

# Thomas Lorenz

## List of Publications by Year in descending order

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140  
papers

5,609  
citations

81900

39  
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85541

71  
g-index

145  
all docs

145  
docs citations

145  
times ranked

5112  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of chiral solitons in LiCuVO4. Communications Physics, 2022, 5, .	5.3	4
2	Single-crystal investigations on the multiferroic material LiFe(WO4)2. Physical Review B, 2021, 103, .	3.2	1
3	Multiple field-induced phases in the frustrated triangular magnet $\text{CsMn}_3\text{Sb}_5$ . Physical Review B, 2021, 104, .	3.3	4
4	Magnetoelectric coupling in a frustrated spinel studied using high-field scanning probe microscopy. Applied Physics Letters, 2020, 116, .	3.2	8
5	Magnetoelectric coupling in the mixed erythrosiderite $[(\text{NH}_4)_{1-x}\text{K}_x]_2[\text{FeCl}_5(\text{H}_2\text{O})]$ . Physical Review B, 2020, 102, .	3.2	21
6	Experimental observation of quantum many-body excitations of symmetry in the Ising chain ferromagnet $\text{CoNb}_2\text{O}_6$ . Physical Review B, 2020, 102, .	10.3	32
7	Generalized Anderson's theorem for superconductors derived from topological insulators. Science Advances, 2020, 6, eaay6502.	3.3	7
8	Observation of particles in an Ising chain antiferromagnet. Physical Review B, 2020, 101, .	7.8	33
9	$\text{Eu}(\text{O}_2\text{C})_2$ : An Eu II Containing Anhydrous Coordination Polymer with High Stability and Negative Thermal Expansion. Chemistry - A European Journal, 2020, 26, 2726-2734.	3.2	40
10	Quantum Critical Dynamics of a Heisenberg-Ising Chain in a Longitudinal Field: Many-Body Strings versus Fractional Excitations. Physical Review Letters, 2019, 123, 067202.	3.3	8
11	Interplay of Electronic and Spin Degrees in Ferromagnetic $\text{SrRuO}_3$ : Anomalous Softening of the Magnon Gap and Stiffness. Physical Review Letters, 2019, 123, 017202.	3.2	40
12	Spin-orbit entangled moments in $\text{Ba}_2$ : A frustrated fcc quantum magnet. Physical Review B, 2019, 100, .	3.3	8
13	Evidence for polarized nanoregions from the domain dynamics in multiferroic LiCuVO4. Scientific Reports, 2019, 9, 4391.		
14	Ferroelectric order versus metallicity in $\text{SrMnO}_3$		

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19	Quantum Criticality of an Ising-like Spin- $\frac{1}{2}$ Antiferromagnetic Chain in a Transverse Magnetic Field. Physical Review Letters, 2018, 120, 207205.	7.8	43
20	Topological quantum phase transition in the Ising-like antiferromagnetic spin chain BaCo <sub>2</sub> V <sub>2</sub> O <sub>8</sub> . Nature Physics, 2018, 14, 716-722.	16.7	66
21	A ferroelectric quantum phase transition inside the superconducting dome of Sr <sub>1-x</sub> CaxTiO <sub>3</sub> . Nature Physics, 2017, 13, 643-648.	16.7	160
22	Magnetic shape-memory effect in SrRuO <sub>3</sub> . Physical Review B, 2017, 96, .	7.8	15
23	Quantum criticality in the spin-1/2 Heisenberg chain system copper pyrazine dinitrate. Science Advances, 2017, 3, eaao3773.	10.3	50
24	Strong magnetoelastic coupling at the transition from harmonic to anharmonic order in NaFe <sub>3</sub> As <sub>2</sub> P. Physical Review B, 2016, 94, .	3.2	11
25	Primary ferrotoroidicity in antiferromagnets. Physical Review B, 2015, 92, .	3.2	39
26	Spin-Orbital Excitation Continuum and Anomalous Electron-Phonon Interaction in the Mott Insulator LaTiO <sub>3</sub> . Physical Review Letters, 2015, 115, 156403.	7.8	19
27	Suppression of Pauling's residual entropy in the dilute spin ice (Dy <sub>1-x</sub> Y <sub>x</sub> ) <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . Physical Review B, 2015, 92, .	3.2	9
28	Heat transport of the spin-ice materials Ho <sub>2</sub> O <sub>7</sub> . Journal of Magnetism and Magnetic Materials, 2015, 383, 83-87.	3.2	15
29	Chain system Cs <sub>2</sub> CoCl <sub>4</sub> . Physical Review B, 2015, 91, .	3.2	9
30	Anisotropy study of multiferroicity in the pyroxene NaFeGe <sub>2</sub> O <sub>6</sub> . New Journal of Physics, 2015, 17, 013045.	2.9	11
31	Substitution effects on the temperature versus magnetic field phase diagrams of the quasi-one-dimensional effective Ising spin system BaCo <sub>2</sub> V <sub>2</sub> O <sub>8</sub> .	3.2	15
32	Magnetolectric properties of A <sub>2</sub> [FeCl <sub>5</sub> ](H <sub>2</sub> O) with A = K, Rb, Cs. Journal of Physics Condensed Matter, 2014, 26, 506002.	1.8	14
33	Hysteresis and Relaxation Effects in the Spin-Ice Compound Dy <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> Studied by Heat Transport. , 2014, ,		2
34	Magnetic phase diagrams, domain switching, and quantum phase transition of the quasi-one-dimensional Ising-like antiferromagnet BaCo <sub>2</sub> V <sub>2</sub> O <sub>8</sub> .	3.2	35
35	Thermodynamic properties of the new multiferroic material (NH <sub>4</sub> ) <sub>2</sub> [FeCl <sub>5</sub> ](H <sub>2</sub> O). New Journal of Physics, 2013, 15, 123001.	2.9	36
36	Spin-Chain System Cs <sub>2</sub> CoCl <sub>4</sub> .	7.8	35

