Norman Y Yao

List of Publications by Year
in descending order

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94	9,809	41344	39675
papers	citations	49 h-index	94 g-index

95	95	95	7950
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Characterizing two-dimensional superconductivity via nanoscale noise magnetometry with single-spin qubits. Physical Review B, 2022, 105, .	3.2	14
2	Single-spin qubit magnetic spectroscopy of two-dimensional superconductivity. Physical Review Research, 2022, 4, .	3.6	12
3	Measurement-Induced Transition in Long-Range Interacting Quantum Circuits. Physical Review Letters, 2022, 128, 010604.	7.8	82
4	Enhancing scalability of a matrix-free eigensolver for studying many-body localization. International Journal of High Performance Computing Applications, 2022, 36, 307-319.	3.7	1
5	Quantum gas microscopy of Kardar-Parisi-Zhang superdiffusion. Science, 2022, 376, 716-720.	12.6	76
6	Many-Body Chaos in the Sachdev-Ye-Kitaev Model. Physical Review Letters, 2021, 126, 030602.	7.8	53
7	Preparation of Low Entropy Correlated Many-Body States via Conformal Cooling Quenches. Physical Review Letters, 2021, 126, 103401.	7.8	6
8	Emergent Ergodicity at the Transition between Many-Body Localized Phases. Physical Review Letters, 2021, 126, 100604.	7.8	19
9	Programmable quantum simulations of spin systems with trapped ions. Reviews of Modern Physics, 2021, 93, .	45.6	316
10	Quantum Information Scrambling on a Superconducting Qutrit Processor. Physical Review X, 2021, 11, .	8.9	126
11	Performance of the rigorous renormalization group for first-order phase transitions and topological phases. Physical Review B, 2021, 103, .	3.2	5
12	Floquet engineering ultracold polar molecules to simulate topological insulators. Physical Review A, 2021, 103, .	2.5	13
13	Observation of a prethermal discrete time crystal. Science, 2021, 372, 1192-1196.	12.6	93
14	Realizing Hopf Insulators in Dipolar Spin Systems. Physical Review Letters, 2021, 127, 015301.	7.8	18
15	Optically Enhanced Electric Field Sensing Using Nitrogen-Vacancy Ensembles. Physical Review Applied, 2021, 16, .	3.8	22
16	Emergent hydrodynamics in a strongly interacting dipolar spin ensemble. Nature, 2021, 597, 45-50.	27.8	37
17	Floquet Phases of Matter via Classical Prethermalization. Physical Review Letters, 2021, 127, 140603.	7.8	26
18	Dynamic Tuning of MoirÃ© Excitons in a WSe₂/WS₂ Heterostructure via Mechanical Deformation. Nano Letters, 2021, 21, 8910-8916.	9.1	15

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19	Many-bodyâ€“localized discrete time crystal with a programmable spin-based quantum simulator. Science, 2021, 374, 1474-1478.	12.6	80
20	Emergent Hydrodynamics in Nonequilibrium Quantum Systems. Physical Review Letters, 2020, 125, 030601.	7.8	27
21	Improved Lieb-Robinson bound for many-body Hamiltonians with power-law interactions. Physical Review A, 2020, 101, .	2.5	45
22	Symmetry-Enhanced Boundary Qubits at Infinite Temperature. Physical Review Letters, 2020, 125, 200506.	7.8	10
23	Symmetric Bloch oscillations of matter waves. Physical Review A, 2020, 102, .	2.5	21
24	Adiabatic ground state preparation in an expanding lattice. Physical Review B, 2020, 101, .	3.2	1
25	Discrete Time Crystals. Annual Review of Condensed Matter Physics, 2020, 11, 467-499.	14.5	146
26	Spatial coherence of a strongly interacting Bose gas in the trimerized kagome lattice. Physical Review A, 2020, 101, .	2.5	7
27	Classical discrete time crystals. Nature Physics, 2020, 16, 438-447.	16.7	85
28	Long-Range Prethermal Phases of Nonequilibrium Matter. Physical Review X, 2020, 10, .	8.9	61
29	A Scalable Matrix-Free Iterative Eigensolver for Studying Many-Body Localization. , 2020, , .		2
30	Topological polarons, quasiparticle invariants, and their detection in one-dimensional symmetry-protected phases. Physical Review B, 2019, 100, .	3.2	9
31	Probing Scrambling Using Statistical Correlations between Randomized Measurements. Physical Review X, 2019, 9, .	8.9	62
32	Disentangling Scrambling and Decoherence via Quantum Teleportation. Physical Review X, 2019, 9, .	8.9	68
33	Dicke time crystals in driven-dissipative quantum many-body systems. New Journal of Physics, 2019, 21, 073028.	2.9	90
34	Scrambling and complexity in phase space. Physical Review A, 2019, 99, .	2.5	35
35	Verified quantum information scrambling. Nature, 2019, 567, 61-65.	27.8	219
36	Floquet Hopf Insulators. Physical Review Letters, 2019, 123, 266803.	7.8	24

