

# 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	Classification of topological insulators and superconductors in three spatial dimensions. Physical Review B, 2008, 78, .	3.2	2,608
2	Topological insulators and superconductors: tenfold way and dimensional hierarchy. New Journal of Physics, 2010, 12, 065010.	2.9	1,588
3	Dc Josephson effect and Andreev reflection. Solid State Communications, 1991, 78, 299-302.	1.9	277
4	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
5	Classification of Topological Insulators and Superconductors. , 2009, , .		265
6	Single-barrier problem and Anderson localization in a one-dimensional interacting electron system. Physical Review B, 1993, 47, 4631-4643.	3.2	264
7	Topological classification with additional symmetries from Clifford algebras. Physical Review B, 2013, 88, .	3.2	225
8	Kondo effect in a Tomonaga-Luttinger liquid. Physical Review Letters, 1994, 72, 892-895.	7.8	187
9	Gauge-invariant response functions of fermions coupled to a gauge field. Physical Review B, 1994, 50, 17917-17932.	3.2	156
10	Resonant tunneling in a Luttinger liquid. Physical Review B, 1993, 47, 3827-3831.	3.2	151
11	Current-carrying states in Josephson junctions. Physical Review B, 1991, 43, 10164-10169.	3.2	142
12	Spontaneous Hall effect in a chiral p-wave superconductor. Physical Review B, 2001, 64, .	3.2	136
13	Theory of quantum conduction of supercurrent through a constriction. Physical Review Letters, 1991, 67, 132-135.	7.8	131
14	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
15	Topological magnetoelectric effects in thin films of topological insulators. Physical Review B, 2015, 92, .	3.2	127
16	Conductance of a Helical Edge Liquid Coupled to a Magnetic Impurity. Physical Review Letters, 2011, 106, 236402.	7.8	125
17	Singularities in Optical Spectra of Quantum Spin Chains. Physical Review Letters, 1996, 76, 2579-2582.	7.8	121
18	Fermi-edge singularity in one-dimensional systems. Physical Review Letters, 1992, 68, 3638-3641.	7.8	119

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19	Multimagnon bound states in the frustrated ferromagnetic one-dimensional chain. Physical Review B, 2007, 76, .	3.2	116
20	Phase Diagram of the One-Dimensional Extended Hubbard Model at Half Filling. Physical Review Letters, 2002, 88, 056402.	7.8	115
21	Landauer conductance and twisted boundary conditions for Dirac fermions in two space dimensions. Physical Review B, 2007, 75, .	3.2	109
22	Theory of strong inelastic cotunneling. Physical Review B, 1995, 52, 16676-16695.	3.2	106
23	Phenomenology of the superconducting state in Sr <sub>2</sub> RuO <sub>4</sub> . Physica C: Superconductivity and Its Applications, 1999, 317-318, 134-141.	1.2	106
24	Z <sub>2</sub> Topological Term, the Global Anomaly, and the Two-Dimensional Symplectic Symmetry Class of Anderson Localization. Physical Review Letters, 2007, 99, 116601.	7.8	101
25	Cross-Correlated Responses of Topological Superconductors and Superfluids. Physical Review Letters, 2012, 108, 026802.	7.8	97
26	Correlation amplitudes for the spin-1/2 XXZ chain in a magnetic field. Physical Review B, 2004, 69, .	3.2	94
27	A unified theory of clean Josephson junctions. Physica B: Condensed Matter, 1990, 165-166, 967-968.	2.7	92
28	Josephson effect of the superconducting quantum point contact. Physical Review B, 1992, 45, 10563-10575.	3.2	89
29	Low-Temperature Properties of the Randomly Depleted Heisenberg Ladder. Journal of the Physical Society of Japan, 1996, 65, 2385-2388.	1.6	88
30	Anderson Localization due to a Random Magnetic Field in Two Dimensions. Physical Review Letters, 1999, 82, 604-607.	7.8	88
31	Breakdown of the topological classification $\mathbb{Z}$ for gapped phases of noninteracting fermions by quartic interactions. Physical Review B, 2015, 92, .	3.2	87
32	Ground-state phase diagram of a spin-1/2 frustrated ferromagnetic XXZ chain: Haldane dimer phase and gapped/gapless chiral phases. Physical Review B, 2012, 86, .	3.2	86
33	Topological semimetals protected by off-centered symmetries in nonsymmorphic crystals. Physical Review B, 2017, 95, .	3.2	86
34	Random Quantum Spin Chains: A Real-Space Renormalization Group Study. Physical Review Letters, 1995, 75, 4302-4305.	7.8	85
35	Localization and Delocalization in Dirty Superconducting Wires. Physical Review Letters, 2000, 85, 1064-1067.	7.8	84
36	Two-dimensional spin-filtered chiral network model for the $\mathbb{Z}_2$ quantum spin-Hall effect. Physical Review B, 2007, 76, .	3.2	79

