AndrÃ©s Cano

List of Publications by Year
in descending order

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83 papers	2,488 citations	218677 26 h-index	206112 48 g-index
84 all docs	84 docs citations	84 times ranked	3155 citing authors

#	Article	IF	Citations
1	Anisotropic conductance at improper ferroelectric domain walls. Nature Materials, 2012, 11, 284-288.	27.5	409
2	Ferroelectric negative capacitance. Nature Reviews Materials, 2019, 4, 243-256.	48.7	179
3	Ferroelectricity in the multiferroic hexagonalÂmanganites. Nature Physics, 2015, 11, 1070-1073.	16.7	129
4	Functional electronic inversion layers at ferroelectric domain walls. Nature Materials, 2017, 16, 622-627.	27.5	127
5	Multidomain ferroelectricity as a limiting factor for voltage amplification in ferroelectric field-effect transistors. Applied Physics Letters, 2010, 97, .	3.3	111
6	Aharonovâ€“Bohm interferences from local deformations in graphene. Nature Physics, 2011, 7, 810-815.	16.7	107
7	Interplay of magnetic and structural transitions in iron-based pnictide superconductors. Physical Review B, 2010, 82, .	3.2	101
8	Non-collinear magnetism in multiferroic perovskites. Journal of Physics Condensed Matter, 2016, 28, 123001.	1.8	89
9	Electrical half-wave rectification at ferroelectric domain walls. Nature Nanotechnology, 2018, 13, 1028-1034.	31.5	77
10	Importance sampling in Bayesian networks using probability trees. Computational Statistics and Data Analysis, 2000, 34, 387-413.	1.2	73
11	Topological Defects in Hexagonal Manganites: Inner Structure and Emergent Electrostatics. Nano Letters, 2017, 17, 5883-5890.	9.1	56
12	Multiferroic quantum criticality. Nature Materials, 2019, 18, 223-228.	27.5	49
13	The ultrathin limit of improper ferroelectricity. Nature Communications, 2019, 10, 5591.	12.8	44
14	Nickelate Superconductors: An Ongoing Dialog between Theory and Experiments. Journal of Experimental and Theoretical Physics, 2021, 132, 618-627.	0.9	41
15	Global Formation of Topological Defects in the Multiferroic Hexagonal Manganites. Physical Review X, 2017, 7, .	8.9	40
16	Optimization of Electronic Domainâ€Wall Properties by Aliovalent Cation Substitution. Advanced Electronic Materials, 2016, 2, 1500195.	5.1	35
17	Stability analysis of sonic horizons in Bose-Einstein condensates. Physical Review D, 2006, 74, .	4.7	32
18	First-principles study of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mi>Ba</mml:mi><mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ba</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:m mathva. Physical Review B, 2018, 97, .	3.2	32

#	ARTICLE	IF	CITATIONS
19	<I>Ab initio</I> many-body <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml correlations in the electronic structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaNiO</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2020, 101, .	3.2	31
20	Polarization control at spin-driven ferroelectric domain walls. Nature Communications, 2015, 6, 6661.	12.8	30
21	Hidden order in hexagonal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>R</mml:mi><mml:mi>Mn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> multiferroics (<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 652 Td (xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mro	3.2	29
22	Observation of Uncompensated Bound Charges at Improper Ferroelectric Domain Walls. Nano Letters, 2019, 19, 1659-1664.	9.1	28
23	THz Magnetoelectric Atomic Rotations in the Chiral Compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ba</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi>NbFe</mml:mi><mml:mi><mml: mathvariant="bold">O</mml:mi><mml:mn>14</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2019, 119, 157208.	8.6	27
24	Imaging and characterization of conducting ferroelectric domain walls by photoemission electron microscopy. Applied Physics Letters, 2014, 104, .	3.3	27
25	Stability and electronic properties of LaNiO₂/SrTiO₃ heterostructures. JPhys Materials, 2020, 3, 03LT01.	4.2	27
26	Magneto- to Electroactive Transmutation of Spin Waves in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>ErMnO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn> Physical Review Letters, 2014, 112, 137201.	7.8	26
27	Frequency dependent polarisation switching in h-ErMnO3. Applied Physics Letters, 2018, 112, .	3.3	26
28	Explanation of the Glasslike Anomaly in the Low-Temperature Specific Heat of Incommensurate Phases. Physical Review Letters, 2004, 93, 245902.	7.8	25
29	Magnetoelastic effects in iron telluride. Physical Review B, 2011, 83, .	3.2	24
30	Magnetic penetration depth and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>T</mml:mi><mml:mi>c</mml:mi></mml:msub></mml:ma in superconducting nickelates. Physical Review Research, 2020, 2, .	3.6	24
31	Incommensurate Systems as Model Compounds for Disorder Revealing Low-Temperature Glasslike Behavior. Physical Review Letters, 2015, 114, 195502.	7.8	22
32	Background dielectric permittivity: Material constant or fitting parameter?. Ferroelectrics, 2016, 503, 94-103.	0.6	22
33	Iron-based superconductivity extended to the novel silicide LaFeSiH. Physical Review B, 2018, 97, .	3.2	22
34	Elasticity-driven interaction between vortices in type-II superconductors. Physical Review B, 2003, 68, .	3.2	18
35	Theory of electromagnon resonances in the optical response of spiral magnets. Physical Review B, 2009, 80, .	3.2	17
36	Helical bunching and symmetry lowering inducing multiferroicity in Fe langasites. Physical Review B, 2016, 93, .	3.2	17

