

# Padraic Shafer

## List of Publications by Year in descending order

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97  
papers

6,916  
citations

109264

35  
h-index

58549

82  
g-index

100  
all docs

100  
docs citations

100  
times ranked

8075  
citing authors

#	ARTICLE	IF	CITATIONS
1	Superconductivity in a quintuple-layer square-planar nickelate. <i>Nature Materials</i> , 2022, 21, 160-164.	13.3	117
2	Experimental realization of linearly polarized x-ray detected ferromagnetic resonance. <i>New Journal of Physics</i> , 2022, 24, 013030.	1.2	3
3	State-resolved ultrafast charge and spin dynamics in [Co/Pd] multilayers. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	8
4	Determining the Oxygen Stoichiometry of Cobaltite Thin Films. <i>Chemistry of Materials</i> , 2022, 34, 2076-2084.	3.2	2
5	Chiral structures of electric polarization vectors quantified by X-ray resonant scattering. <i>Nature Communications</i> , 2022, 13, 1769.	5.8	6
6	Ultrathin ferroic HfO <sub>2</sub> /ZrO <sub>2</sub> superlattice gate stack for advanced transistors. <i>Nature</i> , 2022, 604, 65-71.	13.7	108
7	Cationic Ordering and Its Influence on the Magnetic Properties of Co-Rich Cobalt Ferrite Thin Films Prepared by Reactive Solid Phase Epitaxy on Nb-Doped SrTiO <sub>3</sub> (001). <i>Materials</i> , 2022, 15, 46.	1.3	1
8	Emergent ferroelectricity in subnanometer binary oxide films on silicon. <i>Science</i> , 2022, 376, 648-652.	6.0	65
9	Magnetic moments and spin structure in single-phase B20 Co <sub>1+x</sub> Si <sub>1-x</sub> (x=0.043). <i>Journal of Applied Physics</i> , 2022, 131, .	1.1	0
10	Synthesis and electronic properties of Nd <sub>3</sub> O <sub>3</sub> Ruddlesden-Popper nickelate thin films. <i>Physical Review Materials</i> , 2022, 6, .	0.9	0
11	As <sup>5+</sup> Se Pentagonal Linkers to Induce Chirality and Polarity in Mixed-Valent Fe <sup>4+</sup> Se Tetrahedral Chains Resulting in Hidden Magnetic Ordering. <i>Journal of the American Chemical Society</i> , 2022, 144, 11283-11295.	6.6	3
12	The exceedingly strong two-dimensional ferromagnetism in bi-atomic layer SrRuO <sub>3</sub> with a critical conduction transition. <i>Nano Research</i> , 2022, 15, 7584-7589.	5.8	5
13	Spin canting of Ni/CoO/Fe films grown on curved MgO(0 0 1) substrate. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 561, 169668.	1.0	0
14	Canted standing spin-wave modes of permalloy thin films observed by ferromagnetic resonance. <i>New Journal of Physics</i> , 2021, 23, 023017.	1.2	4
15	Proximate Quantum Spin Liquid on Designer Lattice. <i>Nano Letters</i> , 2021, 21, 2010-2017.	4.5	4
16	Strain-Induced Anion-Site Occupancy in Perovskite Oxyfluoride Films. <i>Chemistry of Materials</i> , 2021, 33, 1811-1820.	3.2	10
17	Emergent long-range magnetic order in ultrathin (111)-oriented LaNiO <sub>3</sub> films. <i>Npj Quantum Materials</i> , 2021, 6, .	1.8	3
18	Cation and anion topotactic transformations in cobaltite thin films leading to Ruddlesden-Popper phases. <i>Physical Review Materials</i> , 2021, 5, .	0.9	7

