

# Jainendra Jain

## List of Publications by Year in descending order

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123  
papers

7,924  
citations

94433

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g-index

124  
all docs

124  
docs citations

124  
times ranked

2481  
citing authors

#	ARTICLE	IF	CITATIONS
1	Anderson Localization in the Fractional Quantum Hall Effect. Physical Review Letters, 2022, 128, 116801.	7.8	5
2	Revisiting excitation gaps in the fractional quantum Hall effect. Physical Review B, 2022, 105, .	3.2	3
3	Phase diagram of superconductivity in the integer quantum Hall regime. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	5
4	Bloch ferromagnetism of composite fermions. Nature Physics, 2021, 17, 48-52.	16.7	16
5	Kohn-Sham density functional theory of Abelian anyons. Physical Review B, 2021, 103, .	3.2	5
6	Unconventional $Z_n$ parton states at $\nu = 7/2$ : Role of finite width. Physical Review B, 2021, 103, .	3.2	15
7	Exactly Solvable Model for Strongly Interacting Electrons in a Magnetic Field. Physical Review Letters, 2021, 126, 136601.	7.8	6
8	Origin of the $\nu = 1$ fractional quantum Hall effect in wide quantum wells. Physical Review B, 2021, 103, .	3.2	1
9	Crystalline solutions of the Kohn-Sham equations in the fractional quantum Hall regime. Physical Review B, 2021, 104, .	3.2	0
10	Composite anyons on a torus. Physical Review B, 2021, 104, .	3.2	7
11	Bardeen-Cooper-Schrieffer pairing of composite fermions. Physical Review B, 2021, 104, .	3.2	5
12	Theoretical phase diagram of two-component composite fermions in double-layer graphene. Physical Review B, 2020, 101, .	3.2	7
13	Interplay between fractional quantum Hall liquid and crystal phases at low filling. Physical Review B, 2020, 102, .	3.2	12
14	Hall viscosity of composite fermions. Physical Review Research, 2020, 2, .	3.6	7
15	$Z_n$ superconductivity of composite bosons and the $\nu = 7/3$ fractional quantum Hall effect. Physical Review Research, 2020, 2, .	3.6	23
16	Non-Abelian fractional quantum Hall state at $3/7$ -filled Landau level. Physical Review Research, 2020, 2, .	3.6	15
17	Fractional Quantum Hall Effects. , 2020, , .		49
18	Thirty Years of Composite Fermions and Beyond. , 2020, , 1-78.		3

#	ARTICLE	IF	CITATIONS
19	Prediction of a Non-Abelian Fractional Quantum Hall State with $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle \text{f} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -Wave Pairing of Composite Fermions in Wide Quantum Wells. Physical Review Letters, 2019, 123, 016802.	7.8	37
20	Kohn-Sham Theory of the Fractional Quantum Hall Effect. Physical Review Letters, 2019, 123, 176802.	7.8	8
21	Next-level composite fermions. Nature Physics, 2019, 15, 883-884.	16.7	4
22	Topological superconductivity in Landau levels. Physical Review B, 2019, 99, .	3.2	7
23	Even denominator fractional quantum Hall states in higher Landau levels of graphene. Nature Physics, 2019, 15, 154-158.	16.7	76
24	Search for exact local Hamiltonians for general fractional quantum Hall states. Physical Review B, 2018, 98, .	3.2	15
25	Fractional Quantum Hall Effect at $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{1} / 2 \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle = \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 13 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ : The Parton Paradigm for the Second Landau Level. Physical Review Letters, 2018, 121, 186601.	7.8	25
26	Crystallization in the Fractional Quantum Hall Regime Induced by Landau-Level Mixing. Physical Review Letters, 2018, 121, 116802.	7.8	29
27	Exotic bilayer crystals in a strong magnetic field. Physical Review B, 2018, 97, .	3.2	5
28	Berry phase of the composite-fermion Fermi sea: Effect of Landau-level mixing. Physical Review B, 2018, 98, .	3.2	12
29	Inter-Landau-level Andreev Reflection at the Dirac Point in a Graphene Quantum Hall State Coupled to a $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{NbSe} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:math} \rangle$ Superconductor. Physical Review Letters, 2018, 121, 086809.	7.8	27
30	The enigma of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{1} / 2 \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle = \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 13 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ quantum Hall effect. Physical Review B, 2017, 95, .	3.2	12
31	Surprising robustness of particle-hole symmetry for composite-fermion liquids. Physical Review B, 2017, 96, .	3.2	16
32	Fermi wave vector for the partially spin-polarized composite-fermion Fermi sea. Physical Review B, 2017, 96, .	3.2	24
33	Composite fermions on a torus. Physical Review B, 2017, 96, .	3.2	21
34	Density-Functional Theory of the Fractional Quantum Hall Effect. Physical Review Letters, 2017, 118, 196802.	7.8	7
35	Non-Abelian Parton Fractional Quantum Hall Effect in Multilayer Graphene. Nano Letters, 2017, 17, 4643-4647.	9.1	47
36	Particle-hole symmetry for composite fermions: An emergent symmetry in the fractional quantum Hall effect. Physical Review B, 2017, 96, .	3.2	14

