

Mark P M Dean

List of Publications by Year in descending order

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85
papers

2,729
citations

159585

30
h-index

189892

50
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85
all docs

85
docs citations

85
times ranked

3474
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonthermal breaking of magnetic order via photogenerated spin defects in the spin-orbit coupled insulator $\text{Sr}_3\text{Ir}_2\text{O}_7$. <i>Physical Review B</i> , 2022, 105, .	12.8	10
2	Antiferromagnetic excitonic insulator state in $\text{Sr}_3\text{Ir}_2\text{O}_7$. <i>Nature Communications</i> , 2022, 13, 913.	12.8	10
3	Role of Oxygen States in the Low Valence Nickelate $\text{LaO}_{1-x}\text{F}_x\text{NiO}_2$. <i>Physical Review X</i> , 2022, 12, .	10.3	2
4	Real-space observation of fluctuating antiferromagnetic domains. <i>Science Advances</i> , 2022, 8, .	10.3	2
5	Site-specific electronic and magnetic excitations of the skyrmion material Cu_2OSeO_3 . <i>Communications Physics</i> , 2022, 5, .	5.3	4
6	Bulk charge density wave and electron-phonon coupling in superconducting copper oxychlorides. <i>Physical Review Research</i> , 2022, 4, .	3.6	0
7	Strong Superexchange in a Nickelate Revealed by Resonant Inelastic X-Ray Scattering. <i>Physical Review Letters</i> , 2021, 126, 087001.	7.8	9
8	Charge density waves in cuprate superconductors beyond the critical doping. <i>Npj Quantum Materials</i> , 2021, 6, .	5.2	55
9	Charge Condensation and Lattice Coupling Drives Stripe Formation in Nickelates. <i>Physical Review Letters</i> , 2021, 126, 177601.	7.8	9
10	Laser-induced transient magnons in $\text{Sr}_3\text{Ir}_2\text{O}_7$ throughout the Brillouin zone. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	19
11	Observation of a chiral wave function in the twofold-degenerate quadruple Weyl system BaPtGe . <i>Physical Review B</i> , 2021, 103, .	3.2	10
12	Giant phonon anomalies in the proximate Kitaev quantum spin liquid Ir_2RuCl_6 . <i>Nature Communications</i> , 2021, 12, 3513.	12.8	20
13	Superconductivity from Charge Order in Cuprates. <i>Journal of the Physical Society of Japan</i> , 2021, 90, 111002.	1.6	9
14	Single-Laser-Pulse-Driven Thermal Limit of the Quasi-Two-Dimensional Magnetic Ordering in Sr_2IrO_7 . <i>Physical Review X</i> , 2021, 11, .	8.9	6
15	Photoinduced anisotropic lattice dynamic response and domain formation in thermoelectric SnSe . <i>Npj Quantum Materials</i> , 2021, 6, .	5.2	6
16	Soft X-Ray Spectroscopy of Low-Valence Nickelates. <i>Frontiers in Physics</i> , 2021, 9, .	2.1	12
17	Probing Electron-Phonon Interactions Away from the Fermi Level with Resonant Inelastic X-Ray Scattering. <i>Physical Review X</i> , 2021, 11, .	8.9	6
18	Real Space Imaging of Spin Stripe Domain Fluctuations in a Complex Oxide. <i>Physical Review Letters</i> , 2021, 127, 275301.	7.8	3

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19	Angle-Resolved Transport Measurements Reveal Electronic Nematicity in Cuprate Superconductors. Journal of Superconductivity and Novel Magnetism, 2020, 33, 87-92.	1.8	2
20	Domain Texture of the Orthorhombic Phase of $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$. Journal of Superconductivity and Novel Magnetism, 2020, 33, 99-106.	1.8	10
21	Scaling behavior of low-temperature orthorhombic domains in the prototypical high-temperature superconductor $\text{La}_{1.875}\text{Ba}_{0.125}\text{CuO}_4$. Physical Review B, 2020, 101.	7.8	33
22	Doping evolution of the charge excitations and electron correlations in electron-doped superconducting $\text{La}_{2-x}\text{Ce}_x\text{CuO}_4$. Npj Quantum Materials, 2020, 5, .	5.2	31
23	Strain-Modulated Slater-Mott Crossover of Pseudospin-Half Square-Lattice in $(\text{SrIrO}_3)_1(\text{SrTiO}_3)_1$ Superlattices. Physical Review Letters, 2020, 124, 177601.	7.8	10
24	Strongly Correlated Charge Density Wave in La_2CuO_7 . Physical Review Letters, 2020, 124, 207005.	7.8	33
25	Depth-Resolved Modulation of Metal-Oxygen Hybridization and Orbital Polarization across Correlated Oxide Interfaces. Advanced Materials, 2019, 31, e1902364.	21.0	9
26	Momentum-resolved lattice dynamics of parent and electron-doped Sr_2CuO_7 . Physical Review B, 2019, 100, .	2.2	17
27	Formation of Incommensurate Charge Density Waves in Cuprates. Physical Review X, 2019, 9, .	8.9	34
28	Strong Orbital Polarization in a Cobaltate-Titanate Oxide Heterostructure. Physical Review Letters, 2019, 123, 117201.	7.8	14
29	Ultrafast dynamics of spin and orbital correlations in quantum materials: an energy- and momentum-resolved perspective. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20170480.	3.4	20
30	EDRIXS: An open source toolkit for simulating spectra of resonant inelastic x-ray scattering. Computer Physics Communications, 2019, 243, 151-165.	7.5	21
31	Epitaxial stabilization of $\text{Sr}_3\text{Ir}_2\text{O}_7$ thin films. Applied Physics Letters, 2019, 114, .	3.3	2
32	Magnetism in iridate heterostructures leveraged by structural distortions. Scientific Reports, 2019, 9, 4263.	3.3	26
33	Direct Detection of Dimer Orbitals in Ba_5O_{11} . Physical Review Letters, 2019, 122, 106401.	7.8	15
34	Charge density wave memory in a cuprate superconductor. Nature Communications, 2019, 10, 1435.	12.8	30
35	Anomalous magnetoresistance due to longitudinal spin fluctuations in a Jeff $\frac{1}{2}$ Mott semiconductor. Nature Communications, 2019, 10, 5301.	12.8	12
36	Phononic Helical Nodal Lines with PT Protection in MoB_2 . Physical Review Letters, 2019, 123, 245302.	7.8	68

