

Duncan Haldane

List of Publications by Year in descending order

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109
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109
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times ranked

11027
citing authors

#	ARTICLE	IF	CITATIONS
1	Microscopic diagnosis of universal geometric responses in fractional quantum Hall liquids. Physical Review B, 2021, 103, .	1.1	6
2	Gauge-invariant perturbation expansion in powers of electric charge for the density-of-states of a network model for charged-particle motion in a uniform background magnetic flux density. Journal of Mathematical Physics, 2021, 62, 071901.	0.5	0
3	Stability of the particle-hole Pfaffian state and the $\frac{5}{2}$ -fractional quantum Hall effect. Physical Review B, 2021, 104, .	1.1	9
4	Graviton chirality and topological order in the half-filled Landau level. Physical Review B, 2021, 104, .	1.1	9
5	Non-Abelian statistics in one dimension: Topological momentum spacings and SU(2) level-k fusion rules. Physical Review B, 2019, 100, .	1.1	6
6	Chiral Gravitons in Fractional Quantum Hall Liquids. Physical Review Letters, 2019, 123, 146801.	2.9	29
7	Lattice Monte Carlo for quantum Hall states on a torus. Physical Review B, 2019, 99, .	1.1	19
8	Topological Nodal Cooper Pairing in Doped Weyl Metals. Physical Review Letters, 2018, 120, 067003.	2.9	68
9	Berry Phase and Model Wave Function in the Half-Filled Landau Level. Physical Review Letters, 2018, 121, 147202.	2.9	27
10	Pomeranchuk Instability of Composite Fermi Liquids. Physical Review Letters, 2018, 121, 147601.	2.9	18
11	Geometry of flux attachment in anisotropic fractional quantum Hall states. Physical Review B, 2018, 98, .	1.1	6
12	A modular-invariant modified Weierstrass sigma-function as a building block for lowest-Landau-level wavefunctions on the torus. Journal of Mathematical Physics, 2018, 59, 071901.	0.5	16
13	The origin of holomorphic states in Landau levels from non-commutative geometry and a new formula for their overlaps on the torus. Journal of Mathematical Physics, 2018, 59, .	0.5	18
14	Probing the geometry of the Laughlin state. New Journal of Physics, 2016, 18, 025011.	1.2	33
15	Fractional quantum Hall bilayers at half filling: Tunneling-driven non-Abelian phase. Physical Review B, 2016, 94, .	1.1	31
16	Topological characterization of the non-Abelian Moore-Read state using density-matrix renormalization group. Physical Review B, 2015, 92, .	1.1	23
17	Fractional Quantum Hall States at $\nu = 1/2$ and $\nu = 13/5$. Their Non-Abelian Nature. Physical Review Letters, 2015, 115, 126805.	2.9	41
18	Entanglement Entropy of the $\nu = 1/2$ Composite Fermion Non-Fermi Liquid State. Physical Review Letters, 2015, 114, 206402.	2.9	33

