

Christian RÃ¼egg

List of Publications by Year in descending order

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88
papers

3,753
citations

172457

29
h-index

123424

61
g-index

89
all docs

89
docs citations

89
times ranked

3337
citing authors

#	ARTICLE	IF	CITATIONS
1	Bose-Einstein condensation in magnetic insulators. Nature Physics, 2008, 4, 198-204.	16.7	597
2	Bose-Einstein condensation of the triplet states in the magnetic insulator TlCuCl ₃ . Nature, 2003, 423, 62-65.	27.8	437
3	Quantum Magnets under Pressure: Controlling Elementary Excitations in $TlCuCl_3$. Physical Review Letters, 2008, 100, 205701.	7.8	241
4	Thermodynamics of the Spin Luttinger Liquid in a Model Ladder Material. Physical Review Letters, 2008, 101, 247202.	7.8	149
5	Quantum and classical criticality in a dimerized quantum antiferromagnet. Nature Physics, 2014, 10, 373-379.	16.7	123
6	Observation of two types of fractional excitation in the Kitaev honeycomb magnet. Nature Physics, 2018, 14, 786-790.	16.7	120
7	Fractional antiferromagnetic skyrmion lattice induced by anisotropic couplings. Nature, 2020, 586, 37-41.	27.8	117
8	Statics and dynamics of weakly coupled antiferromagnetic spin-1 in a magnetic field. Physical Review B, 2011, 83, ...	3.2	107
9	Robustness of Basal-Plane Antiferromagnetic Order and the J_{\perp} in Single-Layer Iridate Spin-Orbit Mott Insulators. Physical Review Letters, 2013, 110, 117207.	7.8	107
10	Direct Observation of Magnon Fractionalization in the Quantum Spin Ladder. Physical Review Letters, 2009, 102, 107204.	7.8	105
11	Pressure-Induced Quantum Phase Transition in the Spin-Liquid TlCuCl ₃ . Physical Review Letters, 2004, 93, 257201.	7.8	98
12	Spiral spin-liquid and the emergence of a vortex-like state in MnSc ₂ S ₄ . Nature Physics, 2017, 13, 157-161.	16.7	88
13	Field-controlled magnetic order in the quantum spin-ladder system H_{pip} . Physical Review B, 2009, 79, ...	3.2	80
14	4-spin plaquette singlet state in the Shastry-Sutherland compound SrCu ₂ (BO ₃) ₂ . Nature Physics, 2017, 13, 962-966.	16.7	75
15	Topological quantum phase transition in the Ising-like antiferromagnetic spin chain BaCo ₂ V ₂ O ₈ . Nature Physics, 2018, 14, 716-722.	16.7	66
16	Multiple Magnon Modes and Consequences for the Bose-Einstein Condensed Phase in BaCuSi ₂ O ₆ . Physical Review Letters, 2007, 98, 017202.	7.8	55
17	Diverging Thermal Expansion of the Spin-Ladder System (C ₅ H ₁₂ N) ₂ CuBr ₄ . Physical Review Letters, 2008, 100, 067208.	7.8	55
18	Spin-orbit-induced orbital excitations in Sr_2Ca_2 . A resonant inelastic x-ray sca. Physical Review B, 2015, 91, ...	3.2	46