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37	Novel spin-orbit coupling driven emergent states in iridate-based heterostructures. Journal of Physics and Chemistry of Solids, 2019, 128, 39-53.	4.0	21
38	Control of dopant crystallinity in electrochemically treated cuprate thin films. Physical Review Materials, 2019, 3, .	2.4	5
39	Epitaxial growth and antiferromagnetism of Sn-substituted perovskite iridate SrIr _{0.8} Sn _{0.2} O ₃ . Physical Review Materials, 2019, 3, .	2.4	1
40	Incommensurate Phonon Anomaly and the Nature of Charge Density Waves in Cuprates. Physical Review X, 2018, 8, .	8.9	41
41	Imaging antiferromagnetic antiphase domain boundaries using magnetic Bragg diffraction phase contrast. Nature Communications, 2018, 9, 5013.	12.8	13
42	Decoupling Carrier Concentration and Electron-Phonon Coupling in Oxide Heterostructures Observed with Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2018, 121, 236802.	7.8	22
43	Inverted orbital polarization in strained correlated oxide films. Physical Review B, 2018, 98, .	3.2	7
44	Emergent c -axis magnetic helix in manganite-nickelate superlattices. Physical Review B, 2018, 98, .	3.2	9
45	Scaling decoupled from the electronic coherence in iron-based superconductors. Physical Review B, 2018, 98, .	3.2	16
46	Observation of Double Weyl Phonons in Parity-Breaking FeSi. Physical Review Letters, 2018, 121, 035302.	7.8	137
47	Giant magnetic response of a two-dimensional antiferromagnet. Nature Physics, 2018, 14, 806-810.	16.7	44
48	Giant spin gap and magnon localization in the disordered Heisenberg antiferromagnet Sr ₂ Ir _{1-x} Ru _x O ₄ . Physical Review B, 2017, 95, .	3.2	8
49	Doping dependence of the magnetic excitations in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_2$. Physical Review B, 2017, 95, .	3.2	33
50	On the possibility to detect multipolar order in URu ₂ Si ₂ by the electric quadrupolar transition of resonant elastic x-ray scattering. Physical Review B, 2017, 96, .	3.2	10
51	Resonant inelastic x-ray scattering study of spin-wave excitations in the cuprate parent compound $\text{Ca}_{1-x}\text{Bi}_x\text{CuO}_2$. Physical Review B, 2017, 95, .	3.2	7
52	High-temperature charge density wave correlations in $\text{La}_{1.875}\text{Ba}_{0.125}\text{CuO}_4$ without spin-charge locking. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12430-12435.	7.1	75
53	Two-Dimensional Antiferromagnetic Insulator Unraveled from Interlayer Exchange Coupling in Artificial Perovskite Iridate Superlattices. Physical Review Letters, 2017, 119, 027204.	7.8	55
54	Static charge-density-wave order in the superconducting state of $\text{La}_{1-x}\text{Ca}_x\text{MnO}_2$. Physical Review B, 2017, 95, .	3.2	16

