

Akira Furusaki

List of Publications by Year in descending order

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127
papers

11,516
citations

28274

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27406

106
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130
all docs

130
docs citations

130
times ranked

5577
citing authors

#	ARTICLE	IF	CITATIONS
1	Gappability Index for Quantum Many-Body Systems. Physical Review Letters, 2022, 129, .	7.8	1
2	Parafermionization, bosonization, and critical parafermionic theories. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
3	Fragile topological insulators protected by rotation symmetry without spin-orbit coupling. Physical Review B, 2021, 104, .	3.2	7
4	Superconductor/normal-metal/superconductor junction of topological superconductors revisited: Fractional Josephson current, fermion parity, and oscillating wave functions. Physical Review B, 2021, 104, .	3.2	2
5	Majorana end states in an interacting quantum wire. Physical Review B, 2020, 102, .	3.2	6
6	Double Majorana vortex zero modes in superconducting topological crystalline insulators with surface rotation anomaly. Physical Review B, 2020, 102, .	3.2	5
7	Fractional charge bound to a vortex in two-dimensional topological crystalline insulators. Physical Review B, 2020, 101, .	3.2	21
8	Quantum phase transitions beyond Landau-Ginzburg theory in one-dimensional space revisited. Physical Review B, 2019, 99, .	3.2	30
9	From coupled wires to coupled layers: Model with three-dimensional fractional excitations. Physical Review B, 2019, 99, .	3.2	9
10	Quantum Hall hierarchy from coupled wires. Physical Review B, 2019, 99, .	3.2	19
11	Majorana stripe order on the surface of a three-dimensional topological insulator. Physical Review B, 2018, 98, .	3.2	6
12	Topological semimetals protected by off-centered symmetries in nonsymmorphic crystals. Physical Review B, 2017, 95, .	3.2	86
13	Weyl points and Dirac lines protected by multiple screw rotations. Science Bulletin, 2017, 62, 788-794.	9.0	36
14	Dimer correlation amplitudes and dimer excitation gap in spin- $\frac{1}{2}$ XXZ and Heisenberg chains. Physical Review B, 2017, 96, .	3.2	17
15	Anderson localization and the topology of classifying spaces. Physical Review B, 2015, 91, .	3.2	34
16	Topological charges of three-dimensional Dirac semimetals with rotation symmetry. Physical Review B, 2015, 92, .	3.2	60
17	Bosonic symmetry-protected topological phases with reflection symmetry. Physical Review B, 2015, 92, .	3.2	14
18	Breakdown of the topological classification for gapped phases of noninteracting fermions by quartic interactions. Physical Review B, 2015, 92, .	3.2	87

