

Dharmalingam Prabhakaran

List of Publications by Year in descending order

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157
papers

7,336
citations

81900

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83
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159
all docs

159
docs citations

159
times ranked

8673
citing authors

#	ARTICLE	IF	CITATIONS
1	A stable three-dimensional topological Dirac semimetal Cd ₃ As ₂ . Nature Materials, 2014, 13, 677-681.	27.5	1,242
2	Weyl semimetal phase in the non-centrosymmetric compound TaAs. Nature Physics, 2015, 11, 728-732.	16.7	796
3	Quantum Criticality in an Ising Chain: Experimental Evidence for Emergent E ₈ Symmetry. Science, 2010, 327, 177-180.	12.6	528
4	Magnetic Coulomb Phase in the Spin Ice Ho ₂ Ti ₂ O ₇ . Science, 2009, 326, 415-417.	12.6	485
5	Linear Magnetoresistance Caused by Mobility Fluctuations in n-Doped Cd ₃ As ₂ . Physical Review Letters, 2015, 114, 117201.	7.8	306
6	Evolution of the Fermi surface of Weyl semimetals in the transition metal pnictide family. Nature Materials, 2016, 15, 27-31.	27.5	245
7	Photocatalytic water splitting by N-TiO ₂ on MgO (111) with exceptional quantum efficiencies at elevated temperatures. Nature Communications, 2019, 10, 4421.	12.8	151
8	Structural and Optical Properties of Cs ₂ AgBiBr ₆ Double Perovskite. ACS Energy Letters, 2019, 4, 299-305.	17.4	146
9	Creation and measurement of long-lived magnetic monopole currents in spin ice. Nature Physics, 2011, 7, 252-258.	16.7	126
10	Experimental study of the interfacial cobalt oxide in Co ₃ Sn ₂ S ₈ . Physical Review B, 2009, 80, .	3.2	102
11	Polarizing an antiferromagnet by optical engineering of the crystal field. Nature Physics, 2020, 16, 937-941.	16.7	99
12	Vacancy defects and monopole dynamics in oxygen-deficient pyrochlores. Nature Materials, 2014, 13, 488-493.	27.5	81
13	All-In/Out Magnetic Order and Propagating Spin Waves in Sm ₂ O ₇ . Physical Review Letters, 2017, 119, 057203.	3.2	73
14	Quasiparticle Breakdown and Spin Hamiltonian of the Frustrated Quantum Pyrochlore Yb ₂ O ₇ . Physical Review Letters, 2017, 119, 057203.	3.2	71
15	Antiferromagnetic order and domains in Sr ₃ Co ₂ O ₇ . Physical Review Letters, 2017, 119, 057203.	3.2	71
16	High-resolution photoemission spectroscopy of La ₃ Co ₂ O ₇ . Physical Review B, 2010, 82, .	3.2	67
17	Critical behavior in single-crystalline La ₃ Co ₂ O ₇ . Physical Review B, 2010, 82, .	3.2	67
18	The full magnon spectrum of yttrium iron garnet. Npj Quantum Materials, 2017, 2, .	5.2	66

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19	Anisotropic Local Modification of Crystal Field Levels in Pr-Based Pyrochlores: A Muon-Induced Effect Modeled Using Density Functional Theory. <i>Physical Review Letters</i> , 2015, 114, 017602.	7.8	61
20	Brownian motion and quantum dynamics of magnetic monopoles in spin ice. <i>Nature Communications</i> , 2013, 4, 1535.	12.8	60
21	Resonant soft x-ray scattering investigation of orbital and magnetic ordering in La _{0.5} Sr _{1.5} MnO ₄ . <i>Physical Review B</i> , 2005, 71, .	3.2	58
22	Witnessing the formation and relaxation of dressed quasi-particles in a strongly correlated electron system. <i>Nature Communications</i> , 2014, 5, 5112.	12.8	58
23	High-temperature electromagnons in the magnetically induced multiferroic cupric oxide driven by intersublattice exchange. <i>Nature Communications</i> , 2014, 5, 3787.	12.8	57
24	Hall effect in charged conducting ferroelectric domain walls. <i>Nature Communications</i> , 2016, 7, 13764.	12.8	57
25	Critical behavior of the paramagnetic to antiferromagnetic transition in orthorhombic and hexagonal phases of $R\text{MnO}$		