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37	Anisotropic heat transport via monopoles in the spin-ice compound Dy <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . Physical Review B, 2013, 88, 080408.	3.2	17
38	Thermal conductivity and specific heat of the spin-ice compound Dy <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . Physical Review B, 2013, 88, 080408.	3.2	30
39	Spin-state order/disorder and metal-insulator transition in GdBaCo <sub>2</sub> O <sub>5.5</sub> : experimental determination of the underlying electronic structure. New Journal of Physics, 2012, 14, 123025.	2.9	48
40	Evidence for a temperature-induced spin-state transition of Co <sup>3+</sup> in La <sub>2-x</sub> Sr <sub>x</sub> CoO <sub>4</sub> . Physical Review B, 2011, 83, .	3.2	28
41	Resistivity and Hall effect of LiFeAs: Evidence for electron-electron scattering. Physical Review B, 2011, 84, .	3.2	34
42	Antiferromagnetic Heisenberg S=5/2 spin chain compound SrMn <sub>2</sub> V <sub>2</sub> O <sub>8</sub> . Journal of Magnetism and Magnetic Materials, 2011, 323, 2575-2578.	2.3	20
43	Dielectric properties and magnetostriction of the collinear multiferroic spinel CdV <sub>2</sub> O <sub>7</sub> . Physical Review B, 2011, 84, 080408.	3.2	73
44	Thermodynamic properties and resistivity of the ferromagnetic semiconductor EuC <sub>2</sub> . New Journal of Physics, 2011, 13, 113041.	2.9	8
45	Magnetostrictive NaOCl Ordering of the spin-1/2 Heisenberg chain compound BaMn <sub>2</sub> Cl <sub>4</sub> . Physical Review B, 2011, 84, 080408.	7.8	26
46	Ordering of the spin-1/2 Heisenberg chain compound BaMn <sub>2</sub> Cl <sub>4</sub> . Physical Review B, 2011, 84, 080408.	3.2	18
47	Magnetostrictive NaOCl Ordering of the spin-1/2 Heisenberg chain compound BaMn <sub>2</sub> Cl <sub>4</sub> . Physical Review B, 2011, 84, 080408.	3.2	18
48	Thermal expansion of the spin-1/2 Heisenberg-chain compound Cu(C <sub>4</sub> H <sub>4</sub> N <sub>2</sub> ) <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub> . Journal of Physics: Conference Series, 2010, 200, 012169.	0.4	11
49	Crystal structure of Li <sub>2</sub> B <sub>4</sub> O <sub>7</sub> . Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s167-s168.	0.3	0
50	Isotope effect and characteristic features of the phase diagram for cobaltites with spin-state transitions. Journal of Experimental and Theoretical Physics, 2010, 111, 189-193.	0.9	1
51	Phase diagram and isotope effect in cobaltites with spin-state transitions. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 1345-1347.	0.6	0
52	Eight-Coordinate Endohedral Rhenium, Osmium and Iridium Atoms in Rare-Earth Halide Cluster Complexes. European Journal of Inorganic Chemistry, 2010, 2010, 2613-2619.	2.0	17
53	Superconductivity in SnO: A Nonmagnetic Analog to Fe-Based Superconductors?. Physical Review Letters, 2010, 105, 157001.	7.8	38
54	Low-temperature crystal structure, specific heat, and dielectric properties of lithium tetraborate Li <sub>2</sub> B <sub>4</sub> O <sub>7</sub> . Journal of Applied Physics, 2010, 108, .	2.5	29