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19	Evidence for Time-Reversal Symmetry Breaking of the Superconducting State near Twin-Boundary Interfaces in FeSe Revealed by Scanning Tunneling Spectroscopy. <i>Physical Review X</i> , 2015, 5, .	8.9	61
20	Charge and Spin Transport in Edge Channels of $\nu=0$ Quantum Hall System on the Surface of Topological Insulators. <i>Physical Review Letters</i> , 2015, 114, 146803.	7.8	24
21	Topological magnetoelectric effects in thin films of topological insulators. <i>Physical Review B</i> , 2015, 92, .	3.2	127
22	Correlation effects on topological crystalline insulators. <i>Physical Review B</i> , 2015, 92, .	3.2	24
23	\mathbb{Z}_3 symmetry-protected topological phases in the SU(3) AKLT model. <i>Physical Review B</i> , 2014, 90, .	3.2	39
24	Stability of surface states of weak topological insulators and superconductors. <i>Physical Review B</i> , 2014, 89, .	3.2	27
25	Spin-directed network model for the surface states of weak three-dimensional topological insulators. <i>Physical Review B</i> , 2014, 89, .	3.2	28
26	Weyl and Dirac semimetals with topological charge. <i>Physical Review B</i> , 2014, 89, .	3.2	75
27	Decay of Fermionic Quasiparticles in One-Dimensional Quantum Liquids. <i>Physical Review Letters</i> , 2013, 111, 256401.	7.8	29
28	Electromagnetic and thermal responses in topological matter: Topological terms, quantum anomalies and D-branes. <i>Comptes Rendus Physique</i> , 2013, 14, 871-883.	0.9	17
29	Topological classification with additional symmetries from Clifford algebras. <i>Physical Review B</i> , 2013, 88, .	3.2	225
30	Composite pairing and superfluidity in a one-dimensional resonant Bose-Fermi mixture. <i>Physical Review A</i> , 2013, 88, .	2.5	0
31	Cross-Correlated Responses of Topological Superconductors and Superfluids. <i>Physical Review Letters</i> , 2012, 108, 026802.	7.8	97
32	Time-reversal symmetric Kitaev model and topological superconductor in two dimensions. <i>Physical Review B</i> , 2012, 85, .	3.2	18
33	Global phase diagram of two-dimensional Dirac fermions in random potentials. <i>Physical Review B</i> , 2012, 85, .	3.2	14
34	Ground-state phase diagram of a spin- $\frac{1}{2}$ frustrated ferromagnetic XXZ chain: Haldane dimer phase and gapped/gapless chiral phases. <i>Physical Review B</i> , 2012, 86, .	3.2	86
35	Classification of Topological Insulators and Superconductors. <i>Hyomen Kagaku</i> , 2011, 32, 209-215.	0.0	1
36	Conductance of a Helical Edge Liquid Coupled to a Magnetic Impurity. <i>Physical Review Letters</i> , 2011, 106, 236402.	7.8	125

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37	COMPETING PHASES IN SPIN- $\frac{1}{2}$ - J_1 - J_2 CHAIN WITH EASY-PLANE ANISOTROPY. Modern Physics Letters B, 2011, 25, 901-908.	1.9	22
38	Conformal invariance, multifractality, and finite-size scaling at Anderson localization transitions in two dimensions. Physical Review B, 2010, 82, .	3.2	61
39	Magnetic phase diagram of the spin- $\frac{1}{2}$ antiferromagnetic zigzag ladder. Physical Review B, 2010, 81, .	3.2	51
40	Chain of Majorana States from Superconducting Dirac Fermions at a Magnetic Domain Wall. Physical Review Letters, 2010, 105, 206404.	7.8	20
41	Quantum impurity spin in Majorana edge fermions. Physical Review B, 2010, 82, .	3.2	46
42	The \mathbb{Z}_2 network model for the quantum spin Hall effect: two-dimensional Dirac fermions, topological quantum numbers and corner multifractality. New Journal of Physics, 2010, 12, 065005.	2.9	24
43	Topological insulators and superconductors: tenfold way and dimensional hierarchy. New Journal of Physics, 2010, 12, 065010.	2.9	1,588
44	Unconventional Néel and dimer orders in a spin-1 frustrated ferromagnetic chain with easy-plane anisotropy. Physical Review B, 2010, 81, .	3.2	29
45	High-gradient operators in perturbed Wess-Zumino-Witten field theories in two dimensions. Nuclear Physics B, 2010, 839, 341-376.	2.5	5
46	NMR relaxation rate and dynamical structure factors in nematic and multipolar liquids of frustrated spin chains under magnetic fields. Physical Review B, 2009, 79, .	3.2	77
47	Classification of Topological Insulators and Superconductors. , 2009, , .		265
48	Corner multifractality for reflex angles and conformal invariance at 2D Anderson metal-insulator transition with spin-orbit scattering. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1404-1406.	2.7	11
49	Classification of topological insulators and superconductors in three spatial dimensions. Physical Review B, 2008, 78, .	3.2	2,608
50	Quantum Hall Effect of Massless Dirac Fermions in a Vanishing Magnetic Field. Physical Review Letters, 2008, 100, 246806.	7.8	57
51	Spectral Functions of Strongly Interacting Isospin- $\frac{1}{2}$ Bosons in One Dimension. Physical Review Letters, 2008, 101, 170403.	7.8	40
52	Vector chiral and multipolar orders in the spin- $\frac{1}{2}$ frustrated ferromagnetic chain in magnetic field. Physical Review B, 2008, 78, .	3.2	267
53	Boundary criticality at the Anderson transition between a metal and a quantum spin Hall insulator in two dimensions. Physical Review B, 2008, 78, .	3.2	40
54	Boundary Multifractality at the Integer Quantum Hall Plateau Transition: Implications for the Critical Theory. Physical Review Letters, 2008, 101, 116802.	7.8	49

