

Markus Greiner

List of Publications by Year in Descending Order

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Version: 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

42
papers

6,675
citations

31
h-index

43
g-index

43
ext. papers

9,291
ext. citations

24
avg, IF

5.91
L-index

#	Paper	IF	Citations
42	Dispersive optical systems for scalable Raman driving of hyperfine qubits. <i>Physical Review A</i> , 2022 , 105,	2.6	1
41	A quantum processor based on coherent transport of entangled atom arrays.. <i>Nature</i> , 2022 , 604, 451-456	50.4	12
40	Quantum optimization of maximum independent set using Rydberg atom arrays.. <i>Science</i> , 2022 , 376, eabo6587	33.3	4
39	Probing topological spin liquids on a programmable quantum simulator. <i>Science</i> , 2021 , 374, 1242-1247	33.3	28
38	Analyzing Nonequilibrium Quantum States through Snapshots with Artificial Neural Networks. <i>Physical Review Letters</i> , 2021 , 127, 150504	7.4	1
37	Controlling quantum many-body dynamics in driven Rydberg atom arrays. <i>Science</i> , 2021 , 371, 1355-1359	33.3	31
36	Coupling a Mobile Hole to an Antiferromagnetic Spin Background: Transient Dynamics of a Magnetic Polaron. <i>Physical Review X</i> , 2021 , 11,	9.1	7
35	Correlator convolutional neural networks as an interpretable architecture for image-like quantum matter data. <i>Nature Communications</i> , 2021 , 12, 3905	17.4	8
34	Quantum phases of matter on a 256-atom programmable quantum simulator. <i>Nature</i> , 2021 , 595, 227-232	50.4	85
33	Quantum Simulators: Architectures and Opportunities. <i>PRX Quantum</i> , 2021 , 2,	6.1	47
32	Quantum critical behaviour at the many-body localization transition. <i>Nature</i> , 2019 , 573, 385-389	50.4	57
31	Implementation of a stable, high-power optical lattice for quantum gas microscopy. <i>Review of Scientific Instruments</i> , 2019 , 90, 033101	1.7	4
30	Quantum Kibble-Zurek mechanism and critical dynamics on a programmable Rydberg simulator. <i>Nature</i> , 2019 , 568, 207-211	50.4	144
29	Generation and manipulation of Schrödinger cat states in Rydberg atom arrays. <i>Science</i> , 2019 , 365, 570-574	33.3	192
28	Quantum Virtual Cooling. <i>Physical Review X</i> , 2019 , 9,	9.1	6
27	String patterns in the doped Hubbard model. <i>Science</i> , 2019 , 365, 251-256	33.3	48
26	Classifying snapshots of the doped Hubbard model with machine learning. <i>Nature Physics</i> , 2019 , 15, 921-924	33.3	45

25	Parallel Implementation of High-Fidelity Multiqubit Gates with Neutral Atoms. <i>Physical Review Letters</i> , 2019 , 123, 170503	7.4	144
24	Probing entanglement in a many-body-localized system. <i>Science</i> , 2019 , 364, 256-260	33.3	164
23	Integrating Neural Networks with a Quantum Simulator for State Reconstruction. <i>Physical Review Letters</i> , 2019 , 123, 230504	7.4	46
22	Quantum State Engineering of a Hubbard System with Ultracold Fermions. <i>Physical Review Letters</i> , 2018 , 120, 243201	7.4	53
21	High-Fidelity Control and Entanglement of Rydberg-Atom Qubits. <i>Physical Review Letters</i> , 2018 , 121, 123603	7.4	152
20	Parton Theory of Magnetic Polarons: Mesonic Resonances and Signatures in Dynamics. <i>Physical Review X</i> , 2018 , 8,	9.1	32
19	Microscopy of the interacting Harper-Hofstadter model in the two-body limit. <i>Nature</i> , 2017 , 546, 519-523	30.4	135
18	A cold-atom Fermi-Hubbard antiferromagnet. <i>Nature</i> , 2017 , 545, 462-466	50.4	329
17	Deborah S. Jin 1968-2016: Trailblazer of ultracold science. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 791-792	11.5	
16	Quantum correlations at infinite temperature: The dynamical Nagaoka effect. <i>Physical Review B</i> , 2017 , 96,	3.3	12
15	Probing many-body dynamics on a 51-atom quantum simulator. <i>Nature</i> , 2017 , 551, 579-584	50.4	849
14	Quantum thermalization through entanglement in an isolated many-body system. <i>Science</i> , 2016 , 353, 794-800	33.3	499
13	Site-resolved measurement of the spin-correlation function in the Fermi-Hubbard model. <i>Science</i> , 2016 , 353, 1253-6	33.3	182
12	Atom-by-atom assembly of defect-free one-dimensional cold atom arrays. <i>Science</i> , 2016 , 354, 1024-1027	33.3	325
11	Site-resolved imaging of a fermionic Mott insulator. <i>Science</i> , 2016 , 351, 953-7	33.3	114
10	Ultra-precise holographic beam shaping for microscopic quantum control. <i>Optics Express</i> , 2016 , 24, 13883-93	3.93	87
9	Strongly correlated quantum walks in optical lattices. <i>Science</i> , 2015 , 347, 1229-33	33.3	251
8	Quantum gas microscopy with spin, atom-number, and multilayer readout. <i>Physical Review A</i> , 2015 , 91,	2.6	44

- 7 Site-resolved imaging of fermionic ^6Li in an optical lattice. *Physical Review Letters*, **2015**, 114, 213002 7.4 196
- 6 Measuring entanglement entropy in a quantum many-body system. *Nature*, **2015**, 528, 77-83 50.4 549
- 5 Photon-assisted tunneling in a biased strongly correlated Bose gas. *Physical Review Letters*, **2011**, 107, 095301 7.4 93
- 4 Probing the superfluid-to-Mott insulator transition at the single-atom level. *Science*, **2010**, 329, 547-50 33.3 583
- 3 A quantum gas microscope for detecting single atoms in a Hubbard-regime optical lattice. *Nature*, **2009**, 462, 74-7 50.4 948
- 2 Quantum information processing in optical lattices and magnetic microtraps. *Fortschritte Der Physik*, **2006**, 54, 702-718 5.7 84
- 1 Quantum Information Processing in Optical Lattices and Magnetic Microtraps 121-144