

Klaus Sengstock

List of Publications by Year in descending order

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45
papers

4,869
citations

201674

27
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233421

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all docs

45
docs citations

45
times ranked

3205
citing authors

#	ARTICLE	IF	CITATIONS
1	Formation of Spontaneous Density-Wave Patterns in dc Driven Lattices. Physical Review X, 2022, 12, .	8.9	9
2	Interorbital interactions in an $SU(2)$ -symmetric Fermi-Fermi mixture. Physical Review A, 2021, 103, .	5.0	2
3	Unsupervised machine learning of topological phase transitions from experimental data. Machine Learning: Science and Technology, 2021, 2, 035037.	5.0	41
4	Ultrafast electron cooling in an expanding ultracold plasma. Nature Communications, 2021, 12, 596.	12.8	10
5	Quantum gas magnifier for sub-lattice-resolved imaging of 3D quantum systems. Nature, 2021, 599, 571-575.	27.8	14
6	Topological proximity effects in a Haldane graphene bilayer system. Physical Review B, 2019, 100, .	3.2	12
7	Identifying quantum phase transitions using artificial neural networks on experimental data. Nature Physics, 2019, 15, 917-920.	16.7	150
8	Measuring topology from dynamics by obtaining the Chern number from a linking number. Nature Communications, 2019, 10, 1728.	12.8	130
9	Measuring quantized circular dichroism in ultracold topological matter. Nature Physics, 2019, 15, 449-454.	16.7	106
10	Dynamics of ultracold quantum gases in the dissipative Fermi-Hubbard model. Quantum Science and Technology, 2019, 4, 014002.	5.8	51
11	Observation of dynamical vortices after quenches in a system with topology. Nature Physics, 2018, 14, 265-268.	16.7	263
12	High-precision multiband spectroscopy of ultracold fermions in a nonseparable optical lattice. Physical Review A, 2018, 97, .	2.5	15
13	Charge density wave and charge pump of interacting fermions in circularly shaken hexagonal optical lattices. Physical Review A, 2018, 98, .	2.5	15
14	Absolute strong-field ionization probabilities of ultracold rubidium atoms. Communications Physics, 2018, 1, .	5.3	22
15	Investigation of Feshbach resonances in ultracold K spin mixtures. Physical Review A, 2017, 95, .	2.5	7
16	Observation of Topological Bloch-State Defects and Their Merging Transition. Physical Review Letters, 2017, 118, 240403.	7.8	26
17	Driving protocol for a Floquet topological phase without static counterpart. New Journal of Physics, 2017, 19, 113010.	2.9	32
18	Modified spin-wave theory and spin-liquid behavior of cold bosons on an inhomogeneous triangular lattice. Physical Review B, 2016, 94, .	3.2	6

#	ARTICLE	IF	CITATIONS
19	Experimental reconstruction of the Berry curvature in a Floquet Bloch band. <i>Science</i> , 2016, 352, 1091-1094.	12.6	358
20	Breaking inversion symmetry in a state-dependent honeycomb lattice: artificial graphene with tunable band gap. <i>2D Materials</i> , 2016, 3, 024005.	4.4	21
21	Multiphoton interband excitations of quantum gases in driven optical lattices. <i>Physical Review A</i> , 2015, 92, .	2.5	65
22	Quantum phases in tunable state-dependent hexagonal optical lattices. <i>Physical Review A</i> , 2014, 90, .	2.5	28
23	Relaxation Dynamics of an Isolated Large-Spin Fermi Gas Far from Equilibrium. <i>Physical Review X</i> , 2014, 4, .	8.9	10
24	Giant Spin Oscillations in an Ultracold Fermi Sea. <i>Science</i> , 2014, 343, 157-160.	12.6	46
25	Spin-orbit coupling in periodically driven optical lattices. <i>Physical Review A</i> , 2014, 90, .	2.5	54
26	Engineering novel optical lattices. <i>Reports on Progress in Physics</i> , 2013, 76, 086401.	20.1	122
27	Engineering Ising-XY spin-models in a triangular lattice using tunable artificial gauge fields. <i>Nature Physics</i> , 2013, 9, 738-743.	16.7	286
28	Engineering Spin Waves in a High-Spin Ultracold Fermi Gas. <i>Physical Review Letters</i> , 2013, 110, 250402.	7.8	20
29	Intrinsic Photoconductivity of Ultracold Fermions in Optical Lattices. <i>Physical Review Letters</i> , 2013, 110, 085302.	7.8	27
30	Tunable gauge potential for spinless particles in driven lattices. <i>EPJ Web of Conferences</i> , 2013, 57, 01004.	0.3	1
31	Non-Abelian Gauge Fields and Topological Insulators in Shaken Optical Lattices. <i>Physical Review Letters</i> , 2012, 109, 145301.	7.8	287
32	Coherent multi-flavour spin dynamics in a fermionic quantum gas. <i>Nature Physics</i> , 2012, 8, 813-818.	16.7	68
33	Quantum phase transition to unconventional multi-orbital superfluidity in optical lattices. <i>Nature Physics</i> , 2012, 8, 71-75.	16.7	144
34	Tunable Gauge Potential for Neutral and Spinless Particles in Driven Optical Lattices. <i>Physical Review Letters</i> , 2012, 108, 225304.	7.8	523
35	Multiband Spectroscopy of Ultracold Fermions: Observation of Reduced Tunneling in Attractive Bose-Fermi Mixtures. <i>Physical Review Letters</i> , 2011, 107, 135303.	7.8	58
36	Quantum Simulation of Frustrated Classical Magnetism in Triangular Optical Lattices. <i>Science</i> , 2011, 333, 996-999.	12.6	543

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37	Multi-component quantum gases in spin-dependent hexagonal lattices. Nature Physics, 2011, 7, 434-440.	16.7	275
38	Probing superfluids in optical lattices by momentum-resolved Bragg spectroscopy. Nature Physics, 2010, 6, 56-61.	16.7	180
39	Frustrated quantum antiferromagnetism with ultracold bosons in a triangular lattice. Europhysics Letters, 2010, 89, 10010.	2.0	131
40	Ultracold quantum gases in triangular optical lattices. New Journal of Physics, 2010, 12, 065025.	2.9	184
41	Physics with coherent matter waves. Reports on Progress in Physics, 2004, 67, 907-963.	20.1	153
42	Dynamics of $F=2$ Spinor Bose-Einstein Condensates. Physical Review Letters, 2004, 92, 040402.	7.8	306
43	Das ideale Quantenlabor: Bose-Einstein-Kondensation. Physik in Unserer Zeit, 2003, 34, 168-176.	0.0	5
44	Magnetic guiding of a slow metastable beam. Optics Communications, 2002, 204, 185-194.	2.1	5
45	Polarization-gradient cooling in a strong doughnut-mode dipole potential. Physical Review A, 1998, 58, 3068-3079.	2.5	52