

# Kun Yang

## List of Publications by Year in descending order

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88  
papers

3,752  
citations

159525

30  
h-index

128225

60  
g-index

89  
all docs

89  
docs citations

89  
times ranked

2450  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spontaneous interlayer coherence in double-layer quantum Hall systems: Charged vortices and Kosterlitz-Thouless phase transitions. <i>Physical Review B</i> , 1995, 51, 5138-5170.	1.1	602
2	Quantum ferromagnetism and phase transitions in double-layer quantum Hall systems. <i>Physical Review Letters</i> , 1994, 72, 732-735.	2.9	262
3	Three-dimensional quantum Hall effect and metal-insulator transition in ZrTe <sub>5</sub> . <i>Nature</i> , 2019, 569, 537-541.	13.7	205
4	Collective modes and skyrmion excitations in graphene SU(4) quantum Hall ferromagnets. <i>Physical Review B</i> , 2006, 74, .	1.1	173
5	Possible spin-liquid states on the triangular and kagomé lattices. <i>Physical Review Letters</i> , 1993, 70, 2641-2644.	2.9	112
6	Reconstruction of Fractional Quantum Hall Edges. <i>Physical Review Letters</i> , 2002, 88, 056802.	2.9	106
7	Spontaneous symmetry breaking and quantum Hall effect in graphene. <i>Solid State Communications</i> , 2007, 143, 27-32.	0.9	85
8	Spontaneous interlayer coherence in double-layer quantum Hall systems: Symmetry-breaking interactions, in-plane fields, and phase solitons. <i>Physical Review B</i> , 1996, 54, 11644-11658.	1.1	83
9	Floating of Extended States and Localization Transition in a Weak Magnetic Field. <i>Physical Review Letters</i> , 1996, 76, 1316-1319.	2.9	82
10	Spontaneous Breakdown of Translational Symmetry in Quantum Hall Systems: Crystalline Order in High Landau Levels. <i>Physical Review Letters</i> , 2000, 85, 5396-5399.	2.9	82
11	Quantum Hall effects in graphene-based two-dimensional electron systems. <i>Nanotechnology</i> , 2012, 23, 052001.	1.3	81
12	Edge reconstruction in the fractional quantum Hall regime. <i>Physical Review B</i> , 2003, 68, .	1.1	77
13	Wigner crystals in the lowest Landau level at low-filling factors. <i>Physical Review B</i> , 2001, 64, .	1.1	76
14	Spin polarization of the $\nu = 1/2$ Hall state. <i>Physical Review B</i> , 2009, 79, .	1.1	75
15	Field Theoretical Description of Quantum Hall Edge Reconstruction. <i>Physical Review Letters</i> , 2003, 91, 036802.	2.9	73
16	Infinite-Randomness Fixed Points for Chains of Non-Abelian Quasiparticles. <i>Physical Review Letters</i> , 2007, 99, 140405.	2.9	73
17	Model anisotropic quantum Hall states. <i>Physical Review B</i> , 2012, 85, .	1.1	69
18	The effect of impurities on Fulde-Ferrell-Larkin-Ovchinnikov superconductors. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 9259-9270.	0.7	66

#	ARTICLE	IF	CITATIONS
19	Disorder-Driven Collapse of the Mobility Gap and Transition to an Insulator in the Fractional Quantum Hall Effect. <i>Physical Review Letters</i> , 2003, 90, 256802.	2.9	65
20	Global phase diagram and quantum spin liquids in a spin- $\frac{1}{2}$ antiferromagnet. <i>Physical Review B</i> , 2017, 96, .	1.4	64
21	Entanglement entropy scaling laws and eigenstate typicality in free fermion systems. <i>Physical Review B</i> , 2015, 91, .	1.1	55
22	Entanglement Entropy of Fermi Liquids via Multidimensional Bosonization. <i>Physical Review X</i> , 2012, 2, .	2.8	50
23	Josephson Effect in Fulde-Ferrell-Larkin-Ovchinnikov Superconductors. <i>Physical Review Letters</i> , 2000, 84, 4970-4973.	2.9	45
24	Dipolar Excitons, Spontaneous Phase Coherence, and Superfluid-Insulator Transition in Bilayer Quantum Hall Systems at $\nu=1$ . <i>Physical Review Letters</i> , 2001, 87, 056802.	2.9	44
25	Mobility gap in fractional quantum Hall liquids: Effects of disorder and layer thickness. <i>Physical Review B</i> , 2005, 72, .	1.1	42
26	Ferromagnetic Transition in One-Dimensional Itinerant Electron Systems. <i>Physical Review Letters</i> , 2004, 93, 066401.	2.9	38
27	Edge-mode velocities and thermal coherence of quantum Hall interferometers. <i>Physical Review B</i> , 2009, 80, .	1.1	38
28	Striped quantum Hall state in a half-filled Landau level. <i>Physical Review B</i> , 2016, 93, .	1.1	37
29	Current-carrying states in a random magnetic field. <i>Physical Review B</i> , 1997, 55, R1922-R1925.	1.1	35
30	Field-induced topological phase transition from a three-dimensional Weyl semimetal to a two-dimensional massive Dirac metal in $ZrTe_5$ . <i>Physical Review B</i> , 2017, 96, .	1.1	33
31	Spin-valley locking and bulk quantum Hall effect in a noncentrosymmetric Dirac semimetal $BaMnSb_2$ . <i>Nature Communications</i> , 2021, 12, 4062.	5.8	32
32	Maximally entangled mode, metal-insulator transition, and violation of entanglement area law in noninteracting fermion ground states. <i>Physical Review B</i> , 2014, 89, .	1.1	30
33	Vortex-lattice structure of Fulde-Ferrell-Larkin-Ovchinnikov superconductors. <i>Physical Review B</i> , 2004, 70, .	1.1	29
34	Chiral Gravitons in Fractional Quantum Hall Liquids. <i>Physical Review Letters</i> , 2019, 123, 146801.	2.9	29
35	The enigma of the quantum Hall effect in graphene. <i>Solid State Communications</i> , 2009, 149, 1502-1506.	0.9	28
36	Thermopower of quantum Hall states in Corbino geometry as a measure of quasiparticle entropy. <i>Physical Review B</i> , 2012, 85, .	1.1	27

