

Maksym Serbyn

List of Publications by Year in descending order

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58
papers

6,257
citations

136885

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59
all docs

59
docs citations

59
times ranked

3302
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>Colloquium</i> : Many-body localization, thermalization, and entanglement. <i>Reviews of Modern Physics</i> , 2019, 91, .	16.4	1,005
2	Local Conservation Laws and the Structure of the Many-Body Localized States. <i>Physical Review Letters</i> , 2013, 111, 127201.	2.9	687
3	Weak ergodicity breaking from quantum many-body scars. <i>Nature Physics</i> , 2018, 14, 745-749.	6.5	537
4	Universal Slow Growth of Entanglement in Interacting Strongly Disordered Systems. <i>Physical Review Letters</i> , 2013, 110, 260601.	2.9	459
5	Quantum scarred eigenstates in a Rydberg atom chain: Entanglement, breakdown of thermalization, and stability to perturbations. <i>Physical Review B</i> , 2018, 98, .	1.1	260
6	Observation of Dirac Node Formation and Mass Acquisition in a Topological Crystalline Insulator. <i>Science</i> , 2013, 341, 1496-1499.	6.0	252
7	Quantum many-body scars and weak breaking of ergodicity. <i>Nature Physics</i> , 2021, 17, 675-685.	6.5	222
8	Criterion for Many-Body Localization-Delocalization Phase Transition. <i>Physical Review X</i> , 2015, 5, .	2.8	206
9	Emergent SU(2) Dynamics and Perfect Quantum Many-Body Scars. <i>Physical Review Letters</i> , 2019, 122, 220603.	2.9	201
10	Controlling quantum many-body dynamics in driven Rydberg atom arrays. <i>Science</i> , 2021, 371, 1355-1359.	6.0	186
11	Spectral statistics across the many-body localization transition. <i>Physical Review B</i> , 2016, 93, .	1.1	156
12	Interferometric Probes of Many-Body Localization. <i>Physical Review Letters</i> , 2014, 113, 147204.	2.9	153
13	Quantum quenches in the many-body localized phase. <i>Physical Review B</i> , 2014, 90, .	1.1	146
14	Distinguishing localization from chaos: Challenges in finite-size systems. <i>Annals of Physics</i> , 2021, 427, 168415.	1.0	133
15	Half- and quarter-metals in rhombohedral trilayer graphene. <i>Nature</i> , 2021, 598, 429-433.	13.7	119
16	Dirac mass generation from crystal symmetry breaking on the surfaces of topological crystalline insulators. <i>Nature Materials</i> , 2015, 14, 318-324.	13.3	113
17	Thouless energy and multifractality across the many-body localization transition. <i>Physical Review B</i> , 2017, 96, .	1.1	103
18	Analytically Solvable Renormalization Group for the Many-Body Localization Transition. <i>Physical Review Letters</i> , 2019, 122, 040601.	2.9	98

#	ARTICLE	IF	CITATIONS
19	Power-Law Entanglement Spectrum in Many-Body Localized Phases. Physical Review Letters, 2016, 117, 160601.	2.9	92
20	Symmetry breaking and Landau quantization in topological crystalline insulators. Physical Review B, 2014, 90, .	1.1	88
21	Kosterlitz-Thouless scaling at many-body localization phase transitions. Physical Review B, 2019, 99, .	1.1	87
22	Revealing hidden spin-momentum locking in a high-temperature cuprate superconductor. Science, 2018, 362, 1271-1275.	6.0	82
23	Mapping the unconventional orbital texture in topological crystalline insulators. Nature Physics, 2014, 10, 572-577.	6.5	79
24	Slow Quantum Thermalization and Many-Body Revivals from Mixed Phase Space. Physical Review X, 2020, 10, .	2.8	66
25	Paired chiral spin liquid with a Fermi surface in $S=1$ model on the triangular lattice. Physical Review B, 2012, 86, .	1.1	54
26	Stabilizing two-dimensional quantum scars by deformation and synchronization. Physical Review Research, 2020, 2, .	1.3	49
27	Unconventional Superconductivity in Systems with Annular Fermi Surfaces: Application to Rhombohedral Trilayer Graphene. Physical Review Letters, 2021, 127, 247001.	2.9	48
28	Quantum annealing initialization of the quantum approximate optimization algorithm. Quantum - the Open Journal for Quantum Science, 0, 5, 491.	0.0	46
29	Exotic $S=1$ spin-liquid state with fermionic excitations on the triangular lattice. Physical Review B, 2011, 84, .	1.1	46
30	Probing the many-body localization phase transition with superconducting circuits. Physical Review B, 2019, 100, .	1.1	38
31	Thermoelectric Transport Signatures of Dirac Composite Fermions in the Half-Filled Landau Level. Physical Review X, 2016, 6, .	2.8	37
32	Entanglement View of Dynamical Quantum Phase Transitions. Physical Review Letters, 2021, 126, 040602.	2.9	36
33	Avoiding Barren Plateaus Using Classical Shadows. PRX Quantum, 2022, 3, .	3.5	36
34	Superconductivity and nematic fluctuations in a model of doped FeSe monolayers: Determinant quantum Monte Carlo study. Physical Review B, 2016, 94, .	1.1	32
35	New Dirac points and multiple Landau level crossings in biased trilayer graphene. Physical Review B, 2013, 87, .	1.1	31
36	Emergent Dirac Gullies and Gully-Symmetry-Breaking Quantum Hall States in AB Trilayer Graphene. Physical Review Letters, 2018, 121, 167601.	2.9	30