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37	Landau-Level Mixing and Particle-Hole Symmetry Breaking for Spin Transitions in the Fractional Quantum Hall Effect. Physical Review Letters, 2016, 117, 116803.	7.8	25
38	Observation of the Quantum Anomalous Hall Insulator to Anderson Insulator Quantum Phase Transition and its Scaling Behavior. Physical Review Letters, 2016, 117, 126802. Robustness of topological surface states against strong disorder observed in	7.8	52
39	$B^2 i T^3 e^3$	3.2	18
40	Nature of composite fermions and the role of particle-hole symmetry: A microscopic account. Physical Review B, 2016, 93, .	3.2	55
41	Phase diagram of fractional quantum Hall effect of composite fermions in multicomponent systems. Physical Review B, 2015, 91, .	3.2	34
42	Creating and manipulating non-Abelian anyons in cold atom systems using auxiliary bosons. Physical Review B, 2015, 92, .	3.2	25
43	Fractional quantum Hall effect in graphene: Quantitative comparison between theory and experiment. Physical Review B, 2015, 92, .	3.2	53
44	Analytical theory of strongly correlated Wigner crystals in the lowest Landau level. Physical Review B, 2015, 92, .	3.2	5
45	Spontaneous polarization of composite fermions in the $n = 3/2$ level of graphene. Physical Review B, 2015, 92, .	3.2	32
46	Zero-Field Dissipationless Chiral Edge Transport and the Nature of Dissipation in the Quantum Anomalous Hall State. Physical Review Letters, 2015, 115, 057206.	7.8	107
47	Luttinger Theorem for the Strongly Correlated Fermi Liquid of Composite Fermions. Physical Review Letters, 2015, 115, 186805.	7.8	46
48	Fractional topological phases in generalized Hofstadter bands with arbitrary Chern numbers. Physical Review B, 2015, 91, .	3.2	18
49	Emergent Fermi sea in a system of interacting bosons. Physical Review A, 2015, 91, .	2.5	11
50	Fractionally charged skyrmions in fractional quantum Hall effect. Nature Communications, 2015, 6, 8981.	12.8	10
51	Composite Fermion Theory of Exotic Fractional Quantum Hall Effect. Annual Review of Condensed Matter Physics, 2015, 6, 39-62.	14.5	28
52	Spin polarization of composite fermions and particle-hole symmetry breaking. Physical Review B, 2014, 90, .	3.2	31
53	Possible realization of a chiral p-wave paired state in a two-component system. Physical Review B, 2014, 90, .	3.2	14
54	Enigmatic $4/11$ State: A Prototype for Unconventional Fractional Quantum Hall Effect. Physical Review Letters, 2014, 112, 016801.	7.8	42