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19	Tunable room-temperature ferromagnetism in Co-doped two-dimensional van der Waals ZnO. Nature Communications, 2021, 12, 3952.	5.8	54
20	Search for $Q \approx 0$ Order near a Forbidden Bragg Position in $\text{Bi}_{2.1}\text{Sr}_{1.9}\text{CaCu}_2\text{O}_{8+x}$ with Resonant Soft X-ray Scattering. Journal of the Physical Society of Japan, 2021, 90, 111007.	0.7	0
21	Strain-Induced Orbital Contributions to Oxygen Electrocatalysis in Transition-Metal Perovskites. Advanced Energy Materials, 2021, 11, 2102175.	10.2	9
22	Interface Magnetization Phenomena in Epitaxial Thin $\text{Fe}_3\text{O}_4/\text{Co}_x\text{Fe}_{3-x}\text{O}_4$ Bilayers. Journal of Physical Chemistry C, 2021, 125, 23327-23337.	1.5	1
23	Distinguishing electronic contributions of surface and sub-surface transition metal atoms in Ti-based MXenes. 2D Materials, 2020, 7, 025015.	2.0	31
24	Element-Specific Detection of Sub-Nanosecond Spin-Transfer Torque in a Nanomagnet Ensemble. Nano Letters, 2020, 20, 7828-7834.	4.5	5
25	Evidence of a magnetic transition in atomically thin $\text{Cr}_2\text{TiC}_2\text{T}_x$ MXene. Nanoscale Horizons, 2020, 5, 1557-1565.	4.1	51
26	X-ray Dichroism. Synchrotron Radiation News, 2020, 33, 2-3.	0.2	0
27	Termination switching of antiferromagnetic proximity effect in topological insulator. Science Advances, 2020, 6, eaaz8463.	4.7	20
28	Creation of skyrmions in van der Waals ferromagnet $\text{Fe}_3\text{GeTe}_2$ on (Co/Pd) $n$ superlattice. Science Advances, 2020, 6, .	4.7	89
29	Exchange bias switching in an antiferromagnet/ferromagnet bilayer driven by spin-orbit torque. Nature Electronics, 2020, 3, 757-764.	13.1	99
30	Orientation-dependent stabilization of $\text{MgCr}_4\text{O}_{14}$ spinel thin films. Physical Review B, 2020, 102, .	1.1	4
31	Optically and Microwave-Induced Magnetization Precession in [Co/Pt]/NiFe Exchange Springs. ACS Applied Materials & Interfaces, 2020, 12, 52116-52124.	4.0	5
32	Coherent Transfer of Spin Angular Momentum by Evanescent Spin Waves within Antiferromagnetic NiO. Physical Review Letters, 2020, 124, 217201.	2.9	47
33	Independence of the spin current from the Néel vector orientation in antiferromagnet CoO. Physical Review B, 2020, 101, .	1.1	2
34	Direct Evidence of the Competing Nature between Electronic and Lattice Breathing Order in Rare-Earth Nickelates. Physical Review Letters, 2020, 124, 127601.	2.9	4
35	Element- and Time-Resolved Measurements of Spin Dynamics Using X-ray Detected Ferromagnetic Resonance. Synchrotron Radiation News, 2020, 33, 12-19.	0.2	12
36	Emergent electric field control of phase transformation in oxide superlattices. Nature Communications, 2020, 11, 902.	5.8	35