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55	Dependence of the magnetic ordering temperature on hydrostatic pressure for the ternary intermetallic compounds GdAgMg, GdAuMg, EuAgMg, and EuAuMg. Physical Review B, 2010, 81, .	3.2	2
56	Phase diagram and isotope effect in $(\text{Pr}_{1-y}\text{Eu}_y)\text{CoO}_3$ cobaltites exhibiting spin-state transitions. Physical Review B, 2010, 81, .	3.2	14
57	Metal-insulator transitions in $\text{RE}_{1-x}\text{M}_x\text{TiO}_3$ : evidence for charge order-stabilizing an insulating phase. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s174-s174.	0.3	0
58	Evidence for spinon localization in the heat transport of the spin-ladder compound		

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73	Field-Dependent Thermal Transport in the Haldane Chain Compound NENP. Physical Review Letters, 2008, 100, 137202.	7.8	44
74	Quasi-isentropic material property studies at extreme pressures: from omega to NIF. Journal of Physics: Conference Series, 2008, 112, 042024.	0.4	11
75	New features in the phase diagram of TbMnO3. New Journal of Physics, 2007, 9, 100-100.	2.9	40
76	Thermal expansion of the magnetically ordering intermetallics RTMg (R = Eu, Gd and T = Ag, Au). Journal of Physics Condensed Matter, 2007, 19, 486204.	1.8	2
77	Anomalous thermal expansion and strong damping of the thermal conductivity of $\text{NdMnO}_3$ and $\text{TbMnO}_3$ . Physical Review Letters, 2007, 98, 107201.	7.8	67
78	Pyroxenes: a new class of multiferroics. Journal of Physics Condensed Matter, 2007, 19, 432201.	1.8	96
79	Magnetoelastic coupling in $\text{RTiO}_3$ (R=La,Nd,Sm,Gd,Y) investigated with diffraction techniques and thermal expansion measurements. Physical Review B, 2007, 75, .	3.2	111
80	Nernst effect in $\text{NdBa}_2\{\text{Cu}_{1-y}\text{Ni}_y\}\text{O}_{7-\delta}$ ( $y=0\text{--}0.12$ ). Physical Review B, 2007, 76, .	3.2	6
81	Crystal structure and the Mott-Hubbard gap in $\text{YTiO}_3$ at high pressure. Journal of Physics Condensed Matter, 2007, 19, 406223.	1.8	19
82	Spin thermal conductivity of the Haldane chain compound. Journal of Magnetism and Magnetic Materials, 2007, 310, 1245-1247.	2.3	0
83	Uniaxial pressure dependencies of the phase transitions in. Journal of Magnetism and Magnetic Materials, 2007, 310, 1165-1167.	2.3	10
84	Thermodynamic properties of the field-induced Néel order of. Journal of Magnetism and Magnetic Materials, 2007, 310, 1374-1376.	2.3	1
85	Evidence for multiple phase transitions in. Journal of Magnetism and Magnetic Materials, 2007, 310, e187-e189.	2.3	5
86	Thermodynamics of the coupled spin-dimer system close to a quantum phase transition. Journal of Magnetism and Magnetic Materials, 2007, 316, 291-297.	2.3	21
87	Spin-state-driven metal-insulator transition in $(\text{La,Sr})\text{CoO}_3$ under high-pressure. Physical Review B, 2007, 75, .	3.2	39
88	Thermal Conductivity via Magnetic Excitations in Spin-Chain Materials. Journal of Low Temperature Physics, 2007, 147, 387-403.	1.4	125
89	Magnetoelastic Coupling Across the Metamagnetic Transition in $\text{Ca}_{2-x}\text{Sr}_x\text{RuO}_4$ ( $0.2 \leq x \leq 1$ ). Physical Review B, 2007, 75, .	3.2	39
90		1.4	13