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37	Imaging stress and magnetism at high pressures using a nanoscale quantum sensor. Science, 2019, 366, 1349-1354.	12.6	129
38	Exponentially slow heating in short and long-range interacting Floquet systems. Physical Review Research, 2019, 1, .	3.6	40
39	Probing and dressing magnetic impurities in a superconductor. Physical Review Research, 2019, 1, .	3.6	5
40	Proposal for the detection of magnetic monopoles in spin ice via nanoscale magnetometry. Physical Review B, 2018, 97, .	3.2	19
41	A quantum dipolar spin liquid. Nature Physics, 2018, 14, 405-410.	16.7	62
42	Imaging the Local Charge Environment of Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2018, 121, 246402.	7.8	84
43	Detection and characterization of many-body localization in central spin models. Physical Review B, 2018, 98, .	3.2	15
44	Time crystals in periodically driven systems. Physics Today, 2018, 71, 40-47.	0.3	54
45	Critical Thermalization of a Disordered Dipolar Spin System in Diamond. Physical Review Letters, 2018, 121, 023601.	7.8	107
46	Observation of a discrete time crystal. Nature, 2017, 543, 217-220.	27.8	764
47	Observation of discrete time-crystalline order in a disordered dipolar many-body system. Nature, 2017, 543, 221-225.	27.8	689
48	Discrete Time Crystals: Rigidity, Criticality, and Realizations. Physical Review Letters, 2017, 118, 030401.	7.8	393
49	Depolarization Dynamics in a Strongly Interacting Solid-State Spin Ensemble. Physical Review Letters, 2017, 118, 093601.	7.8	86
50	Direct Probe of Topological Invariants Using Bloch Oscillating Quantum Walks. Physical Review Letters, 2017, 118, 130501.	7.8	78
51	Floquet Symmetry-Protected Topological Phases in Cold-Atom Systems. Physical Review Letters, 2017, 119, 123601.	7.8	94
52	Dynamical Engineering of Interactions in Qudit Ensembles. Physical Review Letters, 2017, 119, 183603.	7.8	36
53	Long coherence times for edge spins. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 063105.	2.3	69
54	Dynamics of quantum information in many-body localized systems. Physical Review B, 2017, 96, .	3.2	24

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55	Observing Topological Invariants Using Quantum Walks in Superconducting Circuits. Physical Review X, 2017, 7, .	8.9	92
56	Quasi-Many-Body Localization in Translation-Invariant Systems. Physical Review Letters, 2016, 117, 240601.	7.8	116
57	Adiabatic Quantum Search in Open Systems. Physical Review Letters, 2016, 117, 150501.	7.8	21
58	Localization goes long. Nature Physics, 2016, 12, 894-895.	16.7	1
59	Spin transport of weakly disordered Heisenberg chain at infinite temperature. Physical Review B, 2016, 93, .	3.2	61
60	Interferometric measurements of many-body topological invariants using mobile impurities. Nature Communications, 2016, 7, 11994.	12.8	58
61	Topological bands with a Chern number<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>C</mml:mi><mml:mo>=</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:math> dipolar exchange interactions. Physical Review A, 2015, 91, .	2.5	62
62	Bilayer fractional quantum Hall states with dipoles. Physical Review A, 2015, 92, .	2.5	9
63	State-selective intersystem crossing in nitrogen-vacancy centers. Physical Review B, 2015, 91, .	3.2	91
64	Continuous Preparation of a Fractional Chern Insulator. Physical Review Letters, 2015, 115, 026802.	7.8	30
65	Phonon-Induced Population Dynamics and Intersystem Crossing in Nitrogen-Vacancy Centers. Physical Review Letters, 2015, 114, 145502.	7.8	127
66	Fractional quantum Hall states of Rydberg polaritons. Physical Review A, 2015, 91, .	2.5	42
67	Many-Body Dynamics of Dipolar Molecules in an Optical Lattice. Physical Review Letters, 2014, 113, 195302.	7.8	162
68	Many-Body Localization in Dipolar Systems. Physical Review Letters, 2014, 113, 243002.	7.8	204
69	Interferometric Probes of Many-Body Localization. Physical Review Letters, 2014, 113, 147204.	7.8	153
70	Enhanced Antiferromagnetic Exchange between Magnetic Impurities in a Superconducting Host. Physical Review Letters, 2014, 113, 087202.	7.8	53
71	Topologically protected excitons in porphyrin thinÂfilms. Nature Materials, 2014, 13, 1026-1032.	27.5	55
72	Phase diagram and excitations of a Shiba molecule. Physical Review B, 2014, 90, .	3.2	31

