

# Christian RÃ¼egg

## List of Publications by Year in descending order

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88  
papers

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citations

172457

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docs citations

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times ranked

3337  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetic order in the quasi-one-dimensional Ising system $\text{RbCoCl}_2$ . Physical Review B, 2021, 103, .		
2	Revealing three-dimensional quantum criticality by Sr substitution in Han purple. Physical Review Research, 2021, 3, .	3.6	10
3	Magnetic correlations in the triangular antiferromagnet $\text{FeGa}_2\text{S}_4$ . Physical Review B, 2021, 104, .	3.2	2
4	Crystal electric field excitations in the quantum spin liquid candidate $\text{NaErS}_2$ . Physical Review B, 2020, 102, .		
5	Fractional antiferromagnetic skyrmion lattice induced by anisotropic couplings. Nature, 2020, 586, 37-41.	27.8	117
6	Evolution of field-induced metastable phases in the Shastry-Sutherland lattice magnet $\text{TmB}_4$ . Physical Review B, 2020, 102, .		
7	Thermal Control of Spin Excitations in the Coupled Ising-Chain Material $\text{RbCoCl}_3$ . Physical Review Letters, 2020, 124, 257201.	7.8	11
8	Multiple Magnetic Bilayers and Unconventional Criticality without Frustration in $\text{BaCu}_2\text{O}_6$ . Physical Review Letters, 2020, 124, 177205.	7.8	11
9	Putative spin-nematic phase in $\text{BaCo}_2\text{V}_2\text{O}_8$ . Physical Review Letters, 2019, 123, 097204.		
10	Putative spin-nematic phase in $\text{BaCdVO}_4$ . Physical Review B, 2019, 100, .		
11	Multiphase competition in the quantum XY pyrochlore antiferromagnet $\text{CdYb}_2\text{O}_7$ : Zero and applied magnetic field study. Physical Review B, 2019, 100, .		
12	Floating Zone Growth of Sr Substituted Han Purple: $\text{Ba}_{0.9}\text{Sr}_{0.1}\text{CuSi}_2\text{O}_6$ . Crystals, 2019, 9, 273.	2.2	3
13	Field-induced anisotropy in the quasi-two-dimensional weakly anisotropic antiferromagnet $[\text{CuCl}(\text{pyz})_2]\text{BF}_4$ . Physical Review B, 2019, 99, .	3.2	3
14	Quasi-2D Heisenberg Antiferromagnets $[\text{CuX}(\text{pyz})_2](\text{BF}_4)$ with X = Cl and Br. Inorganic Chemistry, 2018, 57, 4934-4943.	4.0	16
15	Manifolds of magnetic ordered states and excitations in the almost Heisenberg pyrochlore antiferromagnet $\text{MgCr}_2\text{O}_4$ . Physical Review B, 2018, 98, 040401.	3.2	14
16	Dipolar Spin Ice States with a Fast Monopole Hopping Rate in $\text{CdEr}_2\text{O}_7$ . Physical Review B, 2018, 98, 040401.		

