates. <i>Physical Review B</i> , 2020, 101, .	1.1	0
71	Effective narrow ladder model for two quantum wires on a semiconducting substrate. <i>Physical Review B</i> , 2021, 103, .	1.1	0
72	Recurrent Variational Approach Applied to the Electronic Structure of Conjugated Polymers. <i>Progress in Theoretical Chemistry and Physics</i> , 2000, , 169-187.	0.2	0

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73	DENSITY-MATRIX RENORMALISATION GROUP FOR DYNAMIC CORRELATION FUNCTIONS. , 2002, , .		0
74	On the Semiconductor-Metal Transition in Conducting Polymers. Springer Series in Solid-state Sciences, 1992, , 16-20.	0.3	0
75	Dynamical Density-Matrix Renormalization Group. , 2008, , 621-635.		0