#	ARTICLE	IF	CITATIONS
19	Identifying Non-Abelian Topological Order through Minimal Entangled States. Physical Review Letters, 2014, 112, 096803.	2.9	24
20	Nature of Quasielectrons and the Continuum of Neutral Bulk Excitations in Laughlin Quantum Hall Fluids. Physical Review Letters, 2014, 112, 026804.	2.9	15
21	Comment on "Weyl fermions and the anomalous Hall effect in metallic ferromagnets". Physical Review B, 2014, 89, .	1.1	26
22	Guiding-center Hall viscosity and intrinsic dipole moment along edges of incompressible fractional quantum Hall fluids. Physical Review B, 2014, 90, .	1.1	27
23	Minimal entangled states and modular matrix for fractional quantum Hall effect in topological flat bands. Physical Review B, 2013, 88, .	1.1	35
24	Model Wave Functions for the Collective Modes and the Magnetoroton Theory of the Fractional Quantum Hall Effect. Physical Review Letters, 2012, 108, 256807.	2.9	71
25	Model anisotropic quantum Hall states. Physical Review B, 2012, 85, .	1.1	69
26	Quantum Phase Transitions and the $\nu = 5/2$ Fractional Quantum Hall State in Wide Quantum Wells. Physical Review Letters, 2012, 109, 266806.	2.9	32
27	Band mass anisotropy and the intrinsic metric of fractional quantum Hall systems. Physical Review B, 2012, 85, .	1.1	87
28	Geometrical Description of the Fractional Quantum Hall Effect. Physical Review Letters, 2011, 107, 116801.	2.9	230
29	Fractional quantum Hall states at $\nu = 1/3$ and $\nu = 5/2$ filling: Density-matrix renormalization group calculations. Physical Review B, 2011, 83, .	1.1	33
30	The hierarchical structure in the orbital entanglement spectrum of fractional quantum Hall systems. New Journal of Physics, 2011, 13, 105001.	1.2	23
31	Particle-hole symmetry breaking and the $\nu = 1/2$ fractional quantum Hall effect. Physical Review B, 2009, 80, .	1.1	56
32	Mapping the braiding properties of the Moore-Read state. Physical Review B, 2009, 80, .	1.1	32
33	Topological Entanglement and Clustering of Jain Hierarchy States. Physical Review Letters, 2009, 103, 016801.	2.9	96
34	Clustering Properties and Model Wave Functions for Non-Abelian Fractional Quantum Hall Quasielectrons. Physical Review Letters, 2009, 102, 066802.	2.9	69
35	Model Fractional Quantum Hall States and Jack Polynomials. Physical Review Letters, 2008, 100, 246802.	2.9	243
36	Analogs of quantum-Hall-effect edge states in photonic crystals. Physical Review A, 2008, 78, .	1.0	963

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37	Possible Realization of Directional Optical Waveguides in Photonic Crystals with Broken Time-Reversal Symmetry. Physical Review Letters, 2008, 100, 013904.	2.9	2,040
38	Entanglement Spectrum as a Generalization of Entanglement Entropy: Identification of Topological Order in Non-Abelian Fractional Quantum Hall Effect States. Physical Review Letters, 2008, 101, 010504.	2.9	1,169
39	Generalized clustering conditions of Jack polynomials at negative Jack parameter $\hat{\lambda}_{\pm}$. Physical Review B, 2008, 77, .	1.1	84
40	Properties of Non-Abelian Fractional Quantum Hall States at Filling $\hat{\nu}$. Physical Review Letters, 2008, 101, 246806.	2.9	79
41	Broken-Symmetry States of Dirac Fermions in Graphene with a Partially Filled High Landau Level. Physical Review Letters, 2008, 100, 116802.	2.9	17
42	Odd-Integer Quantum Hall Effect in Graphene: Interaction and Disorder Effects. Physical Review Letters, 2007, 99, 196802.	2.9	64
43	Quantum Spin-Hall Effect and Topologically Invariant Chern Numbers. Physical Review Letters, 2006, 97, 036808.	2.9	515
44	Spin Hall effect and spin transfer in a disordered Rashba model. Physical Review B, 2005, 72, .	1.1	37
45	Mobility gap in fractional quantum Hall liquids: Effects of disorder and layer thickness. Physical Review B, 2005, 72, .	1.1	42
46	Nondissipative Spin Hall Effect via Quantized Edge Transport. Physical Review Letters, 2005, 95, 136602.	2.9	192
47	Berry Curvature on the Fermi Surface: Anomalous Hall Effect as a Topological Fermi-Liquid Property. Physical Review Letters, 2004, 93, 206602.	2.9	555
48	Exact diagonalization study of domain structure in integer filling factor quantum Hall ferromagnets. Physical Review B, 2003, 67, .	1.1	12
49	Disorder-Driven Collapse of the Mobility Gap and Transition to an Insulator in the Fractional Quantum Hall Effect. Physical Review Letters, 2003, 90, 256802.	2.9	65
50	Wigner crystals in the lowest Landau level at low-filling factors. Physical Review B, 2001, 64, .	1.1	76
51	Stripes and Pairing in the $\nu = 5/2$ Quantum Hall Effect. , 2001, , 203-213.		0
52	Spontaneous Breakdown of Translational Symmetry in Quantum Hall Systems: Crystalline Order in High Landau Levels. Physical Review Letters, 2000, 85, 5396-5399.	2.9	82
53	Incompressible Paired Hall State, Stripe Order, and the Composite Fermion Liquid Phase in Half-Filled Landau Levels. Physical Review Letters, 2000, 84, 4685-4688.	2.9	337
54	Charge-Density-Wave Ordering in Half-Filled High Landau Levels. Physical Review Letters, 1999, 83, 1219-1222.	2.9	129