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55	Fractional Angular Momentum in Cold-Atom Systems. Physical Review Letters, 2014, 113, 160404.	7.8	34
56	A note contrasting two microscopic theories of the fractional quantum Hall effect. Indian Journal of Physics, 2014, 88, 915-929.	1.8	28
57	Competing Crystal Phases in the Lowest Landau Level. Physical Review Letters, 2013, 111, 146804.	7.8	36
58	Phase Diagram of the Two-Component Fractional Quantum Hall Effect. Physical Review Letters, 2013, 110, 246801.	7.8	12
59	State counting for excited bands of the fractional quantum Hall effect: Exclusion rules for bound excitons. Physical Review B, 2013, 88, .	3.2	31
60	Tripartite composite fermion states. Physical Review B, 2013, 87, .	3.2	18
61	Role of Exciton Screening in the $7/3$ Fractional Quantum Hall Effect. Physical Review Letters, 2013, 110, 186801.	7.8	46
62	Possible Anti-Pfaffian Pairing of Composite Fermions at $\nu=3/8$ . Physical Review Letters, 2012, 109, 256801.	7.8	28
63	Adiabatic continuity between Hofstadter and Chern insulator states. Physical Review B, 2012, 86, .	3.2	40
64	Evidence for electron-electron interaction in topological insulator thin films. Physical Review B, 2011, 83, .	3.2	244
65	Bipartite Composite Fermion States. Physical Review Letters, 2011, 107, 086806.	7.8	36
66	Microscopic study of the $2/5$ fractional quantum Hall edge. Physical Review B, 2011, 84, .	3.2	9
67	Unpaired Composite Fermion, Topological Exciton, and Zero Mode. Physical Review Letters, 2011, 107, 136802.	7.8	31
68	Thermodynamic behavior of braiding statistics for certain fractional quantum Hall quasiparticles. Physical Review B, 2010, 81, .	3.2	10
69	Fractional quantum Hall edge: Effect of nonlinear dispersion and edge roton. Physical Review B, 2010, 82, .	3.2	22
70	Change in the character of quasiparticles without gap collapse in a model of fractional quantum Hall effect. Physical Review B, 2009, 80, .	3.2	20
71	Beyond the Fermi liquid paradigm: Hidden Fermi liquids. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 9131-9134.	7.1	34
72	Collective excitations of composite fermions across multiple $\nu$ levels. Nature Physics, 2009, 5, 403-406.	16.7	26

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73	Coherent oscillations and giant edge magnetoresistance in singly connected topological insulators. Physical Review B, 2009, 80, .	3.2	32
74	Phase diagram for bilayer quantum Hall effect at total filling $\nu = 2$ . Physical Review B, 2008, 77, .	3.2	18
75	States of interacting composite fermions at the Landau level filling $\nu = 2 + 3/8$ . Physical Review B, 2008, 77, .	3.2	9
76	SU(4) composite fermions in graphene: Fractional quantum Hall states without analog in GaAs. Physical Review B, 2007, 75, .	3.2	68
77	Composite fermion solid and liquid states in two component quantum dots. Physical Review B, 2007, 75, .	3.2	16
78	Composite-fermion wave functions as correlators in conformal field theory. Physical Review B, 2007, 76, .	3.2	51
79	Theoretical study of even denominator fractions in graphene: Fermi sea versus paired states of composite fermions. Physical Review B, 2007, 76, .	3.2	17
80	Semiconductor quantum dots in high magnetic fields. European Physical Journal B, 2007, 55, 271-282.	1.5	19
81	Resonant Tunneling in the Fractional Quantum Hall Effect: Superperiods and Braiding Statistics. Physical Review Letters, 2006, 96, 136802.	7.8	12
82	Fractional quantum Hall effect in graphene. Physical Review B, 2006, 74, .	3.2	127
83	Competition between composite-fermion-crystal and liquid orders at $\nu = 1/5$ . Physical Review B, 2006, 73, .	3.2	17
84	Composite-fermion antiparticle description of the hole excitation in a maximum-density droplet with a small number of electrons. Physical Review B, 2005, 72, .	3.2	9
85	Composite fermionization of bosons in rapidly rotating atomic traps. Physical Review A, 2005, 72, .	2.5	78
86	Reconstructing the Electron in a Fractionalized Quantum Fluid. Physical Review Letters, 2005, 94, 186808.	7.8	6
87	Quantum Monte Carlo study of composite fermions in quantum dots: The effect of Landau-level mixing. Physical Review B, 2005, 72, .	3.2	37
88	Microscopic Verification of Topological Electron-Vortex Binding in the Lowest Landau-Level Crystal State. Physical Review Letters, 2005, 94, 016809.	7.8	42
89	Composite-fermion crystallites in quantum dots. Journal of Physics Condensed Matter, 2004, 16, L271-L277.	1.8	23
90	Berry phases for composite fermions: Effective magnetic field and fractional statistics. Physical Review B, 2004, 70, .	3.2	20