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37	Effects of randomness in gapped antiferromagnetic quantum spin chains. Journal of Applied Physics, 1996, 79, 5096.	1.1	26
38	Conductance characteristics between a normal metal and a two-dimensional Fulde-Ferrell-Larkin-Ovchinnikov superconductor: The Fulde-Ferrell state. Physical Review B, 2006, 73, .	1.1	26
39	Coulomb impurity under magnetic field in graphene: A semiclassical approach. Physical Review B, 2012, 85, .	1.1	26
40	RIGOROUS PROOF OF PSEUDOSPIN FERROMAGNETISM IN TWO-COMPONENT BOSONIC SYSTEMS WITH COMPONENT-INDEPENDENT INTERACTIONS. International Journal of Modern Physics B, 2003, 17, 1027-1033.	1.0	25
41	From Birefringent Electrons to a Marginal or Non-Fermi Liquid of Relativistic Spin- $\frac{1}{2}$ Fermions: An Emergent Superuniversality. Physical Review Letters, 2018, 121, 157602.	2.9	25
42	Entanglement spectrum and entangled modes of highly excited states in random spin chains. Physical Review B, 2015, 92, .	2.9	24
43	Possible nematic spin liquid in spin-1 antiferromagnetic system on the square lattice: Implications for the nematic paramagnetic state of FeSe. Physical Review B, 2017, 95, .	1.1	23
44	Bilayer graphene with parallel magnetic field and twisting: Phases and phase transitions in a highly tunable Dirac system. Physical Review B, 2013, 88, .	1.1	22
45	Entanglement spectrum and entangled modes of random spin chains. Physical Review B, 2013, 88, .	1.1	22
46	Ground state and edge excitations of a quantum Hall liquid at filling factor $2/3$ . Physical Review B, 2008, 78, .	1.1	19
47	Acoustic wave absorption as a probe of dynamical geometrical response of fractional quantum Hall liquids. Physical Review B, 2016, 93, .	1.1	19
48	Quantum Hall Transition near a Fermion Feshbach Resonance in a Rotating Trap. Physical Review Letters, 2008, 100, 030404.	2.9	18
49	Momentum-resolved tunneling into the Pfaffian and anti-Pfaffian edges. Physical Review B, 2009, 80, .	1.1	18
50	Realizing Universal Edge Properties in Graphene Fractional Quantum Hall Liquids. Physical Review Letters, 2011, 107, 236806.	2.9	18
51	Emergent quasi-one-dimensionality in a kagome magnet: A simple route to complexity. Physical Review B, 2016, 94, .	1.1	18
52	Topological Interface between Pfaffian and Anti-Pfaffian Order in $\nu = 5/2$ Quantum Hall Effect. Physical Review Letters, 2020, 125, 146802.	2.9	18
53	Interaction-driven quantum phase transitions in fractional topological insulators. Physical Review B, 2012, 85, .	1.1	17
54	Quantum anomalous Hall insulator stabilized by competing interactions. Physical Review B, 2018, 98, .	1.1	17