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55	Multimagnon bound states in the frustrated ferromagnetic one-dimensional chain. Physical Review B, 2007, 76, .	3.2	116
56	Multifractality and Conformal Invariance at 2D Metal-Insulator Transition in the Spin-Orbit Symmetry Class. Physical Review Letters, 2007, 98, 156802.	7.8	33
57	Z2 Topological Term, the Global Anomaly, and the Two-Dimensional Symplectic Symmetry Class of Anderson Localization. Physical Review Letters, 2007, 99, 116601.	7.8	101
58	Two-dimensional spin-filtered chiral network model for the \mathbb{Z}_2 quantum spin-Hall effect. Physical Review B, 2007, 76, .	3.2	79
59	Exact Diagonalization Study of Mott Transition in the Hubbard Model on an Anisotropic Triangular Lattice. Journal of the Physical Society of Japan, 2007, 76, 074719.	1.6	63
60	Conductance fluctuations in disordered superconductors with broken time-reversal symmetry near two dimensions. Nuclear Physics B, 2007, 780, 105-142.	2.5	3
61	Bosonization of strongly interacting one-dimensional electrons. Physical Review B, 2007, 76, .	3.2	23
62	Asymmetric Zero-Bias Anomaly for Strongly Interacting Electrons in One Dimension. Physical Review Letters, 2007, 98, 096403.	7.8	28
63	Landauer conductance and twisted boundary conditions for Dirac fermions in two space dimensions. Physical Review B, 2007, 75, .	3.2	109
64	Renormalization of impurity scattering in one-dimensional interacting electron systems in magnetic field. Physical Review B, 2005, 72, .	3.2	19
65	Anisotropic pyrochlores and the global phase diagram of the checkerboard antiferromagnet. Physical Review B, 2005, 72, .	3.2	66
66	Kondo Problems in Tomonaga-Luttinger Liquids. Journal of the Physical Society of Japan, 2005, 74, 73-79.	1.6	17
67	Correlation amplitudes for the spin-1/2 XXZ chain in a magnetic field. Physical Review B, 2004, 69, .	3.2	94
68	Boundary contributions to specific heat and susceptibility in the spin-1/2 XXZ chain. Physical Review B, 2004, 69, .	3.2	29
69	Crossover of conductance and local density of states in a single-channel disordered quantum wire. Physical Review B, 2004, 70, .	3.2	10
70	Ground-state phase diagram of the one-dimensional half-filled extended Hubbard model. Physical Review B, 2004, 69, .	3.2	65
71	Staggered flux state in the two-leg Hubbard ladder at half filling. Physica B: Condensed Matter, 2003, 329-333, 981-982.	2.7	0
72	Dynamical structure factor in copper benzoate and other spin-1/2 antiferromagnetic chains. Physical Review B, 2003, 68, .	3.2	44

