

Assa Auerbach

List of Publications by Year in descending order

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96
papers

6,751
citations

87723

38
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58464

82
g-index

103
all docs

103
docs citations

103
times ranked

3755
citing authors

#	ARTICLE	IF	CITATIONS
1	Interacting Electrons and Quantum Magnetism. Graduate Texts in Contemporary Physics, 1994, , .	0.2	1,001
2	Functional integral theories of low-dimensional quantum Heisenberg models. Physical Review B, 1988, 38, 316-332.	1.1	797
3	Spin Dynamics in the Square-Lattice Antiferromagnet. Physical Review Letters, 1988, 61, 617-620.	2.9	384
4	Floquet Spectrum and Transport through an Irradiated Graphene Ribbon. Physical Review Letters, 2011, 107, 216601.	2.9	322
5	Kondo Bosons and the Kondo Lattice: Microscopic Basis for the Heavy Fermi Liquid. Physical Review Letters, 1986, 57, 877-880.	2.9	307
6	Extended Heisenberg models of antiferromagnetism: Analogies to the fractional quantum Hall effect. Physical Review Letters, 1988, 60, 531-534.	2.9	265
7	Oscillating Superfluidity of Bosons in Optical Lattices. Physical Review Letters, 2002, 89, 250404.	2.9	189
8	Mesoscopic Fluctuations in the Ground State Energy of Disordered Quantum Dots. Physical Review Letters, 1996, 77, 1123-1126.	2.9	167
9	Visibility of the amplitude (Higgs) mode in condensed matter. Physical Review B, 2011, 84, .	1.1	161
10	Electron-vibron interactions in charged fullerenes. I. Berry phases. Physical Review B, 1994, 49, 12998-13007.	1.1	156
11	Plaquette boson-fermion model of cuprates. Physical Review B, 2002, 65, .	1.1	156
12	Néel transition and sublattice magnetization of pure and doped La_2CuO_4 . Physical Review B, 1992, 45, 7430-7435.	1.1	155
13	The Higgs mode in disordered superconductors close to a quantum phase transition. Nature Physics, 2015, 11, 188-192.	6.5	137
14	Transport through Quantum Melts. Physical Review Letters, 1998, 80, 3352-3355.	2.9	136
15	Relation between persistent currents and the scattering matrix. Physical Review Letters, 1991, 66, 76-79.	2.9	118
16	The path decomposition expansion and multidimensional tunneling. Nuclear Physics B, 1985, 257, 799-858.	0.9	116
17	Superfluids and supersolids on frustrated two-dimensional lattices. Physical Review B, 1997, 55, 3104-3121.	1.1	112
18	Electron-vibron interactions in charged fullerenes. II. Pair energies and spectra. Physical Review B, 1994, 49, 13008-13016.	1.1	107

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19	Singlet Excitations in Pyrochlore: A Study of Quantum Frustration. <i>Physical Review Letters</i> , 2003, 90, 147204.	2.9	105
20	Doped antiferromagnet: The instability of homogeneous magnetic phases. <i>Physical Review B</i> , 1991, 43, 7800-7809.	1.1	98
21	Low-Energy Singlets in the Heisenberg Antiferromagnet on the Kagome Lattice. <i>Physical Review Letters</i> , 2004, 93, 187205.	2.9	83
22	Steady States of a Microwave-Irradiated Quantum-Hall Gas. <i>Physical Review Letters</i> , 2005, 94, 196801.	2.9	81
23	Anomalous isotope dependence of hydrogen diffusion rates on tungsten (110) surfaces: Implications for lattice-hydrogen interactions. <i>Journal of Chemical Physics</i> , 1987, 86, 2356-2361.	1.2	78
24	Assessment of Fermi-liquid description for the normal state of high-Tc superconductors. <i>Physical Review B</i> , 1989, 39, 11633-11647.	1.1	73
25	Small-polaron theory of doped antiferromagnets. <i>Physical Review Letters</i> , 1991, 66, 2262-2265.	2.9	71
26	Tetrahydro(dimethylamino)ethylene-C60: Multicomponent superexchange and Mott ferromagnetism. <i>Physical Review B</i> , 1995, 52, 10114-10121.	1.1	71
27	Fate of the Higgs Mode Near Quantum Criticality. <i>Physical Review Letters</i> , 2013, 110, 140401.	2.9	71
28	Experimental evidence for predicted universal behavior in low-temperature Kondo lattices. <i>Physical Review B</i> , 1986, 34, 3524-3527.	1.1	64
29	Spin transport of weakly disordered Heisenberg chain at infinite temperature. <i>Physical Review B</i> , 2016, 93, .	1.1	61
30	Spontaneous macroscopic magnetization at the superconducting transition temperature of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$. <i>Nature</i> , 2000, 404, 853-855.	13.7	55
31	Quantized Hall insulator: Transverse and longitudinal transport. <i>Physical Review B</i> , 1997, 55, 9817-9823.	1.1	52
32	Dynamics and conductivity near quantum criticality. <i>Physical Review B</i> , 2013, 88, .	1.1	51
33	Conductivity of hard core bosons: A paradigm of a bad metal. <i>Physical Review B</i> , 2010, 81, .	1.1	50
34	Magnetic analog of the isotope effect in cuprates. <i>Physical Review B</i> , 2006, 74, .	1.1	48
35	Hall Resistivity and Dephasing in the Quantum Hall Insulator. <i>Physical Review Letters</i> , 1999, 82, 1253-1256.	2.9	44
36	Universal high-temperature saturation in phonon and electron transport. <i>Physical Review B</i> , 1984, 29, 2884-2890.	1.1	43