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19	Giant Pressure Dependence and Dimensionality Switching in a Metal-Organic Quantum Antiferromagnet. <i>Physical Review Letters</i> , 2018, 121, 117201.	7.8	14
20	Topological quantum phase transition in the Ising-like antiferromagnetic spin chain BaCo <sub>2</sub> V <sub>2</sub> O <sub>8</sub> . <i>Nature Physics</i> , 2018, 14, 716-722.	16.7	66
21	Observation of two types of fractional excitation in the Kitaev honeycomb magnet. <i>Nature Physics</i> , 2018, 14, 786-790.	16.7	120
22	Interplay between structure and magnetism in the low-dimensional spin system: K(C <sub>8</sub> H <sub>16</sub> O <sub>4</sub> ) <sub>2</sub> CuCl <sub>3</sub> ·H <sub>2</sub> O. <i>CrystEngComm</i> , 2017, 19, 1028-1034.	2.6	2
23	Magnetic Field Dependence of Excitations Near Spin-Orbital Quantum Criticality. <i>Physical Review Letters</i> , 2017, 118, 067205.	7.8	8
24	Effects of Quantum Spin-1/2 Impurities on the Magnetic Properties of Zigzag Spin Chains. <i>Physical Review Letters</i> , 2017, 118, 107201.	7.8	8
25	Evaluation of HOPG mounting possibilities for multiplexing spectrometers. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2017, 858, 30-35.	1.6	4
26	4-spin plaquette singlet state in the Shastry–Sutherland compound SrCu <sub>2</sub> (BO <sub>3</sub> ) <sub>2</sub> . <i>Nature Physics</i> , 2017, 13, 962-966.	16.7	75
27	Dimensional reduction by pressure in the magnetic framework material $\text{CuF}_2$ (pyz). From spin wave to spinon excitations. <i>Physical Review B</i> , 2017, 96, ...	3.2	7
28	Bound States and Field-Polarized Haldane Modes in a Quantum Spin Ladder. <i>Physical Review Letters</i> , 2017, 118, 177202.	7.8	12
29	Impurities in the weakly coupled quantum spin chains Sr <sub>2</sub> CuO <sub>3</sub> and SrCuO <sub>2</sub> . <i>Physical Review B</i> , 2017, 95, ...	3.2	10
30	Spiral spin-liquid and the emergence of a vortex-like state in MnSc <sub>2</sub> S <sub>4</sub> . <i>Nature Physics</i> , 2017, 13, 157-161.	16.7	88
31	Spiral spin-liquid and a vortex-like state in MnSc <sub>2</sub> S <sub>4</sub> . <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2017, 73, C370-C370.	0.1	0
32	Copper-pyrazine magnetic polymers under high pressure. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2016, 72, s88-s89.	0.1	0
33	Electromagnon dispersion probed by inelastic X-ray scattering in LiCrO <sub>2</sub> . <i>Nature Communications</i> , 2016, 7, 13547.	12.8	29
34	CAMEA – A novel multiplexing analyzer for neutron spectroscopy. <i>Review of Scientific Instruments</i> , 2016, 87, 035109.	1.3	24
35	Crystal Growth with Oxygen Partial Pressure of the BaCuSi <sub>2</sub> O <sub>6</sub> and Ba <sub>1-x</sub> Sr <sub>x</sub> CuSi <sub>2</sub> O <sub>6</sub> Spin Dimer Compounds. <i>Crystal Growth and Design</i> , 2016, 16, 3416-3424.	3.0	4
36	Europium-enabled luminescent single crystal and bulk YAG and YGG for optical imaging. <i>Optical Materials</i> , 2016, 60, 467-473.	3.6	23