#	ARTICLE	IF	CITATIONS
19	Quantum Statistics of Interacting Dimer Spin Systems. Physical Review Letters, 2005, 95, 267201.	7.8	45
20	Triplet excitations in low-Hcspin-gap systemsKCuCl3andTiCuCl3:An inelastic neutron scattering study. Physical Review B, 2002, 65, .	3.2	44
21	Spin-Wave Spectrum of the Quantum Ferromagnet on the Pyrochlore Lattice $\sqrt{V}O$	7.8	43
22	Anisotropic Cascade of Field-Induced Phase Transitions in the Frustrated Spin-Ladder System BiCu_2PO_7	7.8	37
23	Pressure dependence of the magnetic order in CrAs: A neutron diffraction investigation. Physical Review B, 2015, 91, .	3.2	37
24	Pressure-induced electronic phase separation of magnetism and superconductivity in CrAs. Scientific Reports, 2015, 5, 13788.	3.3	37
25	Strong coupling of Sm and Fe magnetism in SmFeAsO as revealed by magnetic x-ray scattering. Physical Review B, 2011, 84, .	3.2	33
26	Quasiparticle-continuum level repulsion in a quantum magnet. Nature Physics, 2016, 12, 224-229.	16.7	33
27	Complete bond-operator theory of the two-chain spin ladder. Physical Review B, 2011, 83, .	3.2	32
28	Neutron Scattering Study of the Field-Dependent Ground State and the Spin Dynamics in Spin-One-HalfNH4CuCl3. Physical Review Letters, 2004, 93, 037207.	7.8	31
29	Inelastic x-ray scattering study of superconducting SmFeAsO SmFeAsO crystals: Evidence for strong momentum-dependent doping-induced renormalizations of optical phonons. Physical Review B, 2009, 80, .	3.2	30
30	Anisotropy of magnetic interactions in the spin-ladder compound(C5H12N)2CuBr4. Physical Review B, 2010, 82, .	3.2	30
31	Temperature renormalization of the magnetic excitations in S = 1/2 KCuCl3. European Physical Journal B, 2000, 18, 565-571.	1.5	29
32	Spin dynamics in the high-field phase of quantum-critical S =1/2 TiCuCl 3. Applied Physics A: Materials Science and Processing, 2002, 74, s840-s842.	2.3	29
33	Spin-spin correlations of the spin-ladder compound $\langle S_i \cdot S_{i+1} \rangle$ Physical Review B, 2008, 77, .	3.2	29
34	Electromagnon dispersion probed by inelastic X-ray scattering in LiCrO2. Nature Communications, 2016, 7, 13547.	12.8	29
35	Field-Induced Quantum Soliton Lattice in a Frustrated Two-Leg Spin- $S=1/2$ Ladder. Physical Review Letters, 2013, 110, 187201.	7.8	27
36	Magnetic entropy landscape and Gr1/4neisen parameter of a quantum spin ladder. Physical Review B, 2014, 89, .	3.2	27

#	ARTICLE	IF	CITATIONS
37	Evidence for spinon localization in the heat transport of the spin-$\frac{1}{2}$ ladder compound $\frac{1}{2}$		

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55	Bound States and Field-Polarized Haldane Modes in a Quantum Spin Ladder. Physical Review Letters, 2017, 118, 177202.	7.8	12
56	Quantum magnetism in molecular spin ladders probed with muon-spin spectroscopy. New Journal of Physics, 2018, 20, 103002.	2.9	12
57	Crystal electric field excitations in the quantum spin liquid candidate NaErS_2 . Physical Review B, 2020, 102, .	7.8	11
58	Thermal Control of Spin Excitations in the Coupled Ising-Chain Material RbCoCl_3 . Physical Review Letters, 2020, 124, 257201.	7.8	11
59	Impurities in the weakly coupled quantum spin chains Sr_2CuO_3 and SrCuO_2 . Physical Review B, 2017, 95, .	3.2	10
60	Revealing three-dimensional quantum criticality by Sr substitution in Han purple. Physical Review Research, 2021, 3, .	3.6	10
61	Multiple Magnetic Bilayers and Unconventional Criticality without Frustration in $\text{Ba}_6\text{Cu}_2\text{O}_8$. Physical Review Letters, 2020, 124, 177205.	7.8	11
62	A pinwheel without wind. Nature Physics, 2010, 6, 837-838.	16.7	8
63	Magnetic Field Dependence of Excitations Near Spin-Orbital Quantum Criticality. Physical Review Letters, 2017, 118, 067205.	7.8	8
64	Effects of Quantum Spin-1/2 Impurities on the Magnetic Properties of Zigzag Spin Chains. Physical Review Letters, 2017, 118, 107201.	7.8	8
65	Dimensional reduction by pressure in the magnetic framework material CuF_2 . Physical Review B, 2017, 96, .	3.2	7
66	Magnetic order in the quasi-one-dimensional Ising system RbCo_2Cl_3 . Physical Review B, 2021, 103, .	7.8	11
67	Stabilization of the tetragonal structure in $\text{Ba}_6\text{Cu}_2\text{O}_8$. Physical Review B, 2016, 93, .	3.2	6
68	Magnetic Phase Diagram of the Triangular Antiferromagnetic Cs_2CuCl_4 Mixed System. Annalen Der Physik, 2018, 530, 1800270.	2.4	6
69	Evolution of field-induced metastable phases in the Shastry-Sutherland lattice magnet TmB_4 . Physical Review B, 2020, 102, .	7.8	11
70	Multiphase competition in the quantum XY pyrochlore antiferromagnet CdYb_2 : Zero and applied magnetic field study. Physical Review B, 2019, 100, .	7.8	11
71	Spin dynamics in the BEC phase of the $S=1/2$ quantum spin system TlCuCl_3 . Journal of Magnetism and Magnetic Materials, 2004, 272-276, 195-196.	2.3	4
72	Bose-Einstein condensation in magnetic materials. Physica B: Condensed Matter, 2006, 385-386, 295-300.	2.7	4