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91	Spin State Transition in $\text{LaCoO}_3$ Studied Using Soft X-ray Absorption Spectroscopy and Magnetic Circular Dichroism. <i>Physical Review Letters</i> , 2006, 97, 176405.	7.8	471
92	Magnetic heat transport in $\text{R}_2\text{CuO}_4$ (R=La, Pr, Nd, Sm, Eu, and Gd). <i>Physical Review B</i> , 2006, 73, .	3.2	24
93	Spin Thermal Conductivity of the Haldane Chain Compound $\text{Y}_2\text{BaNiO}_5$ . <i>Physical Review Letters</i> , 2006, 97, 115901.	7.8	29
94	Electronic structure of $\text{RAuMg}$ and $\text{RAgMg}$ (R=Eu, Gd, Yb). <i>Physical Review B</i> , 2006, 74, .	3.2	14
95	A new multiferroic material: $\text{MnWO}_4$ . <i>Journal of Physics Condensed Matter</i> , 2006, 18, L471-L475.	1.8	159
96	Reply to the comment "Nature of low-temperature..." <i>JETP Letters</i> , 2006, 83, 222-222.	1.4	1
97	Thermal conductivity of , with , Pr, and Gd. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 1064-1065.	2.7	2
98	Uniaxial pressure dependencies of the phase boundary of $\text{TlCuCl}_3$ . <i>Physica B: Condensed Matter</i> , 2006, 378-380, 1043-1044.	2.7	3
99	Thermodynamic properties of in magnetic fields. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 497-498.	2.7	4
100	Raman Scattering in the Mott Insulators $\text{LaTiO}_3$ and $\text{YTiO}_3$ : Evidence for Orbital Excitations. <i>Physical Review Letters</i> , 2006, 97, 157401.	7.8	51
101	Hysteresis effects in the phase diagram of multiferroic $\text{GdMnO}_3$ . <i>Physical Review B</i> , 2006, 73, .	3.2	44
102	Nature of low-temperature phase transitions in $\text{CaMn}_7\text{O}_{12}$ . <i>JETP Letters</i> , 2005, 82, 444-446.	1.4	17
103	Determination of the Orbital Moment and Crystal-Field Splitting in $\text{LaTiO}_3$ . <i>Physical Review Letters</i> , 2005, 94, 056401.	7.8	64
104	Magnetoelastic Coupling in the Spin-Dimer System $\text{TlCuCl}_3$ . <i>Physical Review Letters</i> , 2005, 95, 017205.	7.8	24
105	Spin-state transition and metal-insulator transition in $\text{La}_{1-x}\text{Eu}_x\text{CoO}_3$ . <i>Physical Review B</i> , 2005, 71, .	3.2	137
106	Zero-Field Incommensurate Spin-Peierls Phase with Interchain Frustration in $\text{TiOCl}$ . <i>Physical Review Letters</i> , 2005, 95, 097203.	7.8	66
107	Structural Aspects of Metamagnetism in $\text{Ca}_{2-x}\text{Sr}_x\text{RuO}_4$ : Evidence for Field Tuning of Orbital Occupation. <i>Physical Review Letters</i> , 2005, 95, 267403.	7.8	14
108	Optical study of orbital excitations in transition-metal oxides. <i>New Journal of Physics</i> , 2005, 7, 144-144.	2.9	54

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109	Magnetoresistance, specific heat and magnetocaloric effect of equiatomic rare-earth transition-metal magnesium compounds. <i>Journal of Physics Condensed Matter</i> , 2005, 17, 7731-7741.	1.8	9
110	Thermal conductivity, thermopower, and figure of merit of $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ . <i>Physical Review B</i> , 2005, 72, .	3.2	103
111	The phase diagram of $\text{Ca}_{2-x}\text{Sr}_x\text{RuO}_4$ : crystal structure and physical properties. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2005, 61, c13-c13.	0.3	0
112	Different Look at the Spin State of $\text{Co}^{3+}$ Ions in a $\text{CoO}_5$ Pyramidal Coordination. <i>Physical Review Letters</i> , 2004, 92, 207402.	7.8	170
113	Pressure-induced insulating state in $(\text{La},\text{Sr})\text{CoO}_3$ . <i>Physical Review B</i> , 2004, 69, .	3.2	94
114	Structure, magnetization, and resistivity of $\text{La}_{1-x}\text{M}_x\text{CoO}_3$ ( $\text{M}=\text{Ca},\text{Sr}$ , and $\text{Ba}$ ). <i>Physical Review B</i> , 2004, 69, .	3.2	213
115	The phase-diagram of $\text{Ca}_{2-x}\text{Sr}_x\text{RuO}_4$ : Relation between crystal distortions and physical properties. <i>Materials Research Society Symposia Proceedings</i> , 2004, 840, Q4.1.1.	0.1	0
116	Sequence of phase transitions in a quasi-one-dimensional $\hat{I}^2\text{-NaO}_{.33}\text{V}_2\text{O}_5$ compound with variable valence. <i>JETP Letters</i> , 2004, 79, 542-544.	1.4	1
117	Evidence for orbital ordering in $\text{LaCoO}_3$ . <i>Physical Review B</i> , 2003, 67, .	3.2	222
118	Thermal properties of $\text{NaV}_2\text{O}_5$ . <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 258-259, 398-400.	2.3	0
119	Crystal and magnetic structure of $\text{LaTiO}_3$ : Evidence for nondegenerate $t_2$ orbitals. <i>Physical Review B</i> , 2003, 68, .	3.2	189
120	Evidence for a large magnetic heat current in insulating layered cuprates. <i>Physical Review B</i> , 2003, 67, .	3.2	40
121	Evidence for a low-spin to intermediate-spin state transition in $\text{LaCoO}_3$ . <i>Physical Review B</i> , 2002, 66, .	3.2	313
122	Heat transport in $\text{SrCu}_2(\text{BO}_3)_2$ and $\text{CuGeO}_3$ . <i>Physica B: Condensed Matter</i> , 2002, 312-313, 597-599.	2.7	14
123	Evidence for spin-charge separation in quasi-one-dimensional organic conductors. <i>Nature</i> , 2002, 418, 614-617.	27.8	100
124	Experimental quest for orbital waves. <i>Nature</i> , 2002, 418, 39-40.	27.8	59
125	Strong Damping of Phononic Heat Current by Magnetic Excitations in $\text{SrCu}_2(\text{BO}_3)_2$ . <i>Physical Review Letters</i> , 2001, 87, 047202.	7.8	64
126	Magnetic frustration and spin-Peierls transition in $\text{CuGeO}_3$ . , 1999, , 301-310.		1