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55	Landau Level Mixing and Levitation of Extended States in Two Dimensions. <i>Physical Review Letters</i> , 1997, 78, 298-301.	2.9	51
56	Topological phase transition in the $\hat{\nu}=2/3$ quantum Hall effect. <i>Physical Review B</i> , 1996, 53, 15845-15855.	1.1	33
57	Single-particle Green's functions of the Calogero-Sutherland model at couplings $\hat{\nu}=1/2, 1$, and 2. <i>Physical Review B</i> , 1995, 52, 8729-8746.	1.1	31
58	Stability of Chiral Luttinger Liquids and Abelian Quantum Hall States. <i>Physical Review Letters</i> , 1995, 74, 2090-2093.	2.9	138
59	Quantized spin currents in two-dimensional chiral magnets. <i>Physical Review B</i> , 1995, 52, 4223-4225.	1.1	42
60	Integrals of motion of the Haldane-Shastry model. <i>Journal of Physics A</i> , 1995, 28, 2369-2377.	1.6	26
61	Elementary Excitations of One-Dimensional \hat{J} Model with Inverse-Square Exchange. <i>Physical Review Letters</i> , 1994, 73, 2887-2890.	2.9	39
62	Dynamical $T=0$ correlations of the $S=1/2$ one-dimensional Heisenberg antiferromagnet with $1/r^2$ exchange in a magnetic field. <i>Physical Review B</i> , 1994, 50, 6889-6899.	1.1	28
63	Laughlin state on stretched and squeezed cylinders and edge excitations in the quantum Hall effect. <i>Physical Review B</i> , 1994, 50, 17199-17207.	1.1	101
64	Physics of the Ideal Semion Gas: Spinons and Quantum Symmetries of the Integrable Haldane-Shastry Spin Chain. <i>Springer Series in Solid-state Sciences</i> , 1994, , 3-20.	0.3	25
65	Yang-Baxter equation in long-range interacting systems. <i>Journal of Physics A</i> , 1993, 26, 5219-5236.	1.6	225
66	Squeezed strings and Yangian symmetry of the Heisenberg chain with long-range interaction. <i>Physical Review B</i> , 1993, 47, 12459-12469.	1.1	38
67	Exact calculation of the ground-state dynamical spin correlation function of a $S=1/2$ antiferromagnetic Heisenberg chain with free spinons. <i>Physical Review Letters</i> , 1993, 71, 4055-4058.	2.9	88
68	Models with inverse-square exchange. <i>Physical Review B</i> , 1992, 46, 9359-9368.	1.1	144
69	Yangian symmetry of integrable quantum chains with long-range interactions and a new description of states in conformal field theory. <i>Physical Review Letters</i> , 1992, 69, 2021-2025.	2.9	271
70	\hat{c} -Spinon gas description of the $S=1/2$ Heisenberg chain with inverse-square exchange: Exact spectrum and thermodynamics. <i>Physical Review Letters</i> , 1991, 66, 1529-1532.	2.9	268
71	\hat{c} -Fractional statistics in arbitrary dimensions: A generalization of the Pauli principle. <i>Physical Review Letters</i> , 1991, 67, 937-940.	2.9	840
72	Lowest-order Landau-level mixing corrections for $4\nu > 2$ quantum Hall effect. <i>Physical Review B</i> , 1990, 42, 4532-4536.	1.1	26