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37	Tunable Magnetoelastic Effects in Voltage-Controlled Exchange-Coupled Composite Multiferroic Microstructures. ACS Applied Materials & Interfaces, 2020, 12, 6752-6760.	4.0	12
38	Probing Electronic and Magnetic Transitions of Short Periodic Nickelate Superlattices Using Synchrotron X-rays. Synchrotron Radiation News, 2020, 33, 25-29.	0.2	0
39	Modification of magnetocrystalline anisotropy via ion-implantation. AIP Advances, 2020, 10, .	0.6	7
40	The role of iron in magnetic damping of Mg(Al,Fe)2O4 spinel ferrite thin films. Applied Physics Letters, 2020, 116, .	1.5	12
41	Correlation-driven eightfold magnetic anisotropy in a two-dimensional oxide monolayer. Science Advances, 2020, 6, eaay0114.	4.7	43
42	Enhanced ferroelectricity in ultrathin films grown directly on silicon. Nature, 2020, 580, 478-482.	13.7	486
43	Emergent behavior of LaNiO3 in short-periodic nickelate superlattices. APL Materials, 2020, 8, .	2.2	8
44	A new era in ferroelectrics. APL Materials, 2020, 8, .	2.2	36
45	Cation- and lattice-site-selective magnetic depth profiles of ultrathin $\text{FeO}_3$ films. Physical Review B, 2020, 102, .	1.1	8
46	Unconventional crystal-field splitting in noncentrosymmetric $\text{BaTiO}_3$ thin films. Physical Review Materials, 2020, 4, .	1.1	3
47	Emergent Magnetic State in (111)-Oriented Quasi-Two-Dimensional Spinel Oxides. Nano Letters, 2019, 19, 8381-8387.	4.5	10
48	Interfacial charge-transfer Mott state in iridate nickelate superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19863-19868.	3.3	31
49	Evolution of charge order topology across a magnetic phase transition in cuprate superconductors. Nature Physics, 2019, 15, 335-340.	6.5	21
50	Observation of room-temperature polar skyrmions. Nature, 2019, 568, 368-372.	13.7	417
51	Exploring interfacial exchange coupling and sublattice effect in heavy metal/ferrimagnetic insulator heterostructures using Hall measurements, x-ray magnetic circular dichroism, and neutron reflectometry. Physical Review B, 2019, 99, .	1.1	39
52	Anomalous orbital structure in two-dimensional titanium dichalcogenides. Scientific Reports, 2019, 9, 1896.	1.6	5
53	Femtosecond X-ray induced changes of the electronic and magnetic response of solids from electron redistribution. Nature Communications, 2019, 10, 5289.	5.8	22
54	Damping Enhancement in Coherent Ferrite-Insulating-Paramagnet Bilayers. Physical Review Applied, 2019, 12, .	1.5	8

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55	Interplay of structure and charge order revealed by quantum oscillations in thin films of $\text{Pr}_{2-x}\text{Ce}_x\text{MnO}_7$ . Physical Review B, 2019, 100, .	2.1	11
56	Coherent ac spin current transmission across an antiferromagnetic CoO insulator. Nature Communications, 2019, 10, 5265.	5.8	29
57	Magnetism and transport in transparent high-mobility $\text{BaSnO}_3$ films doped with La, Pr, Nd, and Gd. Physical Review Materials, 2019, 3, .	1.9	11
58	Disentangled Cooperative Orderings in Artificial Rare-Earth Nickelates. Physical Review Letters, 2018, 120, 156801.	2.9	23
59	Emergent chirality in the electric polarization texture of titanate superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 915-920.	3.3	121
60	Decoupling Carrier Concentration and Electron-Phonon Coupling in Oxide Heterostructures Observed with Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2018, 121, 236802.	2.9	22
61	Inverted orbital polarization in strained correlated oxide films. Physical Review B, 2018, 98, .	1.1	7
62	Complex strain evolution of polar and magnetic order in multiferroic $\text{BiFeO}_3$ thin films. Nature Communications, 2018, 9, 3764.	5.8	40
63	Ultralow Damping in Nanometer-Thick Epitaxial Spinel Ferrite Thin Films. Nano Letters, 2018, 18, 4273-4278.	4.5	48
64	Electronic properties of ultra-thin $\text{YCrO}_3$ films. Applied Physics Letters, 2018, 112, .	1.5	5
65	Exchange-biasing topological charges by antiferromagnetism. Nature Communications, 2018, 9, 2767.	5.8	61
66	Patterning-Induced Ferromagnetism of $\text{Fe}_3\text{GeTe}_2$ van der Waals Materials beyond Room Temperature. Nano Letters, 2018, 18, 5974-5980.	4.5	177
67	Phase engineering of rare earth nickelates by digital synthesis. Applied Physics Letters, 2018, 113, 081602.	1.5	8
68	Coexistence of Low Damping and Strong Magnetoelastic Coupling in Epitaxial Spinel Ferrite Thin Films. Advanced Materials, 2017, 29, 1701130.	11.1	71
69	Tuning Perpendicular Magnetic Anisotropy by Oxygen Octahedral Rotations in $\text{La}_{1-x}\text{Pr}_x\text{MnO}_3$		