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73	Density of states for the Φ -flux state with bipartite real random hopping only: A weak disorder approach. <i>Physical Review B</i> , 2003, 67, .	3.2	58
74	Universality of delocalization in unconventional dirty superconducting wires with broken spin-rotation symmetry. <i>Physical Review B</i> , 2003, 67, .	3.2	33
75	Density of States of Disordered Dirac Particles: Infinitely Many Operators with Negative Scaling Dimensions and Freezing Transitions. <i>Journal of the Physical Society of Japan</i> , 2003, 72, 219-220.	1.6	0
76	Phase Diagram of the One-Dimensional Extended Hubbard Model at Half Filling. <i>Physical Review Letters</i> , 2002, 88, 056402.	7.8	115
77	Occupation of a Resonant Level Coupled to a Chiral Luttinger Liquid. <i>Physical Review Letters</i> , 2002, 88, 226404.	7.8	64
78	Generalized two-leg Hubbard ladder at half filling: Phase diagram and quantum criticalities. <i>Physical Review B</i> , 2002, 66, .	3.2	56
79	Zero modes in the random hopping model. <i>Physical Review B</i> , 2002, 66, .	3.2	32
80	Transport properties and density of states of quantum wires with off-diagonal disorder. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 9, 333-339.	2.7	10
81	Fokker-Planck equations and density of states in disordered quantum wires. <i>Physical Review B</i> , 2001, 63, .	3.2	45
82	Spontaneous Hall effect in a chiral p -wave superconductor. <i>Physical Review B</i> , 2001, 64, .	3.2	136
83	Spin correlations in the two-leg antiferromagnetic ladder in a magnetic field. <i>Physical Review B</i> , 2001, 63, .	3.2	63
84	Crossover from the chiral to the standard universality classes in the conductance of a quantum wire with random hopping only. <i>Physical Review B</i> , 2000, 62, 8249-8268.	3.2	33
85	Localization and Delocalization in Dirty Superconducting Wires. <i>Physical Review Letters</i> , 2000, 85, 1064-1067.	7.8	84
86	Nonuniversality in quantum wires with off-diagonal disorder: a geometric point of view. <i>Nuclear Physics B</i> , 2000, 565, 653-663.	2.5	36
87	Density of States in Coupled Chains with Off-Diagonal Disorder. <i>Physical Review Letters</i> , 2000, 84, 2913-2916.	7.8	59
88	Random magnetic flux problem in a quantum wire. <i>Physical Review B</i> , 1999, 59, 13221-13234.	3.2	43
89	Numerical renormalization-group study of spin correlations in one-dimensional random spin chains. <i>Physical Review B</i> , 1999, 60, 12116-12124.	3.2	33
90	Dynamical spin correlations in the Heisenberg ladder under a magnetic field and correlation functions in the $SO(5)$ ladder. <i>Physical Review B</i> , 1999, 60, 1175-1187.	3.2	56

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91	Phenomenology of the superconducting state in Sr ₂ RuO ₄ . Physica C: Superconductivity and Its Applications, 1999, 317-318, 134-141.	1.2	106
92	Anderson Localization due to a Random Magnetic Field in Two Dimensions. Physical Review Letters, 1999, 82, 604-607.	7.8	88
93	Josephson current carried by Andreev levels in superconducting quantum point contacts. Superlattices and Microstructures, 1999, 25, 809-818.	3.1	44
94	Resonant tunneling between quantum Hall edges through a quantum dot. Physica B: Condensed Matter, 1998, 249-251, 430-434.	2.7	2
95	Resonant tunneling through a quantum dot weakly coupled to quantum wires or quantum Hall edge states. Physical Review B, 1998, 57, 7141-7148.	3.2	129
96	Correlation amplitude for the S=1/2 XXZ spin chain in the critical region: Numerical renormalization-group study of an open chain. Physical Review B, 1998, 58, R583-R586.	3.2	61
97	Kondo effect in XXZ spin chains. Physical Review B, 1998, 58, 5529-5538.	3.2	19
98	Local perturbation in a Tomonaga-Luttinger liquid at $\nu=1/2$: Orthogonality catastrophe, Fermi-edge singularity, and local density of states. Physical Review B, 1997, 56, 9352-9359.	3.2	35
99	Low-energy fixed points of random quantum spin chains. Physical Review B, 1997, 55, 12578-12593.	3.2	77
100	Theory of optical spectra in 1D Mott insulators. Physica B: Condensed Matter, 1997, 237-238, 407-408.	2.7	0
101	Singularities in Optical Spectra of Quantum Spin Chains. Physical Review Letters, 1996, 76, 2579-2582.	7.8	121
102	Low-Temperature Properties of the Randomly Depleted Heisenberg Ladder. Journal of the Physical Society of Japan, 1996, 65, 2385-2388.	1.6	88
103	Nonmagnetic Impurities in Spin Gap Systems. Journal of the Physical Society of Japan, 1996, 65, 3724-3727.	1.6	55
104	Tunneling through a barrier in a Tomonaga-Luttinger liquid connected to reservoirs. Physical Review B, 1996, 54, R5239-R5242.	3.2	66
105	Coulomb Blockade Oscillations of Conductance in the Regime of Strong Tunneling. Physical Review Letters, 1995, 75, 709-712.	7.8	64
106	Network model of localization in a random magnetic field. Physical Review B, 1995, 52, 16646-16650.	3.2	15
107	Random Quantum Spin Chains: A Real-Space Renormalization Group Study. Physical Review Letters, 1995, 75, 4302-4305.	7.8	85
108	Theory of strong inelastic cotunneling. Physical Review B, 1995, 52, 16676-16695.	3.2	106

