

Christian Gross

List of Publications by Year in descending order

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50
papers

8,962
citations

87723

38
h-index

214527

47
g-index

50
all docs

50
docs citations

50
times ranked

5342
citing authors

#	ARTICLE	IF	CITATIONS
1	Blackbody-radiation-induced facilitated excitation of Rydberg atoms in optical tweezers. Physical Review A, 2022, 105, .	1.0	12
2	Realizing the symmetry-protected Haldane phase in Fermi-Hubbard ladders. Nature, 2022, 606, 484-488.	13.7	42
3	Microscopic evolution of doped Mott insulators from polaronic metal to Fermi liquid. Science, 2021, 374, 82-86.	6.0	48
4	Quantum gas microscopy for single atom and spin detection. Nature Physics, 2021, 17, 1316-1323.	6.5	57
5	Time-resolved observation of spin-charge deconfinement in fermionic Hubbard chains. Science, 2020, 367, 186-189.	6.0	81
6	A subradiant optical mirror formed by a single structured atomic layer. Nature, 2020, 583, 369-374.	13.7	160
7	Floquet Prethermalization in a Bose-Hubbard System. Physical Review X, 2020, 10, .	2.8	77
8	Robust Bilayer Charge Pumping for Spin- and Density-Resolved Quantum Gas Microscopy. Physical Review Letters, 2020, 125, 010403.	2.9	44
9	Imaging magnetic polarons in the doped Fermi-Hubbard model. Nature, 2019, 572, 358-362.	13.7	106
10	Many-Body Delocalization in the Presence of a Quantum Bath. Physical Review X, 2019, 9, .	2.8	62
11	Probing unitary two-time correlations in a neutral atom quantum simulator. Quantum Science and Technology, 2019, 4, 024005.	2.6	5
12	Qubit readout boost. Nature Physics, 2019, 15, 523-524.	6.5	0
13	Quantum gas microscopy of Rydberg macrodimers. Science, 2019, 364, 664-667.	6.0	47
14	Direct observation of incommensurate magnetism in Hubbard chains. Nature, 2019, 565, 56-60.	13.7	55
15	NOON states via a quantum walk of bound particles. Physical Review A, 2017, 95, .	1.0	12
16	Revealing hidden antiferromagnetic correlations in doped Hubbard chains via string correlators. Science, 2017, 357, 484-487.	6.0	144
17	Quantum simulations with ultracold atoms in optical lattices. Science, 2017, 357, 995-1001.	6.0	824
18	Coherent Many-Body Spin Dynamics in a Long-Range Interacting Ising Chain. Physical Review X, 2017, 7, .	2.8	156

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19	Optimal control of complex atomic quantum systems. <i>Scientific Reports</i> , 2016, 6, 34187.	1.6	105
20	Many-body interferometry of a Rydberg-dressed spin lattice. <i>Nature Physics</i> , 2016, 12, 1095-1099.	6.5	258
21	Spin- and density-resolved microscopy of antiferromagnetic correlations in Fermi-Hubbard chains. <i>Science</i> , 2016, 353, 1257-1260.	6.0	291
22	Exploring the many-body localization transition in two dimensions. <i>Science</i> , 2016, 352, 1547-1552.	6.0	694
23	Microscopic Characterization of Scalable Coherent Rydberg Superatoms. <i>Physical Review X</i> , 2015, 5, .	2.8	96
24	Tracking ultracold many-body systems in real time. <i>New Journal of Physics</i> , 2015, 17, 111004.	1.2	0
25	Designing Frustrated Quantum Magnets with Laser-Dressed Rydberg Atoms. <i>Physical Review Letters</i> , 2015, 114, 173002.	2.9	150
26	Dynamical preparation of laser-excited anisotropic Rydberg crystals in 2D optical lattices. <i>New Journal of Physics</i> , 2015, 17, 013008.	1.2	16
27	Crystallization in Ising quantum magnets. <i>Science</i> , 2015, 347, 1455-1458.	6.0	240
28	Far-from-Equilibrium Spin Transport in Heisenberg Quantum Magnets. <i>Physical Review Letters</i> , 2014, 113, 147205.	2.9	168
29	Single-site- and single-atom-resolved measurement of correlation functions. <i>Applied Physics B: Lasers and Optics</i> , 2013, 113, 27-39.	1.1	53
30	Microscopic observation of magnon bound states and their dynamics. <i>Nature</i> , 2013, 502, 76-79.	13.7	345
31	Quantum dynamics of a mobile spin impurity. <i>Nature Physics</i> , 2013, 9, 235-241.	6.5	418
32	Measuring and engineering entropy and spin squeezing in weakly linked Bose-Einstein condensates. <i>New Journal of Physics</i> , 2013, 15, 063035.	1.2	4
33	Light-cone-like spreading of correlations in a quantum many-body system. <i>Nature</i> , 2012, 481, 484-487.	13.7	645
34	Spin squeezing, entanglement and quantum metrology with Bose-Einstein condensates. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 103001.	0.6	112
35	Observation of spatially ordered structures in a two-dimensional Rydberg gas. <i>Nature</i> , 2012, 491, 87-91.	13.7	451
36	The "Higgs" amplitude mode at the two-dimensional superfluid/Mott insulator transition. <i>Nature</i> , 2012, 487, 454-458.	13.7	280

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37	Spin Squeezing and Non-linear Atom Interferometry with Bose-Einstein Condensates. Springer Theses, 2012, , .	0.0	2
38	Observation of Correlated Particle-Hole Pairs and String Order in Low-Dimensional Mott Insulators. Science, 2011, 334, 200-203.	6.0	246
39	Einstein-Podolsky-Rosen Correlations of Ultracold Atomic Gases. Physical Review Letters, 2011, 106, 120404.	2.9	35
40	Einstein-Podolsky-Rosen Entanglement Strategies in Two-Well Bose-Einstein Condensates. Physical Review Letters, 2011, 106, 120405.	2.9	73
41	Atomic homodyne detection of continuous-variable entangled twin-atom states. Nature, 2011, 480, 219-223.	13.7	177
42	Rabi Flopping Induces Spatial Demixing Dynamics. Physical Review Letters, 2011, 107, 193001.	2.9	73
43	Local and spatially extended sub-Poisson atom-number fluctuations in optical lattices. Physical Review A, 2011, 84, .	1.0	17
44	SQUEEZING AND ENTANGLEMENT IN A BOSE-EINSTEIN CONDENSATE. , 2010, , .		3
45	Nonlinear atom interferometer surpasses classical precision limit. Nature, 2010, 464, 1165-1169.	13.7	744
46	Classical Bifurcation at the Transition from Rabi to Josephson Dynamics. Physical Review Letters, 2010, 105, 204101.	2.9	331
47	Multiple atomic dark solitons in cigar-shaped Bose-Einstein condensates. Physical Review A, 2010, 81, .	1.0	112
48	Squeezing and entanglement in a Bose-Einstein condensate. Nature, 2008, 455, 1216-1219.	13.7	636
49	Experimental Observation of Oscillating and Interacting Matter Wave Dark Solitons. Physical Review Letters, 2008, 101, 130401.	2.9	252
50	Coherent and incoherent spectral broadening in a photonic crystal fiber. Optics Letters, 2007, 32, 1767.	1.7	3