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55	Doping Dependence of Collective Spin and Orbital Excitations in the Spin-1 Quantum Antiferromagnet $\text{La}_{1-x}\text{Sr}_x\text{CuO}_4$. Physical Review Letters, 2017, 118, 156402.	7.8	31
56	Oscillatory Noncollinear Magnetism Induced by Interfacial Charge Transfer in Superlattices Composed of Metallic Oxides. Physical Review X, 2016, 6, .	8.9	30
57	Ultrafast energy- and momentum-resolved dynamics of magnetic correlations in the photo-doped Mott insulator Sr_2IrO_4 . Nature Materials, 2016, 15, 601-605.	27.5	120
58	Orbital Engineering in Nickelate Heterostructures Driven by Anisotropic Oxygen Hybridization rather than Orbital Energy Levels. Physical Review Letters, 2016, 117, 147401.	7.8	27
59	Remarkable Stability of Charge Density Wave Order in $\text{La}_{1-x}\text{Sr}_x\text{CuO}_4$. Physical Review Letters, 2016, 117, 167001.	7.8	33
60	Anisotropic softening of magnetic excitations in lightly electron-doped Sr_2IrO_4 . Physical Review B, 2016, 93, .	3.2	26
61	Probing single magnon excitations in Sr_2IrO_4 using O <i>K</i> -edge resonant inelastic x-ray scattering. Journal of Physics Condensed Matter, 2015, 27, 202202.	1.8	11
62	Superconductivity in graphite intercalation compounds. Physica C: Superconductivity and Its Applications, 2015, 514, 50-58.	1.2	40
63	First-Order Melting of a Weak Spin-Orbit Mott Insulator into a Correlated Metal. Physical Review Letters, 2015, 114, 257203.	7.8	40
64	Insights into the high temperature superconducting cuprates from resonant inelastic X-ray scattering. Journal of Magnetism and Magnetic Materials, 2015, 376, 3-13.	2.3	62
65	Itinerant effects and enhanced magnetic interactions in Bi-based multilayer cuprates. Physical Review B, 2014, 90, .	3.2	29
66	Ferroelectric quantum criticality. Nature Physics, 2014, 10, 367-372.	16.7	230
67	Rotated stripe order and its competition with superconductivity in $\text{La}_{1.88}\text{Sr}_{0.12}\text{CuO}_4$. Physical Review B, 2014, 90, .	3.2	78
68	Persistence of magnetic excitations in La_2CuO_4 from the undoped insulator to the heavily overdoped non-superconducting metal. Nature Materials, 2013, 12, 1019-1023.	27.5	218
69	Ferromagnetic Exchange Anisotropy from Antiferromagnetic Superexchange in the Mixed $\text{Cu}_{1-x}\text{Ni}_x\text{O}$ Compound. High-Energy Magnetic Excitations in the Cuprate Superconductor $\text{Cu}_{1-x}\text{Ni}_x\text{O}$. Physical Review Letters, 2013, 110, 147001.	7.8	41
70	High-Energy Magnetic Excitations in the Cuprate Superconductor $\text{Sr}_{1-x}\text{Bi}_x\text{Cu}_2\text{O}_7$. Physical Review Letters, 2013, 110, 147001.	7.8	81
71	Magnetic excitations in stripe-ordered $\text{La}_{1.875}\text{Ba}_{0.125}\text{CuO}_4$ studied using resonant inelastic x-ray scattering. Physical Review B, 2013, 88, .	3.2	7
72	Magnetic excitations in stripe-ordered $\text{La}_{1.875}\text{Ba}_{0.125}\text{CuO}_4$ studied using resonant inelastic x-ray scattering. Physical Review B, 2013, 88, .	3.2	32

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73	Comparison of stripe modulations in La _{1-x} F _x BiO ₃ and superconducting Ba _{1-x} Bi _x O ₃ . Physical Review Letters, 2012, 109, 157401.	3.2	36
74	Testing the Validity of the Strong Spin-Orbit-Coupling Limit for Octahedrally Coordinated Iridate Compounds in a Model System. Physical Review Letters, 2012, 109, 157401.	3.2	9
75	Spin excitations in a single La ₂ CuO ₄ layer. Nature Materials, 2012, 11, 850-854.	7.8	92
76	Novel metallic states at low temperatures. Low Temperature Physics, 2011, 37, 2-7.	27.5	116
77	Phonons in potassium-doped graphene: The effects of electron-phonon interactions, dimensionality, and adatom ordering. Physical Review B, 2011, 84, .	0.6	4
78	Comparison of stripe modulations in La _{1-x} F _x BiO ₃ and superconducting Ba _{1-x} Bi _x O ₃ . Physical Review Letters, 2012, 109, 157401.	3.2	62
79	Comparative study of the phonons in nonsuperconducting BaCu ₂ O ₇ and superconducting CaCu ₂ O ₇ using inelastic x-ray scattering. Physical Review B, 2011, 84, .	3.2	58
80	Ferromagnetic and ferroelectric quantum phase transitions. Physica Status Solidi (B): Basic Research, 2010, 247, 469-475.	3.2	14
81	Nonadiabatic phonons within the doped graphene layers of Ca _{1-x} Bi _x O ₃ . Physical Review B, 2010, 81, .	1.5	22
82	Neutron scattering study of the high-energy graphitic phonons in superconducting CaCu ₂ O ₇ . Physical Review B, 2010, 82, .	3.2	15
83	Crystallization on heating and complex phase behavior of β -cyclodextrin solutions. Journal of Chemical Physics, 2006, 125, 154504.	3.2	14
84	Waves divide the Fermi sea. Nature Physics, 0, , .	3.0	20
85		16.7	0