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37	Landau Level Splittings, Phase Transitions, and Nonuniform Charge Distribution in Trilayer Graphene. Physical Review Letters, 2016, 117, 066601.	2.9	28
38	Discrete Time-Crystalline Order Enabled by Quantum Many-Body Scars: Entanglement Steering via Periodic Driving. Physical Review Letters, 2021, 127, 090602.	2.9	28
39	Patterns of genetic, phenotypic, and acoustic variation across a chiffchaff (<i>Phylloscopus collybita</i>) Tj ETQq1 1 0.784314 rgBT /Ove 0.8 21	0.8	21
40	Loschmidt echo in many-body localized phases. Physical Review B, 2017, 96, .	1.1	21
41	Entanglement transitions from restricted Boltzmann machines. Physical Review B, 2021, 104, .	1.1	19
42	Noninteracting central site model: Localization and logarithmic entanglement growth. Physical Review B, 2017, 96, .	1.1	15
43	Detection and characterization of many-body localization in central spin models. Physical Review B, 2018, 98, .	1.1	15
44	Area-Law Entangled Eigenstates from Nullspaces of Local Hamiltonians. Physical Review Letters, 2021, 127, 060602.	2.9	15
45	Onset of superconductivity in a voltage-biased normal-superconducting-normal microbridge. Physical Review B, 2013, 87, .	1.1	13
46	Spinon-phonon interaction in algebraic spin liquids. Physical Review B, 2013, 87, .	1.1	12
47	Stability of mobility edges in disordered interacting systems. Physical Review B, 2020, 102, .	1.1	9
48	Thouless energy across the many-body localization transition in Floquet systems. Physical Review B, 2021, 104, .	1.1	9
49	Detecting Induced $p \pm i p$ Pairing at the Al-InAs Interface with a Quantum Microwave Circuit. Physical Review Letters, 2022, 128, 107701.	2.9	9
50	Entanglement and precession in two-dimensional dynamical quantum phase transitions. Physical Review B, 2022, 105, .	1.1	7
51	Localization of a mobile impurity interacting with an Anderson insulator. Physical Review B, 2022, 105, .	1.1	5
52	Propagation of many-body localization in an Anderson insulator. Physical Review B, 2022, 105, .	1.1	5
53	Isotope effect on the superfluid density in conventional and high-temperature superconductors. Physical Review B, 2011, 83, .	1.1	3
54	Overscreened Kondo fixed point in $S=1$ spin liquid. Physical Review B, 2013, 88, .	1.1	3

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55	Gully quantum Hall ferromagnetism in biased trilayer graphene. Physical Review B, 2020, 101, .	1.1	3
56	Spontaneous Gully-Polarized Quantum Hall States in ABA Trilayer Graphene. Nano Letters, 2022, 22, 3317-3322.	4.5	3
57	Symmetry-allowed nonlinear orbital response across the topological phase transition in centrosymmetric materials. Physical Review B, 2022, 105, .	1.1	1
58	Duality approach to quantum annealing of the 3-variable exclusive-or satisfiability problem (3-XORSAT). Physical Review A, 2021, 104, .	1.0	1