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37	Low-energy fixed points of random quantum spin chains. <i>Physical Review B</i> , 1997, 55, 12578-12593.	3.2	77
38	NMR relaxation rate and dynamical structure factors in nematic and multipolar liquids of frustrated spin chains under magnetic fields. <i>Physical Review B</i> , 2009, 79, .	3.2	77
39	Weyl and Dirac semimetals with $\mathbb{Z}_2$ topological charge. <i>Physical Review B</i> , 2014, 89, .	3.2	75
40	Tunneling through a barrier in a Tomonaga-Luttinger liquid connected to reservoirs. <i>Physical Review B</i> , 1996, 54, R5239-R5242.	3.2	66
41	Anisotropic pyrochlores and the global phase diagram of the checkerboard antiferromagnet. <i>Physical Review B</i> , 2005, 72, .	3.2	66
42	Ground-state phase diagram of the one-dimensional half-filled extended Hubbard model. <i>Physical Review B</i> , 2004, 69, .	3.2	65
43	Coulomb Blockade Oscillations of Conductance in the Regime of Strong Tunneling. <i>Physical Review Letters</i> , 1995, 75, 709-712.	7.8	64
44	Occupation of a Resonant Level Coupled to a Chiral Luttinger Liquid. <i>Physical Review Letters</i> , 2002, 88, 226404.	7.8	64
45	Spin correlations in the two-leg antiferromagnetic ladder in a magnetic field. <i>Physical Review B</i> , 2001, 63, .	3.2	63
46	Exact Diagonalization Study of Mott Transition in the Hubbard Model on an Anisotropic Triangular Lattice. <i>Journal of the Physical Society of Japan</i> , 2007, 76, 074719.	1.6	63
47	Correlation amplitude for the $S=1$ spin chain in the critical region: Numerical renormalization-group study of an open chain. <i>Physical Review B</i> , 1998, 58, R583-R586.	3.2	61
48	Conformal invariance, multifractality, and finite-size scaling at Anderson localization transitions in two dimensions. <i>Physical Review B</i> , 2010, 82, .	3.2	61
49	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
50	Topological charges of three-dimensional Dirac semimetals with rotation symmetry. <i>Physical Review B</i> , 2015, 92, .	3.2	60
51	Density of States in Coupled Chains with Off-Diagonal Disorder. <i>Physical Review Letters</i> , 2000, 84, 2913-2916.	7.8	59
52	Density of states for the $\nu=1$ flux state with bipartite real random hopping only: A weak disorder approach. <i>Physical Review B</i> , 2003, 67, .	3.2	58
53	Quantum Hall Effect of Massless Dirac Fermions in a Vanishing Magnetic Field. <i>Physical Review Letters</i> , 2008, 100, 246806.	7.8	57
54	Random Exchange Heisenberg Chain for Classical and Quantum Spins. <i>Physical Review Letters</i> , 1994, 73, 2622-2625.	7.8	56