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73	Nanometre-scale thermometry in a living cell. Nature, 2013, 500, 54-58.	27.8	1,440
74	Topologically protected quantum state transfer in a chiral spin liquid. Nature Communications, 2013, 4, 1585.	12.8	67
75	Timekeeping with electron spin states in diamond. Physical Review A, 2013, 87, .	2.5	52
76	Phonon-Induced Spin-Spin Interactions in Diamond Nanostructures: Application to Spin Squeezing. Physical Review Letters, 2013, 110, 156402.	7.8	226
77	Realizing Fractional Chern Insulators in Dipolar Spin Systems. Physical Review Letters, 2013, 110, 185302.	7.8	167
78	Collectively Enhanced Interactions in Solid-State Spin Qubits. Physical Review Letters, 2013, 110, 067601.	7.8	23
79	Quantum logic between remote quantum registers. Physical Review A, 2013, 87, .	2.5	35
80	Controllable quantum spin glasses with magnetic impurities embedded in quantum solids. Physical Review B, 2013, 88, .	3.2	9
81	Stress-Enhanced Gelation: A Dynamic Nonlinearity of Elasticity. Physical Review Letters, 2013, 110, 018103.	7.8	52
82	Unforgeable noise-tolerant quantum tokens. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16079-16082.	7.1	42
83	Long-Range Quantum Gates using Dipolar Crystals. Physical Review Letters, 2012, 108, 100501.	7.8	21
84	Topological Flat Bands from Dipolar Spin Systems. Physical Review Letters, 2012, 109, 266804.	7.8	96
85	Scalable architecture for a room temperature solid-state quantum information processor. Nature Communications, 2012, 3, 800.	12.8	190
86	Room-Temperature Quantum Bit Memory Exceeding One Second. Science, 2012, 336, 1283-1286.	12.6	707
87	Robust Quantum State Transfer in Random Unpolarized Spin Chains. Physical Review Letters, 2011, 106, 040505.	7.8	194
88	Nonlinear Viscoelasticity of Actin Transiently Cross-linked with Mutant Î±-Actinin-4. Journal of Molecular Biology, 2011, 411, 1062-1071.	4.2	42
89	Origins of Elasticity in Intermediate Filament Networks. Physical Review Letters, 2010, 104, 058101.	7.8	165
90	Elasticity in Ionically Cross-Linked Neurofilament Networks. Biophysical Journal, 2010, 98, 2147-2153.	0.5	52

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91	Cross-Link-Governed Dynamics of Biopolymer Networks. Physical Review Letters, 2010, 105, 238101.	7.8	124
92	Probing nonlinear rheology with inertio-elastic oscillations. Journal of Rheology, 2008, 52, 1013-1025.	2.6	44
93	Characterizing the Non-Linear Rheology of Biopolymer Networks Using Inertio-Elastic Oscillations. AIP Conference Proceedings, 2008, , .	0.4	1
94	Chlorophyll Detection and Mapping of Shallow Water Impoundments Using Image Spectrometry. Research Letters in Ecology, 2008, 2008, 1-4.	0.6	5