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73	Crystal Growth with Oxygen Partial Pressure of the BaCuSi ₂ O ₆ and Ba _{1-x} Sr _x CuSi ₂ O ₆ Spin Dimer Compounds. Crystal Growth and Design, 2016, 16, 3416-3424.	3.0	4
74	A combined radial collimator and cooled beryllium filter for neutron scattering. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 819, 99-103.	1.6	4
75	Evaluation of HOPG mounting possibilities for multiplexing spectrometers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 858, 30-35.	1.6	4
76	Inelastic X-ray scattering investigations of lattice dynamics in SmFeAsO _{1-x} F superconductors. Journal of Physics and Chemistry of Solids, 2011, 72, 523-526.	4.0	3
77	Floating Zone Growth of Sr Substituted Han Purple: Ba _{0.9} Sr _{0.1} CuSi ₂ O ₆ . Crystals, 2019, 9, 273.	2.2	3
78	Field-induced anisotropy in the quasi-two-dimensional weakly anisotropic antiferromagnet [CuCl(py ₂) ₂]BF ₄ . Physical Review B, 2019, 99, .	3.2	3
79	TRIPLET MODES IN A QUANTUM SPIN LIQUID ACROSS THE CRITICAL FIELD. International Journal of Modern Physics B, 2002, 16, 3302-3305.	2.0	2
80	Interplay between structure and magnetism in the low-dimensional spin system: K(C ₈ H ₁₆ O ₄) ₂ CuCl ₃ ·H ₂ O. CrystEngComm, 2017, 19, 1028-1034.	2.6	2
81	Magnetic correlations in the triangular antiferromagnet FeGa ₂ S ₄ . Physical Review B, 2021, 104, .	3.2	2
82	Influence of the oxygen concentration on crystal growth and structure of the BaCuSi ₂ O _{6-x} and Ba _{1-x} Sr _x CuSi ₂ O _{6-x} spin dimer compounds. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s325-s326.	0.1	1
83	Observation of Anisotropic Exchange in a Spin Ladder by ESR. Acta Physica Polonica A, 2014, 126, 238-239.	0.5	0
84	Copper-pyrazine magnetic polymers under high pressure. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s88-s89.	0.1	0
85	Electron density analysis in quantum magnets. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s313-s313.	0.1	0
86	News from the Swiss Spallation Neutron Source SINQ: diffraction at non-ambient conditions. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s416-s416.	0.1	0
87	New antiferromagnets [CuX(py ₂) ₂](BF ₄) with X = Cl and Br. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s92-s92.	0.1	0
88	Spiral spin-liquid and a vortex-like state in MnSc ₂ S ₄ . Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C370-C370.	0.1	0