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55	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
56	Generalized two-leg Hubbard ladder at half filling: Phase diagram and quantum criticalities. <i>Physical Review B</i> , 2002, 66, .	3.2	56
57	Nonmagnetic Impurities in Spin Gap Systems. <i>Journal of the Physical Society of Japan</i> , 1996, 65, 3724-3727.	1.6	55
58	Magnetic phase diagram of the spin- $\frac{1}{2}$ antiferromagnetic zigzag ladder. <i>Physical Review B</i> , 2010, 81, .	3.2	51
59	Boundary Multifractality at the Integer Quantum Hall Plateau Transition: Implications for the Critical Theory. <i>Physical Review Letters</i> , 2008, 101, 116802.	7.8	49
60	DC Josephson effect in dirty SNS junctions: Numerical study. <i>Physica B: Condensed Matter</i> , 1994, 203, 214-218.	2.7	46
61	Quantum impurity spin in Majorana edge fermions. <i>Physical Review B</i> , 2010, 82, .	3.2	46
62	Fokker-Planck equations and density of states in disordered quantum wires. <i>Physical Review B</i> , 2001, 63, .	3.2	45
63	Josephson current carried by Andreev levels in superconducting quantum point contacts. <i>Superlattices and Microstructures</i> , 1999, 25, 809-818.	3.1	44
64	Dynamical structure factor in copper benzoate and other spin-1/2 antiferromagnetic chains. <i>Physical Review B</i> , 2003, 68, .	3.2	44
65	Random magnetic flux problem in a quantum wire. <i>Physical Review B</i> , 1999, 59, 13221-13234.	3.2	43
66	Spectral Functions of Strongly Interacting Isospin-1 Bosons in One Dimension. <i>Physical Review Letters</i> , 2008, 101, 170403.	7.8	40
67	Boundary criticality at the Anderson transition between a metal and a quantum spin Hall insulator in two dimensions. <i>Physical Review B</i> , 2008, 78, .	3.2	40
68	$Z_3$ symmetry-protected topological phases in the SU(3) AKLT model. <i>Physical Review B</i> , 2014, 90, .	3.2	39
69	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
70	Weyl points and Dirac lines protected by multiple screw rotations. <i>Science Bulletin</i> , 2017, 62, 788-794.	9.0	36
71	Local perturbation in a Tomonaga-Luttinger liquid at $\nu=1/2$ : Orthogonality catastrophe, Fermi-edge singularity, and local density of states. <i>Physical Review B</i> , 1997, 56, 9352-9359.	3.2	35
72	Anderson localization and the topology of classifying spaces. <i>Physical Review B</i> , 2015, 91, .	3.2	34

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73	Numerical renormalization-group study of spin correlations in one-dimensional random spin chains. Physical Review B, 1999, 60, 12116-12124.	3.2	33
74	Crossover from the chiral to the standard universality classes in the conductance of a quantum wire with random hopping only. Physical Review B, 2000, 62, 8249-8268.	3.2	33
75	Universality of delocalization in unconventional dirty superconducting wires with broken spin-rotation symmetry. Physical Review B, 2003, 67, .	3.2	33
76	Multifractality and Conformal Invariance at 2D Metal-Insulator Transition in the Spin-Orbit Symmetry Class. Physical Review Letters, 2007, 98, 156802.	7.8	33
77	Zero modes in the random hopping model. Physical Review B, 2002, 66, .	3.2	32
78	Quantum phase transitions beyond Landau-Ginzburg theory in one-dimensional space revisited. Physical Review B, 2019, 99, .	3.2	30
79	Boundary contributions to specific heat and susceptibility in the spin-12 XXZ chain. Physical Review B, 2004, 69, .	3.2	29
80	Unconventional Néel and dimer orders in a spin-12 frustrated ferromagnetic chain with easy-plane anisotropy. Physical Review B, 2010, 81, .	3.2	29
81	Decay of Fermionic Quasiparticles in One-Dimensional Quantum Liquids. Physical Review Letters, 2013, 111, 256401.	7.8	29
82	Asymmetric Zero-Bias Anomaly for Strongly Interacting Electrons in One Dimension. Physical Review Letters, 2007, 98, 096403.	7.8	28
83	Spin-directed network model for the surface states of weak three-dimensional $\mathbb{Z}_2$ topological insulators. Physical Review B, 2014, 89, .	3.2	28
84	Stability of surface states of weak $\mathbb{Z}_2$ topological insulators and superconductors. Physical Review B, 2014, 89, .	3.2	27
85	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
86	Charge and Spin Transport in Edge Channels of $\nu=0$ Quantum Hall System on the Surface of Topological Insulators. Physical Review Letters, 2015, 114, 146803.	7.8	24
87	Correlation effects on topological crystalline insulators. Physical Review B, 2015, 92, .	3.2	24
88	Bosonization of strongly interacting one-dimensional electrons. Physical Review B, 2007, 76, .	3.2	23
89	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
90	Fractional charge bound to a vortex in two-dimensional topological crystalline insulators. Physical Review B, 2020, 101, .	3.2	21