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37	Growth of large La ₂ Fe ₁₄ NiO ₄ + δ single crystals by the floating-zone technique. Journal of Crystal Growth, 2002, 237-239, 815-819.	1.5	40
38	Restoration of the third law in spin ice thin films. Nature Communications, 2014, 5, 3439.	12.8	40
39	Single-gap superconductivity in $B_{i_2}Pd_2$. Physical Review B, 2016, 93, .	3.2	40
40	Electric field control of chiral magnetic domains in the high-temperature multiferroic CuO. Physical Review B, 2012, 85, .	3.2	38
41	Order-by-disorder from bond-dependent exchange and intensity signature of nodal quasiparticles in a honeycomb cobaltate. Nature Communications, 2021, 12, 3936.	12.8	38
42	2D photocatalysts with tuneable supports for enhanced photocatalytic water splitting. Materials Today, 2020, 41, 34-43.	14.2	36
43	Magnetic and electronic structure of Dirac semimetal candidate $EuMnSb_2$. Physical Review B, 2019, 100, .	3.2	35
44	Preparation of large single crystals of ANb ₂ O ₆ (A=Ni, Co, Fe, Mn) by the floating-zone method. Journal of Crystal Growth, 2003, 250, 72-76.	1.5	33
45	Single crystal growth of Zn-doped CuO by the floating-zone method. Journal of Crystal Growth, 2003, 250, 77-82.	1.5	33
46	Terahertz spectroscopy of anisotropic materials using beams with rotatable polarization. Scientific Reports, 2017, 7, 12337.	3.3	33
47	Experimental signature of the attractive Coulomb force between positive and negative magnetic monopoles in spin ice. Nature Physics, 2016, 12, 661-666.	16.7	32
48	Fe on molecular-layer MoS ₂ as inorganic Fe-S ₂ -Mo motifs for light-driven nitrogen fixation to ammonia at elevated temperatures. Chem Catalysis, 2021, 1, 162-182.	6.1	32
49	Charge order, enhanced orbital moment, and absence of magnetic frustration in layered multiferroic $LuFe_2O_7$. Physical Review B, 2009, 80, .	3.2	31
50	Low-moment magnetism in the double perovskites M_2OsO_6 . Physical Review B, 2009, 80, .	3.2	31
51	Mechanism of spin crossover in LaCoO ₃ resolved by shape magnetostriction in pulsed magnetic fields. Scientific Reports, 2014, 4, 7003.	3.3	31
52	Doping Dependence of Collective Spin and Orbital Excitations in the Spin-1 Quantum Antiferromagnet La_2CuO_4 . Physical Review Letters, 2017, 118, 156402.	7.8	31
53	Magnetism in Geometrically Frustrated $YMnO_3$ under Hydrostatic Pressure Studied with Muon Spin Relaxation. Physical Review Letters, 2007, 98, 197203.	7.8	28
54	Magnetic spectrum of the two-dimensional antiferromagnet La_2CuO_4 by inelastic neutron scattering. Physical Review B, 2010, 82, .	3.2	28