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127	Spin-Peierls order parameter and antiferromagnetism in the dimerized and incommensurate phases of Zn-dopedCuGeO <sub>3</sub> . Physical Review B, 1999, 59, 6886-6907.	3.2	12
128	Thermal Expansion of La <sub>1.85</sub> Sr <sub>0.15</sub> CuO <sub>4</sub> in Magnetic Fields up to 14 Tesla. Journal of Low Temperature Physics, 1999, 117, 1453-1457.	1.4	0
129	Magnetic ordering in single crystals of. Journal of Physics Condensed Matter, 1998, 10, L33-L39.	1.8	29
130	Incommensurate Phase ofCuGeO <sub>3</sub> : From Solitons to Sinusoidal Modulation. Physical Review Letters, 1998, 81, 148-151.	7.8	42
131	Reexamination of the microscopic couplings of the quasi-one-dimensional antiferromagnetCuGeO <sub>3</sub> . Physical Review B, 1998, 57, 1102-1107.	3.2	86
132	Revival of the spin-Peierls transition inCu <sub>1-x</sub> Zn <sub>x</sub> GeO <sub>3</sub> under pressure. Physical Review B, 1998, 57, 7749-7754.	3.2	10
133	Specific heat, thermal expansion, and pressure dependencies of the transition temperatures of dopedCuGeO <sub>3</sub> . Physical Review B, 1997, 56, R501-R504.	3.2	12
134	Temperature and magnetic-field dependence of the lattice constant in the spin-Peierls cuprateCuGeO <sub>3</sub> studied by capacitance dilatometry in fields up to 16 T. Physical Review B, 1997, 55, 5914-5928.	3.2	26
135	Layer selective magnetometry in ultrathin magnetic structures by polarised neutron reflection. Journal of Magnetism and Magnetic Materials, 1997, 170, 46-51.	2.3	1
136	Magnetostriction of the spin-Peierls cuprate CuGeO <sub>3</sub> . Zeitschrift für Physik B-Condensed Matter, 1996, 102, 71-82.	1.1	4
137	Magnetic Frustration Induced Formation of the Spin-Peierls Phase in CuGeO <sub>3</sub> : Experimental Evidence. Physical Review Letters, 1996, 77, 1624-1627.	7.8	35
138	Thermodynamic properties of the incommensurate phase of CuGeO <sub>3</sub> . Physical Review B, 1996, 54, R15610-R15613.	3.2	10
139	Thermal expansion of a La <sub>1.87</sub> Sr <sub>0.13</sub> CuO <sub>4</sub> single crystal at T <sub>c</sub> in high magnetic fields. Physica C: Superconductivity and Its Applications, 1994, 235-240, 1931-1932.	1.2	1
140	Phase Diagram of Spin States and Magnetic Interactions in Isotope Substituted (Pr,Eu) <sub>0.7</sub> Ca <sub>0.3</sub> CoO <sub>3</sub> . Solid State Phenomena, 0, 168-169, 465-468.	0.3	0