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91	Composite fermion theory of correlated electrons in semiconductor quantum dots in high magnetic fields. Physical Review B, 2004, 69, .	3.2	35
92	Fractional Statistics in the Fractional Quantum Hall Effect. Physical Review Letters, 2003, 91, 036801.	7.8	38
93	Two-Dimensional Electron System in High Magnetic Fields: Wigner Crystal versus Composite-Fermion Liquid. Physical Review Letters, 2003, 90, 106403.	7.8	25
94	Possible persistence of fractional quantum Hall effect down to ultralow fillings. Physical Review B, 2003, 68, .	3.2	8
95	Possible Pairing-Induced Even-Denominator Fractional Quantum Hall Effect in the Lowest Landau Level. Physical Review Letters, 2002, 88, 216804.	7.8	42
96	Theoretical search for the nested quantum Hall effect of composite fermions. Physical Review B, 2002, 66, .	3.2	82
97	POSSIBLE NEW PHASES OF COMPOSITE FERMIONS. International Journal of Modern Physics B, 2002, 16, 2946-2951.	2.0	0
98	POSSIBLE NEW PHASES OF COMPOSITE FERMIONS. , 2002, , .		0
99	Stripe Formation in the Fractional Quantum Hall Regime. Physical Review Letters, 2001, 87, 256803.	7.8	66
100	Phase diagram of bilayer composite fermion states. Physical Review B, 2001, 64, .	3.2	42
101	Cooper instability of composite fermions. Nature, 2000, 406, 863-865.	27.8	91
102	Theoretical study of the stability of the fractional quantum Hall effect in higher Landau levels. Physical Review B, 2000, 62, R4802-R4804.	3.2	5
103	Rotons of composite fermions: Comparison between theory and experiment. Physical Review B, 2000, 61, 13064-13072.	3.2	68
104	Activation gaps for the fractional quantum Hall effect: realistic treatment of transverse thickness. Journal of Physics Condensed Matter, 1999, 11, 7283-7299.	1.8	30
105	Spontaneous Magnetization of Composite Fermions. Physical Review Letters, 1999, 83, 5543-5546.	7.8	29
106	Possibility of p-wave pairing of composite fermions at $\nu=1/2$ . Physical Review B, 1998, 58, R10167-R10170.	3.2	85
107	Phase Diagram of the Spin Polarization of Composite Fermions and a New Effective Mass. Physical Review Letters, 1998, 80, 4237-4240.	7.8	135
108	COMPOSITE FERMIONS: PARTICLES OF THE LOWEST LANDAU LEVEL. , 1998, , 1-90.		11

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109	Quantitative study of large composite-fermion systems. Physical Review B, 1997, 55, R4895-R4898.	3.2	178
110	Excitonic instability and termination of fractional quantum Hall effect. Physical Review B, 1997, 55, R13417-R13420.	3.2	15
111	Fermi-sea-like correlations in a partially filled Landau level. Physical Review B, 1997, 56, 12411-12416.	3.2	37
112	Composite Fermions in the Hilbert Space of the Lowest Electronic Landau Level. International Journal of Modern Physics B, 1997, 11, 2621-2660.	2.0	194
113	Composite Fermions in Quantum Dots. Europhysics Letters, 1995, 29, 321-326.	2.0	86
114	Detection of composite fermions by magnetic focusing. Physical Review Letters, 1994, 72, 2065-2068.	7.8	258
115	Half-integral spin-singlet quantum Hall effect. Physical Review B, 1993, 48, 15245-15249.	3.2	15
116	Mixed-spin incompressible states in the fractional quantum Hall effect. Physical Review Letters, 1993, 71, 153-156.	7.8	138
117	Band structure of the fractional quantum Hall effect. Physical Review Letters, 1992, 69, 2843-2846.	7.8	123
118	Theory of the fractional quantum Hall effect. Physical Review B, 1990, 41, 7653-7665.	3.2	485
119	Nature of the extended states in the fractional quantum Hall effect. Physical Review Letters, 1990, 65, 907-910.	7.8	25
120	Scaling theory of the fractional quantum Hall effect. Physical Review Letters, 1990, 64, 1297-1300.	7.8	90
121	Composite-fermion approach for the fractional quantum Hall effect. Physical Review Letters, 1989, 63, 199-202.	7.8	1,996
122	Incompressible quantum Hall states. Physical Review B, 1989, 40, 8079-8082.	3.2	337
123	Composite Fermions. , 0, , 265-305.		2