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73	Resonant x-ray scattering study of diffuse magnetic scattering from the topological semimetals <math display="block">\text{EuCd}_2\text{As}_2 <math display="block">\text{EuCd}_2\text{As}_2 Physical Review B, 2020, 102, .	3.2	20
74	Local matrix-cluster interactions in a phase separated perovskite. Physical Review B, 2006, 74, .	3.2	19
75	Terahertz field control of in-plane orbital order in La _{0.5} Sr _{1.5} MnO ₄ . Nature Communications, 2015, 6, 8175.	12.8	19
76	Crystallographic, Optical, and Electronic Properties of the Cs ₂ AgBi _{1-x} NxBr ₆ Double Perovskite: Understanding the Fundamental Photovoltaic Efficiency Challenges. ACS Energy Letters, 2021, 6, 1073-1081.	17.4	19
77	Incommensurate charge stripe ordering in La _{2-x} Sr _x NiO ₄ for x=(0.33,0.30,0.275). Physical Review B, 2004, 70, .	3.2	17
78	Bi-layer splitting and wave functions symmetry in <math display="block">\text{Sr}_3\text{Ca}_2\text{As}_2 Physical Review B, 2014, 89, .	3.2	17
79	Tuning order-by-disorder multiferroicity in CuO by doping. Physical Review B, 2014, 90, .	3.2	17
80	Disentangling orbital and spin exchange interactions for <math display="block">\text{Co}_2\text{O}_7 on a rocksalt lattice. Physical Review B, 2018, 98, .	3.2	17
81	Quantum oscillations probe the Fermi surface topology of the nodal-line semimetal CaAgAs. Physical Review Research, 2020, 2, .	3.6	17
82	Direct evidence for charge stripes in a layered cobalt oxide. Nature Communications, 2016, 7, 11632. High-temperature onset of field-induced transitions in the spin-ice compound Dy	12.8	16
83	<math display="block">\text{Ti}_2\text{O}_7 <math display="block">\text{O}_7 Unusual field dependence of spin fluctuations on different timescales in Tb ₂ Ti ₂ O ₇ . Physical Review B, 2012, 86, . Stripe disorder and dynamics in the hole-doped antiferromagnetic insulator La	3.2	15
84	<math display="block">\text{Sr}_5\text{Co}_3\text{O}_{13} <math display="block">\text{CoO} Fragmented monopole crystal, dimer entropy, and Coulomb interactions in <math display="block">\text{Dy}_2\text{O}_7 Physical Review Research, 2020, 2, .	3.2	15
85	Phase separation, memory effects, and magnetization steps in single crystalline La _{1.1} Sr _{1.9} Mn ₂ O ₇ . Physical Review B, 2006, 74, .	3.2	14
86	Single-crystal growth of La _{2-x} Sr _{1+2x} Mn ₂ O ₇ under pressure. Journal of Materials Science: Materials in Electronics, 2003, 14, 587-589.	2.2	13
89	Resonant dynamics in the chain compound Rb <math display="block">\text{S}_1\text{O}_7		

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91	Laser-induced charge-disproportionated metallic state in LaCoO_3 . Physical Review B, 2014, 90, .	3.2	13
92	Phase transitions in few-monolayer spin ice films. Nature Communications, 2019, 10, 1219.	12.8	13
93	Magnetic monopole density and antiferromagnetic domain control in spin-ice iridates. Nature Communications, 2022, 13, 444.	12.8	13
94	Dynamic behavior of magnetic avalanches in the spin-ice compound $\text{Dy}_2\text{Ti}_2\text{O}_7$. Physical Review B, 2014, 90, .	3.2	12
95	Crystal growth of pyrochlore rare-earth stannates. Journal of Crystal Growth, 2017, 468, 335-339.	1.5	12
96	Thermal Diffusivity of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ ($x < 0.3$). International Journal of Thermophysics, 2004, 25, 1269-1279.	2.1	11
97	Effect of uniaxial pressure on charge transport in the layered manganite $\text{La}_{1.25}\text{Sr}_{1.75}\text{Mn}_2\text{O}_7$. Physical Review B, 2006, 73, .	3.2	11
98	Thermally induced rotation of Mn^{3d} orbital stripes in Mn_3Cd		

