Christian Gross

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8278680/publications.pdf

Version: 2024-02-01

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	Quantum simulations with ultracold atoms in optical lattices. Science, 2017, 357, 995-1001.	6.0	824
2	Nonlinear atom interferometer surpasses classical precision limit. Nature, 2010, 464, 1165-1169.	13.7	744
3	Exploring the many-body localization transition in two dimensions. Science, 2016, 352, 1547-1552.	6.0	694
4	Light-cone-like spreading of correlations in a quantum many-body system. Nature, 2012, 481, 484-487.	13.7	645
5	Squeezing and entanglement in a Boseâ€“Einstein condensate. Nature, 2008, 455, 1216-1219.	13.7	636
6	Observation of spatially ordered structures in a two-dimensional Rydberg gas. Nature, 2012, 491, 87-91.	13.7	451
7	Quantum dynamics of a mobile spin impurity. Nature Physics, 2013, 9, 235-241.	6.5	418
8	Microscopic observation of magnon bound states and their dynamics. Nature, 2013, 502, 76-79.	13.7	345
9	Classical Bifurcation at the Transition from Rabi to Josephson Dynamics. Physical Review Letters, 2010, 105, 204101.	2.9	331
10	Spin- and density-resolved microscopy of antiferromagnetic correlations in Fermi-Hubbard chains. Science, 2016, 353, 1257-1260.	6.0	291
11	The â€˜Higgsâ€™ amplitude mode at the two-dimensional superfluid/Mott insulator transition. Nature, 2012, 487, 454-458.	13.7	280
12	Many-body interferometry of a Rydberg-dressed spinÂlattice. Nature Physics, 2016, 12, 1095-1099.	6.5	258
13	Experimental Observation of Oscillating and Interacting Matter Wave Dark Solitons. Physical Review Letters, 2008, 101, 130401.	2.9	252
14	Observation of Correlated Particle-Hole Pairs and String Order in Low-Dimensional Mott Insulators. Science, 2011, 334, 200-203.	6.0	246
15	Crystallization in Ising quantum magnets. Science, 2015, 347, 1455-1458.	6.0	240
16	Atomic homodyne detection of continuous-variable entangled twin-atom states. Nature, 2011, 480, 219-223.	13.7	177
17	Far-from-Equilibrium Spin Transport in Heisenberg Quantum Magnets. Physical Review Letters, 2014, 113, 147205.	2.9	168
18	A subradiant optical mirror formed by a single structured atomic layer. Nature, 2020, 583, 369-374.	13.7	160

#	Article	IF	Citations
19	Coherent Many-Body Spin Dynamics in a Long-Range Interacting Ising Chain. Physical Review X, 2017, 7, .	2.8	156
20	Designing Frustrated Quantum Magnets with Laser-Dressed Rydberg Atoms. Physical Review Letters, 2015, 114, 173002.	2.9	150
21	Revealing hidden antiferromagnetic correlations in doped Hubbard chains via string correlators. Science, 2017, 357, 484-487.	6.0	144
22	Multiple atomic dark solitons in cigar-shaped Bose-Einstein condensates. Physical Review A, 2010, 81, .	1.0	112
23	Spin squeezing, entanglement and quantum metrology with Boseâ€“Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 103001.	0.6	112
24	Imaging magnetic polarons in the doped Fermiâ€“Hubbard model. Nature, 2019, 572, 358-362.	13.7	106
25	Optimal control of complex atomic quantum systems. Scientific Reports, 2016, 6, 34187.	1.6	105
26	Microscopic Characterization of Scalable Coherent Rydberg Superatoms. Physical Review X, 2015, 5, .	2.8	96
27	Time-resolved observation of spin-charge deconfinement in fermionic Hubbard chains. Science, 2020, 367, 186-189.	6.0	81
28	Floquet Prethermalization in a Bose-Hubbard System. Physical Review X, 2020, 10, .	2.8	77
29	Einstein-Podolsky-Rosen Entanglement Strategies in Two-Well Bose-Einstein Condensates. Physical Review Letters, 2011, 106, 120405.	2.9	73
30	Rabi Flopping Induces Spatial Demixing Dynamics. Physical Review Letters, 2011, 107, 193001.	2.9	73
31	Many-Body Delocalization in the Presence of a Quantum Bath. Physical Review X, 2019, 9, .	2.8	62
32	Quantum gas microscopy for single atom and spin detection. Nature Physics, 2021, 17, 1316-1323.	6.5	57
33	Direct observation of incommensurate magnetism in Hubbard chains. Nature, 2019, 565, 56-60.	13.7	55
34	Single-site- and single-atom-resolved measurement of correlation functions. Applied Physics B: Lasers and Optics, 2013, 113, 27-39.	1.1	53
35	Microscopic evolution of doped Mott insulators from polaronic metal to Fermi liquid. Science, 2021, 374, 82-86.	6.0	48
36	Quantum gas microscopy of Rydberg macrodimers. Science, 2019, 364, 664-667.	6.0	47

#	Article	IF	Citations
37	Robust Bilayer Charge Pumping for Spin- and Density-Resolved Quantum Gas Microscopy. Physical Review Letters, 2020, 125, 010403.	2.9	44
38	Realizing the symmetry-protected Haldane phase in Fermiâ€“Hubbard ladders. Nature, 2022, 606, 484-488.	13.7	42
39	Einstein-Podolsky-Rosen Correlations of Ultracold Atomic Gases. Physical Review Letters, 2011, 106, 120404.	2.9	35
40	Local and spatially extended sub-Poisson atom-number fluctuations in optical lattices. Physical Review A, 2011, 84, .	1.0	17
41	Dynamical preparation of laser-excited anisotropic Rydberg crystals in 2D optical lattices. New Journal of Physics, 2015, 17, 013008.	1.2	16
42	NOON states via a quantum walk of bound particles. Physical Review A, 2017, 95, .	1.0	12
43	Blackbody-radiation-induced facilitated excitation of Rydberg atoms in optical tweezers. Physical Review A, 2022, 105, .	1.0	12
44	Probing unitary two-time correlations in a neutral atom quantum simulator. Quantum Science and Technology, 2019, 4, 024005.	2.6	5
45	Measuring and engineering entropy and spin squeezing in weakly linked Boseâ€“Einstein condensates. New Journal of Physics, 2013, 15, 063035.	1.2	4
46	Coherent and incoherent spectral broadening in a photonic crystal fiber. Optics Letters, 2007, 32, 1767.	1.7	3
47	SQUEEZING AND ENTANGLEMENT IN A BOSE-EINSTEIN CONDENSATE. , 2010, , .		3
48	Spin Squeezing and Non-linear Atom Interferometry with Bose-Einstein Condensates. Springer Theses, 2012, , .	0.0	2
49	Tracking ultracold many-body systems in real time. New Journal of Physics, 2015, 17, 111004.	1.2	0
50	Qubit readout boost. Nature Physics, 2019, 15, 523-524.	6.5	0