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91	Chain of Majorana States from Superconducting Dirac Fermions at a Magnetic Domain Wall. Physical Review Letters, 2010, 105, 206404.	7.8	20
92	Kondo effect in XXZ spin chains. Physical Review B, 1998, 58, 5529-5538.	3.2	19
93	Renormalization of impurity scattering in one-dimensional interacting electron systems in magnetic field. Physical Review B, 2005, 72, .	3.2	19
94	Quantum Hall hierarchy from coupled wires. Physical Review B, 2019, 99, .	3.2	19
95	Tunneling through Barrier in Coulomb Gas Confined in Quantum Wire. Journal of the Physical Society of Japan, 1994, 63, 413-415.	1.6	19
96	Time-reversal symmetric Kitaev model and topological superconductor in two dimensions. Physical Review B, 2012, 85, .	3.2	18
97	Random-exchange quantum Heisenberg chains. Physical Review B, 1995, 52, 15930-15942.	3.2	17
98	Kondo Problems in Tomonaga's Luttinger Liquids. Journal of the Physical Society of Japan, 2005, 74, 73-79.	1.6	17
99	Electromagnetic and thermal responses in topological matter: Topological terms, quantum anomalies and D-branes. Comptes Rendus Physique, 2013, 14, 871-883.	0.9	17
100	Dimer correlation amplitudes and dimer excitation gap in spin- $\frac{1}{2}$ XXZ and Heisenberg chains. Physical Review B, 2017, 96, .	3.2	17
101	Network model of localization in a random magnetic field. Physical Review B, 1995, 52, 16646-16650.	3.2	15
102	Global phase diagram of two-dimensional Dirac fermions in random potentials. Physical Review B, 2012, 85, .	3.2	14
103	Bosonic symmetry-protected topological phases with reflection symmetry. Physical Review B, 2015, 92, .	3.2	14
104	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
105	Transport properties and density of states of quantum wires with off-diagonal disorder. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 9, 333-339.	2.7	10
106	Crossover of conductance and local density of states in a single-channel disordered quantum wire. Physical Review B, 2004, 70, .	3.2	10
107	Exact solution of the master equation for ultrasmall normal tunnel junctions. Physical Review B, 1992, 45, 3435-3448.	3.2	9
108	From coupled wires to coupled layers: Model with three-dimensional fractional excitations. Physical Review B, 2019, 99, .	3.2	9

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109	Parafermionization, bosonization, and critical parafermionic theories. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
110	Fragile topological insulators protected by rotation symmetry without spin-orbit coupling. Physical Review B, 2021, 104, .	3.2	7
111	Majorana stripe order on the surface of a three-dimensional topological insulator. Physical Review B, 2018, 98, .	3.2	6
112	Majorana end states in an interacting quantum wire. Physical Review B, 2020, 102, .	3.2	6
113	Semiclassical theory of small Josephson junctions: Solution of the master equation. Physical Review B, 1992, 45, 10576-10596.	3.2	5
114	High-gradient operators in perturbed Wess-Zumino-Witten field theories in two dimensions. Nuclear Physics B, 2010, 839, 341-376.	2.5	5
115	Double Majorana vortex zero modes in superconducting topological crystalline insulators with surface rotation anomaly. Physical Review B, 2020, 102, .	3.2	5
116	Fermi-Edge Singularity in One-Dimensional Metals: Effects of Hole Recoil and Electronic Correlation. Japanese Journal of Applied Physics, 1993, 32, 76.	1.5	5
117	Conductance fluctuations in disordered superconductors with broken time-reversal symmetry near two dimensions. Nuclear Physics B, 2007, 780, 105-142.	2.5	3
118	Josephson current through narrow channels. Physica C: Superconductivity and Its Applications, 1991, 185-189, 2585-2586.	1.2	2
119	Resonant tunneling between quantum Hall edges through a quantum dot. Physica B: Condensed Matter, 1998, 249-251, 430-434.	2.7	2
120	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
121	Classification of Topological Insulators and Superconductors. Hyomen Kagaku, 2011, 32, 209-215.	0.0	1
122	Gappability Index for Quantum Many-Body Systems. Physical Review Letters, 2022, 129, .	7.8	1
123	Kondo effect in a Tomonaga-Luttinger liquid. Synthetic Metals, 1995, 71, 1871-1873.	3.9	0
124	Theory of optical spectra in 1D Mott insulators. Physica B: Condensed Matter, 1997, 237-238, 407-408.	2.7	0
125	Staggered flux state in the two-leg Hubbard ladder at half filling. Physica B: Condensed Matter, 2003, 329-333, 981-982.	2.7	0
126	Composite pairing and superfluidity in a one-dimensional resonant Bose-Fermi mixture. Physical Review A, 2013, 88, .	2.5	0



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127	Density of States of Disordered Dirac Particles: Infinitely Many Operators with Negative Scaling Dimensions and Freezing Transitions. Journal of the Physical Society of Japan, 2003, 72, 219-220.	1.6	0