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37	Majorana fermions of a two-dimensional $p + ix$ system. Physical Review B, 2009, 79, .	1.1	43
38	Large-amplitude quantum fluctuations and subgap optical absorption in trans-polyacetylene. Physical Review B, 1986, 33, 8171-8179.	1.1	39
39	Path Decomposition for Multidimensional Tunneling. Physical Review Letters, 1984, 53, 411-414.	2.9	38
40	Nonlinear current of strongly irradiated quantum Hall gas. Physical Review B, 2007, 76, .	1.1	38
41	Testing for Majorana Zero Modes in a Superconductor at High Temperature by Tunneling Spectroscopy. Physical Review Letters, 2008, 101, 267002.	2.9	38
42	Theory of antiferromagnetic correlations and neutron-scattering cross section in heavy-fermion metals. Physical Review Letters, 1988, 60, 623-626.	2.9	34
43	The effect of finite resolution on the determination of diffusion coefficients by the field emission fluctuation method. Surface Science, 1986, 167, 493-501.	0.8	29
44	Chiral resonating valence bonds in the kagome antiferromagnet. Physical Review B, 2013, 87, .	1.1	28
45	C ₆₀ : Interacting electrons on a spherical molecule. Physical Review B, 1992, 46, 331-341.	1.1	27
46	Vibrations and Berry phases of charged buckminsterfullerene. Physical Review Letters, 1994, 72, 2931-2934.	2.9	27
47	Quantum tunneling of vortices in two-dimensional condensates. Physical Review B, 2006, 74, .	1.1	21
48	Critical Capacitance and Charge-Vortex Duality Near the Superfluid-to-Insulator Transition. Physical Review Letters, 2014, 113, 240601.	2.9	21
49	Hall Number of Strongly Correlated Metals. Physical Review Letters, 2018, 121, 066601.	2.9	21
50	Multicritical phase diagram and random field effects in superconducting bismuthates. Physical Review Letters, 1993, 70, 1874-1877.	2.9	20
51	Even-odd correlations in capacitance fluctuations of quantum dots. Physical Review B, 1996, 54, R14289-R14292.	1.1	20
52	Temperature dependence of the order parameter of cuprate superconductors. Physical Review B, 2009, 80, .	1.1	19
53	Universal low-temperature properties of normal heavy-fermion systems (invited). Journal of Applied Physics, 1987, 61, 3162-3167.	1.1	18
54	Haldane Gap and Fractional Oscillations in Gated Josephson Arrays. Physical Review Letters, 1998, 81, 4484-4487.	2.9	17

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55	Vortex dynamics and Hall conductivity of hard-core bosons. <i>Physical Review B</i> , 2010, 82, .	1.1	17
56	Equilibrium formulae for transverse magnetotransport of strongly correlated metals. <i>Physical Review B</i> , 2019, 99, .	1.1	16
57	Superconductivity and Quantum Spin Disorder in Cuprates. <i>Physical Review Letters</i> , 1999, 83, 4848-4851.	2.9	15
58	New approaches to the quantum Heisenberg models: Schwinger boson representations (invited). <i>Journal of Applied Physics</i> , 1990, 67, 5734-5739.	1.1	14
59	Domain Patterns in the Microwave-Induced Zero-Resistance State. <i>Journal of Statistical Physics</i> , 2006, 125, 1093-1107.	0.5	14
60	$1/N$ expansion and spin correlations in constrained wave functions. <i>Physical Review B</i> , 1993, 47, 5118-5132.	1.1	13
61	Landau-level spin waves and Skyrmion energy in the two-dimensional Heisenberg antiferromagnet. <i>Physical Review B</i> , 1991, 43, 11515-11518.	1.1	12
62	Doped Kondo chain, a heavy Luttinger liquid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5140-5144.	3.3	12
63	An analysis of transverse fluctuations in multidimensional tunneling. <i>Nuclear Physics B</i> , 1986, 275, 93-120.	0.9	11
64	Comparison of Tunneling Rates of Fractional Charges and Electrons across a Quantum Hall Strip. <i>Physical Review Letters</i> , 1998, 80, 817-820.	2.9	11
65	Vortex Quantum Dynamics of Two Dimensional Lattice Bosons. <i>Physical Review Letters</i> , 2009, 102, 070403.	2.9	11
66	$1/N$ expansion and long range antiferromagnetic order. <i>Physical Review Letters</i> , 1993, 70, 3808-3811.	2.9	10
67	Quantum tunneling of vortices in two-dimensional superfluids. <i>Physical Review B</i> , 2008, 78, .	1.1	10
68	Interactions, Pair Binding and Ferromagnetism on Spherical Molecules. <i>Europhysics Letters</i> , 1992, 19, 103-108.	0.7	9
69	Spin tunneling, Berry phases, and doped antiferromagnets. <i>Physical Review B</i> , 1993, 48, 3287-3289.	1.1	9
70	Hall Coefficient of Semimetals. <i>Physical Review Letters</i> , 2021, 126, 076603.	2.9	9
71	Hall anomaly and moving vortex charge in layered superconductors. <i>SciPost Physics</i> , 2020, 8, .	1.5	9
72	Correlations in doped antiferromagnets. <i>Physical Review B</i> , 2000, 62, 324-336.	1.1	8