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127	Classical Spin Liquid or Extended Critical Range in h $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle h \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle Y\text{MnO} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ Physical Review Letters, 2021, 126, 107203.	7.8	5
128	Charge stripe glasses in $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ for $0.20 < x < 0.25$. European Physical Journal B, 2005, 46, 27-32.	1.5	4
129	Inverse order-disorder transition of charge stripes. Physical Review B, 2015, 92, .	3.2	4
130	Crystal growth of the triangular-lattice antiferromagnet $\text{Ba}_3\text{CoSb}_2\text{O}_9$. Journal of Crystal Growth, 2017, 468, 345-348.	1.5	4
131	Correlated oxygen displacements and phonon mode changes in LaCoO_3 single crystal. Physica B: Condensed Matter, 2018, 536, 597-599.	2.7	4
132	Transverse and longitudinal spin-fluctuations in INVAR $\text{Fe}_{0.65}\text{Ni}_{0.35}$. Journal of Physics Condensed Matter, 2019, 31, 025802.	1.8	4
133	Critical behavior dependence on Sr concentration in $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$. Journal of Applied Physics, 2004, 95, 7366-7368.	2.5	3
134	Hyperfine Parameters for Muonium in Copper (I), Silver (I) and Cadmium Oxides. Hyperfine Interactions, 2004, 158, 313-316.	0.5	3
135	Development of the magnetic excitations of charge-stripe ordered $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ on doping towards checkerboard charge order. Journal of the Korean Physical Society, 2013, 62, 1453-1457.	0.7	3
136	Divacancy superstructures in thermoelectric calcium-doped sodium cobaltate. Physical Review B, 2014, 90, .	3.2	3
137	Anomalous behavior of displacement correlation function and strain in lanthanum cobalt oxide analyzed both from X-ray powder diffraction and EXAFS data. Powder Diffraction, 2017, 32, S151-S154.	0.2	3
138	Coupling between Spin and Charge Order Driven by Magnetic Field in Triangular Ising System LuFe_2O_4 . Crystals, 2018, 8, 88.	2.2	3
139	Origin of the large ferroelectric polarization enhancement under high pressure for multiferroic $\text{DyMn}_3\text{O}_{12}$ $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Dy} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{Mn} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ $\langle \text{mml:math variant="normal"} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ studied by polarized and unpolarized neutron diffraction. Physical Review B, 2020, 102, .	2.2	3
140	Dynamical screening in SrVO_3 $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{SrVO} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$: Inelastic x-ray scattering experiments and <i>ab initio</i> calculations. Physical Review B, 2021, 103, .	2.2	3
141	Inhomogeneous spin excitations in weakly coupled spin-1/2 chains. Physical Review Research, 2022, 4, .	3.6	3
142	Real Space Imaging of Spin Stripe Domain Fluctuations in a Complex Oxide. Physical Review Letters, 2021, 127, 275301.	7.8	3
143	Topological metamagnetism: Thermodynamics and dynamics of the transition in spin ice under uniaxial compression. Physical Review B, 2022, 105, .	3.2	3
144	Strongly momentum-dependent screening dynamics in LaSrMnO_3 $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 0.5 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle \text{Sr} \langle \text{mml:math} \rangle$ $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 1.5 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle \text{MnO} \langle \text{mml:math} \rangle$ $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$	3.2	2

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145	Spin-charge-lattice coupling in quasi-one-dimensional Ising spin chain CoNb ₂ O ₆ . Journal of Physics Condensed Matter, 2019, 31, 195802.	1.8	2
146	Growth and magnetic characterization of large R ₂ NiO ₄ + δ (R=Pr, Nd) single crystals. Journal of Materials Science: Materials in Electronics, 2003, 14, 583-586.	2.2	1
147	Direct Observation of Orbital Ordering in Layered Manganites. Journal of Superconductivity and Novel Magnetism, 2005, 18, 687-691.	0.5	1
148	Co <i>K</i> -edge magnetic circular dichroism across the spin state transition in LaCoO ₃ single crystal. Journal of Physics: Conference Series, 2016, 712, 012111.	0.4	1
149	Tracking a hysteretic and disorder-broadened phase transition via the electromagnon response in improper ferroelectrics. Journal Physics D: Applied Physics, 2018, 51, 084002.	2.8	1
150	Investigation of a Spin Transition in a LaCoO ₃ Single Crystal by the Method of X-Ray Magnetic Circular Dichroism at the Cobalt K- and L _{2,3} -Edges. Physics of the Solid State, 2018, 60, 288-291.	0.6	1
151	Wave Vector Difference of Magnetic Bragg Reflections and Low Energy Magnetic Excitations in Charge-stripe Ordered La ₂ NiO ₄ . Scientific Reports, 2019, 9, 14468.	3.3	1
152	Experimental measurement of the isolated magnetic susceptibility. Physical Review B, 2021, 104, .	3.2	1
153	Model for coupled \hat{F} magnetic spectra: A neutron scattering study of the Yb-Fe hybridization in \hat{F} Physical Review B, 2022, 105.	3.2	1
154	Terahertz-frequency conductivity of charge stripes in the antiferromagnet La ^{5/3} Sr ^{1/3} NiO ₄ . , 2007, , .		0
155	Persistent supercurrents in ring-shaped Bi ₂ Sr ₂ CaCu ₂ O _x single crystal. Journal of Applied Physics, 2010, 107, 083909.	2.5	0
156	Terahertz frequency electromagnon and magnon modes in multiferroic cupric oxide. , 2013, , .		0
157	Low-temperature thermal transport measurements of oxygen-annealed YbTi_2O_7 Physical Review B, 2020, 102, .	3.2	0