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37	Stabilization of the tetragonal structure in $\text{BaCu}_2\text{O}_{6-x}$ . Physical Review B, 2016, 93, .	3.2	6
38	Influence of the oxygen concentration on crystal growth and structure of the $\text{BaCuSi}_2\text{O}_6$ and $\text{Ba}_{1-x}\text{Sr}_x\text{CuSi}_2\text{O}_6$ spin dimer compounds. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s325-s326.	0.1	1
39	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
40	Quasiparticle-continuum level repulsion in a quantum magnet. Nature Physics, 2016, 12, 224-229.	16.7	33
41	Electron density analysis in quantum magnets. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s313-s313.	0.1	0
42	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
43	New antiferromagnets $[\text{CuX}(\text{pyz})_2](\text{BF}_4)$ with X = Cl and Br. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s92-s92.	0.1	0
44	Pressure dependence of the magnetic order in CrAs: A neutron diffraction investigation. Physical Review B, 2015, 91, .	3.2	37
45	Spin-orbit-induced orbital excitations in $\text{SrCa}_2\text{As}_2$ . A resonant inelastic x-ray sca. Physical Review B, 2015, 91, .	3.1	46
46	Jahn-Teller versus quantum effects in the spin-orbital material $\text{LuVO}_3$ . Physical Review B, 2015, 91, .	3.2	12
47	Spinon, soliton, and breather in the spin-12 antiferromagnetic chain compound $\text{KCuGaF}_6$ . Physical Review B, 2015, 92, .	3.2	17
48	Pressure-induced electronic phase separation of magnetism and superconductivity in CrAs. Scientific Reports, 2015, 5, 13788.	3.3	37
49	Observation of Anisotropic Exchange in a Spin Ladder by ESR. Acta Physica Polonica A, 2014, 126, 238-239.	0.5	0
50	Quantum and classical criticality in a dimerized quantum antiferromagnet. Nature Physics, 2014, 10, 373-379.	16.7	123
51	Temperature dependence of the pressure induced monoclinic distortion in the spin Shastry-Sutherland compound $\text{SrCu}_2(\text{BO}_3)_2$ . Solid State Communications, 2014, 186, 13-17.	1.9	13
52	Magnetic entropy landscape and Gr $\frac{1}{4}$ neisen parameter of a quantum spin ladder. Physical Review B, 2014, 89, .	3.2	27
53	Spin-Wave Spectrum of the Quantum Ferromagnet on the Pyrochlore Lattice $\text{Lu}_2\text{V}_2\text{O}_7$ . Correlated Decay of Triplet Excitations in the Shastry-Sutherland Compound $\text{SrCu}_2(\text{BO}_3)_2$ . Physical Review B, 2014, 89, .	3.8	43
54	Pressure dependence of the magnetic order in CrAs: A neutron diffraction investigation. Physical Review B, 2015, 91, .	3.2	37

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55	Crystal Growth of the Nonmagnetic Zn <sup>2+</sup> and Magnetic Co <sup>2+</sup> Doped Quasi-One-Dimensional Spin Chain Compound SrCuO <sub>2</sub> Using the Traveling Solvent Floating Zone Method. <i>Crystal Growth and Design</i> , 2014, 14, 1184-1192.	3.0	14
56	Robustness of Basal-Plane Antiferromagnetic Order and the $J_{\perp}$ State in Single-Layer Iridate Spin-Orbit Mott Insulators. <i>Physical Review Letters</i> , 2013, 110, 117207.	7.8	107
57	Field-Induced Quantum Soliton Lattice in a Frustrated Two-Leg Spin-Ladder. <i>Physical Review Letters</i> , 2013, 110, 187201.	7.8	27
58	Spin ladders and quantum simulators for Tomonaga-Luttinger liquids. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 014004.	1.8	25
59	Anisotropic Cascade of Field-Induced Phase Transitions in the Frustrated Spin-Ladder System BiCu <sub>2</sub> PO. <i>Physical Review Letters</i> , 2012, 109, 167204.	7.8	37
60	Statics and dynamics of weakly coupled antiferromagnetic spin-1/2 chains in a magnetic field. <i>Physical Review B</i> , 2011, 83, .	3.2	107
61	Strong coupling of Sm and Fe magnetism in SmFeAsO as revealed by magnetic x-ray scattering. <i>Physical Review B</i> , 2011, 84, .	3.2	33
62	Inelastic X-ray scattering investigations of lattice dynamics in SmFeAsO <sub>1-x</sub> F superconductors. <i>Journal of Physics and Chemistry of Solids</i> , 2011, 72, 523-526.	4.0	3
63	Complete bond-operator theory of the two-chain spin ladder. <i>Physical Review B</i> , 2011, 83, .	3.2	32
64	Pressure dependence of phonon modes across the tetragonal to collapsed-tetragonal phase transition in CaFe <sub>2</sub> As <sub>2</sub> . <i>Physical Review B</i> , 2010, 81, .	3.2	14
65	Crystal growth and characterization of the dilutable frustrated spin-ladder compound Bi(Cu <sub>1-x</sub> Zn <sub>x</sub> ) <sub>2</sub> PO <sub>6</sub> . <i>Journal of Crystal Growth</i> , 2010, 313, 51-55.	1.5	20
66	A pinwheel without wind. <i>Nature Physics</i> , 2010, 6, 837-838.	16.7	8
67	Anisotropy of magnetic interactions in the spin-ladder compound (C <sub>5</sub> H <sub>12</sub> N) <sub>2</sub> CuBr <sub>4</sub> . <i>Physical Review B</i> , 2010, 82, .	3.2	30
68	Field-controlled magnetic order in the quantum spin-ladder system H <sub>2</sub> SiCl <sub>6</sub> . <i>Physical Review B</i> , 2009, 79, .	3.2	80
69	Inelastic x-ray scattering study of superconducting SmFeAsO crystals: Evidence for strong momentum-dependent doping-induced renormalizations of optical phonons. <i>Physical Review B</i> , 2009, 79, .	3.2	80
70	Evidence for spinon localization in the heat transport of the spin-1/2 ladder compound. <i>Physical Review B</i> , 2009, 79, .	3.2	80