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73	Model for a Quantum Hall Effect without Landau Levels: Condensed-Matter Realization of the "Parity Anomaly". Physical Review Letters, 1988, 61, 2015-2018.	2.9	4,579

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91	Fractional Quantization of the Hall Effect: A Hierarchy of Incompressible Quantum Fluid States. Physical Review Letters, 1983, 51, 605-608.	2.9	1,827
92	Nonlinear Field Theory of Large-Spin Heisenberg Antiferromagnets: Semiclassically Quantized Solitons of the One-Dimensional Easy-Axis Néel State. Physical Review Letters, 1983, 50, 1153-1156.	2.9	3,126
93	Phase diagrams of surface structures from Bethe-ansatz solutions of the quantum sine-Gordon model. Physical Review B, 1983, 28, 2743-2745.	1.1	86
94	Elementary excitations of the quantum sine-Gordon model in the massless regime $2 > \beta \hbar v$: Derivation from the XXZ model. Physical Review B, 1983, 28, 2505-2508.	1.1	1
95	Effective Harmonic-Fluid Approach to Low-Energy Properties of One-Dimensional Quantum Fluids.. Physical Review Letters, 1982, 48, 569-569.	2.9	11
96	Excitation spectrum of a generalised Heisenberg ferromagnetic spin chain with arbitrary spin. Journal of Physics C: Solid State Physics, 1982, 15, L1309-L1313.	1.5	57
97	Quantum field ground state of the sine-Gordon model with finite soliton density: exact results. Journal of Physics A, 1982, 15, 507-525.	1.6	46
98	Spontaneous dimerization in the $S=1/2$ Heisenberg antiferromagnetic chain with competing interactions. Physical Review B, 1982, 25, 4925-4928.	1.1	469
99	The soliton wavenumber cut-off and the excitation spectrum of the 1-D Heisenberg ferromagnet in the semiclassical continuum approximation. Journal of Physics C: Solid State Physics, 1982, 15, L831-L835.	1.5	17
100	Effective Harmonic-Fluid Approach to Low-Energy Properties of One-Dimensional Quantum Fluids. Physical Review Letters, 1981, 47, 1840-1843.	2.9	1,039
101	'Luttinger liquid theory' of one-dimensional quantum fluids. I. Properties of the Luttinger model and their extension to the general 1D interacting spinless Fermi gas. Journal of Physics C: Solid State Physics, 1981, 14, 2585-2609.	1.5	2,118
102	General Relation of Correlation Exponents and Spectral Properties of One-Dimensional Fermi Systems: Application to the Anisotropic $S=1/2$ Heisenberg Chain. Physical Review Letters, 1980, 45, 1358-1362.	2.9	692
103	Coupling between charge and spin degrees of freedom in the one-dimensional Fermi gas with backscattering. Journal of Physics C: Solid State Physics, 1979, 12, 4791-4799.	1.5	48
104	Scaling Theory of the Asymmetric Anderson Model. Physical Review Letters, 1978, 40, 416-419.	2.9	503
105	Theory of the atomic limit of the Anderson model. I. Perturbation expansions re-examined. Journal of Physics C: Solid State Physics, 1978, 11, 5015-5034.	1.5	132
106	Hartree-Fock study of the Anderson model coupled to a boson field; mixed valence states. Physical Review B, 1977, 15, 281-289.	1.1	67
107	New model for the mixed-valence phenomenon in rare-earth materials. Physical Review B, 1977, 15, 2477-2484.	1.1	49