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55	Quasiparticle tunneling in the Moore-Read fractional quantum Hall state. <i>Physical Review B</i> , 2009, 80, .	1.1	16
56	Realization of Supersymmetry and Its Spontaneous Breaking in Quantum Hall Edges. <i>Physical Review Letters</i> , 2021, 126, 206801.	2.9	15
57	Exactly solvable model of Fermi arcs and pseudogap. <i>Physical Review B</i> , 2021, 103, .	1.1	13
58	Relaxation of a Goldstino-like mode due to supersymmetry breaking in Bose-Fermi mixtures. <i>Physical Review A</i> , 2015, 91, .	1.0	10
59	Probing critical surfaces in momentum space using real-space entanglement entropy: Bose versus Fermi. <i>Physical Review B</i> , 2016, 93, .	1.1	9
60	Graviton chirality and topological order in the half-filled Landau level. <i>Physical Review B</i> , 2021, 104, .	1.1	9
61	Spectroscopic signatures of the Larkin-Ovchinnikov state in the conductance characteristics of a normal-metal/superconductor junction. <i>Physical Review B</i> , 2012, 85, .	1.1	8
62	Existence of strong-pairing quantum Hall phase in bilayer cold-atom systems with dipolar interactions. <i>Physical Review B</i> , 2014, 90, .	1.1	8
63	Composite fermions in Fock space: Operator algebra, recursion relations, and order parameters. <i>Physical Review B</i> , 2019, 100, .	1.1	8
64	Disentangling topological degeneracy in the entanglement spectrum of one-dimensional symmetry-protected topological phases. <i>Physical Review B</i> , 2014, 89, .	1.1	7
65	Interface and phase transition between Moore-Read and Halperin 331 fractional quantum Hall states: Realization of chiral Majorana fermion. <i>Physical Review B</i> , 2017, 96, .	1.1	7
66	Charge and spin reconstruction in quantum Hall strips. <i>Physical Review B</i> , 2011, 83, .	1.1	6
67	Detection of Striped Superconductors Using Magnetic Field Modulated Josephson Effect. <i>Journal of Superconductivity and Novel Magnetism</i> , 2013, 26, 2741-2742.	0.8	6
68	Hidden thermal structure in Fock space. <i>Physical Review E</i> , 2018, 98, .	0.8	6
69	Numerical study of spin quantum Hall transitions in superconductors with broken time-reversal symmetry. <i>Physical Review B</i> , 2004, 70, .	1.1	5
70	Edge states in a honeycomb lattice: Effects of anisotropic hopping and mixed edges. <i>Physical Review B</i> , 2010, 81, .	1.1	5
71	Quantum antiferromagnetic Heisenberg half-odd-integer spin model as the entanglement Hamiltonian of the integer-spin Affleck-Kennedy-Lieb-Tasaki states. <i>Physical Review B</i> , 2016, 93, .	1.1	5
72	Magnetization and Spin Excitations of Non-Abelian Quantum Hall States. <i>Physical Review Letters</i> , 2008, 101, 216808.	2.9	4

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73	Edge reconstruction of fractional quantum Hall liquids with spin degrees of freedom. Physical Review B, 2013, 88, .	1.1	4
74	Fate of a strongly correlated $d$ -wave superconductor in a Zeeman field: The Fulde-Ferrel-Larkin-Ovchinnikov perspective. Physical Review B, 2019, 100, .	1.1	4
75	QUANTUM LIQUID CRYSTAL PHASES IN FERMIONIC SUPERFLUIDS WITH PAIRING BETWEEN FERMION SPECIES OF UNEQUAL DENSITIES. International Journal of Modern Physics B, 2013, 27, 1362001.	1.0	3
76	Thouless conductances of a three-dimensional quantum Hall system. Physical Review B, 2020, 102, .	1.1	3
77	Dynamics of quantum Hall interfaces. Physical Review B, 2021, 104, .	1.1	3
78	Breakdown of quantum-classical correspondence and dynamical generation of entanglement. Physical Review B, 2021, 104, .	1.1	3
79	Multicritical point and unified description of broken-symmetry phases in spin- $2$ antiferromagnets on a square lattice. Physical Review B, 2022, 105, .		
80	Critical temperature $T_c$ and Pauli limited critical field of $\text{Sr}_2\text{RuO}_4$ : Uniaxial strain dependence. Physical Review B, 2020, 102, .	1.1	2
81	Three-dimensional non-Abelian anyons: Degeneracy splitting and detection by adiabatic cooling. Physical Review B, 2011, 84, .	1.1	1
82	Chiral spin liquid from magnetic Wannier states. Physical Review B, 2016, 93, .	1.1	1
83	Construction of a series of new $\nu = 1/2$ fractional quantum Hall wave functions by conformal field theory. Physical Review B, 2020, 102, .		
84	Effect of surface disorder on the chiral surface states of a three-dimensional quantum Hall system. Physical Review B, 2021, 103, .	1.1	1
85	Realization, Characterization, and Detection of Novel Superfluid Phases with Pairing between Unbalanced Fermion Species. Series on Advances in Quantum Many-body Theory, 2006, , 253-268.	0.2	1
86	Quantitative theory of composite fermions in Bose-Fermi mixtures at $\nu = 1$ . Physical Review B, 2022, 105, .		
87	Simple analog of the black-hole information paradox in quantum Hall interfaces. Physical Review B, 2022, 105, .	1.1	1
88	Topological phase transition in a two-species fermion system: Effects of a rotating trap potential or a synthetic gauge field. Physical Review B, 2018, 97, .	1.1	0