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73	Quantum Magnets under Pressure: Controlling Elementary Excitations in $\text{TlCuCl}_3$ . Physical Review Letters, 2008, 100, 205701.	7.8	241
74	Thermodynamics of the Spin Luttinger Liquid in a Model Ladder Material. Physical Review Letters, 2008, 101, 247202.	7.8	149
75	Diverging Thermal Expansion of the Spin-Ladder System $(\text{C}_5\text{H}_{12}\text{N})_2\text{CuBr}_4$ . Physical Review Letters, 2008, 100, 067208.	7.8	55
76	Spin-spin correlations of the spin-ladder compound $\text{C}_6\text{H}_8\text{N}_2\text{CuBr}_4$ . Physical Review B, 2008, 77, .	3.2	29
77	Multiple Magnon Modes and Consequences for the Bose-Einstein Condensed Phase in $\text{BaCuSi}_2\text{O}_6$ . Physical Review Letters, 2007, 98, 017202.	7.8	55
78	Magnetic phase diagram of heavy-fermion $\text{YbAgGe}$ . Physica B: Condensed Matter, 2006, 378-380, 669-670.	2.7	12
79	Bose-Einstein condensation in magnetic materials. Physica B: Condensed Matter, 2006, 385-386, 295-300.	2.7	4
80	Quantum Statistics of Interacting Dimer Spin Systems. Physical Review Letters, 2005, 95, 267201.	7.8	45
81	Neutron Scattering Study of the Field-Dependent Ground State and the Spin Dynamics in Spin-One-Half $\text{NH}_4\text{CuCl}_3$ . Physical Review Letters, 2004, 93, 037207.	7.8	31
82	Pressure-Induced Quantum Phase Transition in the Spin-Liquid $\text{TlCuCl}_3$ . Physical Review Letters, 2004, 93, 257201.	7.8	98
83	Spin dynamics in the BEC phase of the $S=1/2$ quantum spin system $\text{TlCuCl}_3$ . Journal of Magnetism and Magnetic Materials, 2004, 272-276, 195-196.	2.3	4
84	Bose-Einstein condensation of the triplet states in the magnetic insulator $\text{TlCuCl}_3$ . Nature, 2003, 423, 62-65.	27.8	437
85	Triplet excitations in low- $H_c$ spin-gap systems $\text{KCuCl}_3$ and $\text{TlCuCl}_3$ : An inelastic neutron scattering study. Physical Review B, 2002, 65, .	3.2	44
86	TRIplet MODES IN A QUANTUM SPIN LIQUID ACROSS THE CRITICAL FIELD. International Journal of Modern Physics B, 2002, 16, 3302-3305.	2.0	2
87	Spin dynamics in the high-field phase of quantum-critical $S=1/2$ $\text{TlCuCl}_3$ . Applied Physics A: Materials Science and Processing, 2002, 74, s840-s842.	2.3	29
88	Temperature renormalization of the magnetic excitations in $S=1/2$ $\text{KCuCl}_3$ . European Physical Journal B, 2000, 18, 565-571.	1.5	29