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73	The Kondo boson theory of the dynamic susceptibility of heavy fermions. <i>Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics</i> , 1987, 148, 50-53.	0.9	7
74	A path decomposition expansion proof for the method of images. <i>Journal of Physics A</i> , 1997, 30, 5993-5995.	1.6	7
75	Andreev Peaks and Massive Magnons in Cuprate Superconductor-Normal-Superconductor Junctions. <i>Physical Review Letters</i> , 2000, 85, 3480-3483.	2.9	7
76	Sound attenuation in metals: Reformulation of Pippard theory to include microscopic band structure and scattering. <i>Solid State Communications</i> , 1985, 54, 135-137.	0.9	6
77	Path Decomposition for Multidimensional Tunneling. <i>Physical Review Letters</i> , 1984, 53, 2275-2275.	2.9	5
78	Schwinger Bosons Approaches to Quantum Antiferromagnetism. <i>Springer Series in Solid-state Sciences</i> , 2011, , 365-377.	0.3	4
79	Reducing memory cost of exact diagonalization using singular value decomposition. <i>Physical Review E</i> , 2011, 84, 056701.	0.8	4
80	PROJECTED SO(5) HAMILTONIAN FOR CUPRATES AND ITS APPLICATIONS. <i>International Journal of Modern Physics B</i> , 2001, 15, 2509-2518.	1.0	3
81	Luttinger-Liquid Behavior in Tunneling through a Quantum Dot at Zero Magnetic Field. <i>Physical Review Letters</i> , 2002, 89, 256401.	2.9	2
82	Computing Effective Hamiltonians of Doped and Frustrated Antiferromagnets By Contractor Renormalization. <i>AIP Conference Proceedings</i> , 2006, , .	0.3	2
83	Electronic Properties of Buckminsterfullerenes: Degeneracies and Surprises. <i>Fullerenes, Nanotubes, and Carbon Nanostructures</i> , 1998, 6, 1-29.	0.6	1
84	The quantized Hall insulator. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1998, 77, 1107-1113.	0.6	1
85	Schwinger Bosons Mean Field Theory. <i>Graduate Texts in Contemporary Physics</i> , 1994, , 187-204.	0.2	1
86	Vibrations and Berry Phases of Charged Buckminsterfullerene. <i>Physical Review Letters</i> , 1994, 72, 4156-4156.	2.9	0
87	Quantum Magnetism Approaches to Strongly Correlated Electrons. <i>Springer Series in Solid-state Sciences</i> , 2000, , 143-170.	0.3	0
88	Collective Modes in a Quantum Solid. <i>Physical Review Letters</i> , 2016, 117, 085302.	2.9	0
89	Nonlinear Conductivity and Collective Charge Excitations in the Lowest Landau Level. <i>Physical Review Letters</i> , 2017, 119, 016601.	2.9	0
90	The role of transverse fluctuations in multidimensional tunneling. <i>Lecture Notes in Physics</i> , 1986, , 323-324.	0.3	0

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91	Tunneling in Surface Diffusion. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1986, , 281-295.	0.2	0
92	THE KONDO BOSON THEORY OF THE DYNAMIC SUSCEPTIBILITY OF HEAVY FERMIONS. , 1987, , 50-53.		0
93	The Anderson Lattice and Universal Properties of Heavy Fermion Systems. , 1987, , 345-356.		0
94	Theory of the Coherent Heavy Fermion State: Universal Behavior, Pressure Dependence and Neutron Scattering Cross Section. Japanese Journal of Applied Physics, 1987, 26, 457.	0.8	0
95	The Semiclassical Theory of the $t \hat{\epsilon}'' J$ Model. Graduate Texts in Contemporary Physics, 1994, , 205-222.	0.2	0
96	Degeneracy-Projected Polarization Formulas for Hall-Type Conductivities. Physical Review Letters, 2022, 128, 036601.	2.9	0