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73	Anomalous Electronic Anisotropy Triggered by Ferroelastic Coupling in Multiferroic Heterostructures. <i>Advanced Materials</i> , 2016, 28, 876-883.	11.1	19
74	Anomalous orbital structure in a spinel-perovskite interface. <i>Npj Quantum Materials</i> , 2016, 1, .	1.8	36
75	Gd-doped BaSnO <sub>3</sub> : A transparent conducting oxide with localized magnetic moments. <i>Applied Physics Letters</i> , 2016, 108, 042106.	1.5	38
76	Orbital configuration in CaTiO <sub>3</sub> films on NdGaO <sub>3</sub> . <i>Applied Physics Letters</i> , 2016, 109, .	1.5	7
77	Femtosecond X-ray magnetic circular dichroism absorption spectroscopy at an X-ray free electron laser. <i>Review of Scientific Instruments</i> , 2016, 87, 033110.	0.6	50
78	Direct Detection of Pure ac Spin Current by X-Ray Pump-Probe Measurements. <i>Physical Review Letters</i> , 2016, 117, 076602.	2.9	52
79	Magnetic Interactions at the Nanoscale in Trilayer Titanates. <i>Physical Review Letters</i> , 2016, 116, 076802.	2.9	23
80	Observation of polar vortices in oxide superlattices. <i>Nature</i> , 2016, 530, 198-201.	13.7	682
81	Charge order and antiferromagnetism in epitaxial ultrathin films of $\text{EuNiO}_3$ . <i>Physical Review B</i> , 2015, 92, .	1.8	18
82	Interface Fe magnetic moment enhancement in MgO/Fe/MgO trilayers. <i>Applied Physics Letters</i> , 2015, 107, 092404.	1.5	14
83	Magnetism and electronic structure of YTiO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	11
84	Electronic and magnetic phenomena at the interface of LaAlO <sub>3</sub> and Ru doped SrTiO <sub>3</sub> . <i>Applied Physics Letters</i> , 2015, 107, 241603.	1.5	3
85	Influence of a Dy overlayer on the precessional dynamics of a ferromagnetic thin film. <i>Applied Physics Letters</i> , 2013, 102, 062418.	1.5	11
86	Phase-resolved x-ray ferromagnetic resonance measurements of spin pumping in spin valve structures. <i>Physical Review B</i> , 2013, 87, .	1.1	35
87	Phase-resolved x-ray ferromagnetic resonance measurements in fluorescence yield. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	34
88	Above-bandgap voltages from ferroelectric photovoltaic devices. <i>Nature Nanotechnology</i> , 2010, 5, 143-147.	15.6	1,496
89	Domain Engineering for Enhanced Ferroelectric Properties of Epitaxial (001) BiFeO <sub>3</sub> Thin Films. <i>Advanced Materials</i> , 2009, 21, 817-823.	11.1	277
90	Nanoscale Control of Domain Architectures in BiFeO <sub>3</sub> Thin Films. <i>Nano Letters</i> , 2009, 9, 1726-1730.	4.5	210

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91	Epitaxial (001) BiFeO <sub>3</sub> membranes with substantially reduced fatigue and leakage. Applied Physics Letters, 2008, 92, 062910.	1.5	107
92	Strain-Induced Polarization Rotation in Epitaxial (001) BiFeO <sub>3</sub> Thin Films. Physical Review Letters, 2008, 101, 107602.	2.9	221
93	Planar electrode piezoelectric force microscopy to study electric polarization switching in BiFeO <sub>3</sub> . Applied Physics Letters, 2007, 90, 202909.	1.5	34
94	Strain Control of Domain-Wall Stability in Epitaxial (110) BiFeO <sub>3</sub> Films. Physical Review Letters, 2007, 99, 217601.	2.9	109
95	Ferroelectric domain structure in epitaxial BiFeO <sub>3</sub> films. Applied Physics Letters, 2005, 87, 182912.	1.5	107
96	Polarization switching in epitaxial BiFeO <sub>3</sub> films. Applied Physics Letters, 2005, 87, 252902.	1.5	118
97	Electric Field-Induced Magnetization Switching in Epitaxial Columnar Nanostructures. Nano Letters, 2005, 5, 1793-1796.	4.5	426