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109	Random-exchange quantum Heisenberg chains. <i>Physical Review B</i> , 1995, 52, 15930-15942.	3.2	17
110	Kondo effect in a Tomonaga-Luttinger liquid. <i>Synthetic Metals</i> , 1995, 71, 1871-1873.	3.9	0
111	Gauge-invariant response functions of fermions coupled to a gauge field. <i>Physical Review B</i> , 1994, 50, 17917-17932.	3.2	156
112	Random Exchange Heisenberg Chain for Classical and Quantum Spins. <i>Physical Review Letters</i> , 1994, 73, 2622-2625.	7.8	56
113	DC Josephson effect in dirty SNS junctions: Numerical study. <i>Physica B: Condensed Matter</i> , 1994, 203, 214-218.	2.7	46
114	Kondo effect in a Tomonaga-Luttinger liquid. <i>Physical Review Letters</i> , 1994, 72, 892-895.	7.8	187
115	Tunneling through Barrier in Coulomb Gas Confined in Quantum Wire. <i>Journal of the Physical Society of Japan</i> , 1994, 63, 413-415.	1.6	19
116	Resonant tunneling in a Luttinger liquid. <i>Physical Review B</i> , 1993, 47, 3827-3831.	3.2	151
117	Single-barrier problem and Anderson localization in a one-dimensional interacting electron system. <i>Physical Review B</i> , 1993, 47, 4631-4643.	3.2	264
118	Fermi-Edge Singularity in One-Dimensional Metals: Effects of Hole Recoil and Electronic Correlation. <i>Japanese Journal of Applied Physics</i> , 1993, 32, 76.	1.5	5
119	Semiclassical theory of small Josephson junctions: Solution of the master equation. <i>Physical Review B</i> , 1992, 45, 10576-10596.	3.2	5
120	Fermi-edge singularity in one-dimensional systems. <i>Physical Review Letters</i> , 1992, 68, 3638-3641.	7.8	119
121	Exact solution of the master equation for ultrasmall normal tunnel junctions. <i>Physical Review B</i> , 1992, 45, 3435-3448.	3.2	9
122	Josephson effect of the superconducting quantum point contact. <i>Physical Review B</i> , 1992, 45, 10563-10575.	3.2	89
123	Current-carrying states in Josephson junctions. <i>Physical Review B</i> , 1991, 43, 10164-10169.	3.2	142
124	Dc Josephson effect and Andreev reflection. <i>Solid State Communications</i> , 1991, 78, 299-302.	1.9	277
125	Josephson current through narrow channels. <i>Physica C: Superconductivity and Its Applications</i> , 1991, 185-189, 2585-2586.	1.2	2
126	Theory of quantum conduction of supercurrent through a constriction. <i>Physical Review Letters</i> , 1991, 67, 132-135.	7.8	131

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127	A unified theory of clean Josephson junctions. Physica B: Condensed Matter, 1990, 165-166, 967-968.	2.7	92