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37	Universal mechanism of discontinuity of commensurate-incommensurate transitions in three-dimensional solids: Strain dependence of soliton self-energy. Physical Review B, 2002, 66, .	3.2	16
38	Quasinormal mode analysis in BEC acoustic black holes. Physical Review D, 2007, 75, .	4.7	15
39	Electromagnon excitations in modulated multiferroics. Physical Review B, 2008, 78, .	3.2	15
40	Infinite-layer fluoro-nickelates as dâ€‰⁹ model materials. JPhys Materials, 2020, 3, 035003.	4.2	15
41	Interconversion of multiferroic domains and domain walls. Nature Communications, 2021, 12, 2755.	12.8	14
42	Aharonov-Bohm oscillations in the local density of states. Physical Review B, 2009, 80, .	3.2	13
43	Approximate inference in Bayesian networks using binary probability trees. International Journal of Approximate Reasoning, 2011, 52, 49-62.	3.3	13
44	Helical order and multiferroicity in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>S</mml:mi><mml:mo>=</mml:mo><mml:mfrac><mml:m system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>KCu</mml:mi><mml:mn>3</mml:mn></mml:msub><mml mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:math>(OD)<m. Physical Review B, 2014, 89, .	3.2	13
45	Geometric effects in the infinite-layer nickelates. Physical Review Materials, 2022, 6, .	2.4	13
46	Pseudoproper ferroelectricity in thin films. Physical Review B, 2010, 81, .	3.2	12
47	Effect of uniaxial pressure on the magnetostructural transitions of iron arsenide superconductors. Physical Review B, 2012, 85, .	3.2	12
48	Strong effect of surfaces on resolution limit of negative-index â€œsuperlensâ€• Applied Physics Letters, 2005, 87, 103507.	3.3	11
49	Pressure-induced insulatorâ€“metal transition in EuMnO₃. Journal of Physics Condensed Matter, 2017, 29, 305801.	1.8	11
50	Field-induced double spin spiral in a frustrated chiral magnet. Npj Quantum Materials, 2019, 4, .	5.2	11
51	Low-temperature specific heat of real crystals:â€ƒPossibility of leading contribution of optical vibrations and short-wavelength acoustical vibrations. Physical Review B, 2004, 70, .	3.2	9
52	Learning recursive probability trees from probabilistic potentials. International Journal of Approximate Reasoning, 2012, 53, 1367-1387.	3.3	9
53	Topotactic fluorination of intermetallics as an efficient route towards quantum materials. Nature Communications, 2022, 13, 1462.	12.8	7
54	Defects as a cause of continuity of normal-incommensurate phase transitions. Physical Review B, 2000, 62, 12014-12020.	3.2	6

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55	Low-temperature structural phase transitions: Phonon-like and relaxation order-parameter dynamics. Physical Review B, 2004, 70, .	3.2	6
56	â†”â€‰(3 Ã— 3) phase transition in Pb/Ge(111) and Sn/Ge(111): a phenomenological study on the phase transition anomalies and the role of defects. Nanotechnology, 2005, 16, 325-333.	2.6	6
57	Adatom-Adatom Interaction Mediated by an Underlying Surface Phase Transition. Physical Review Letters, 2007, 98, 156102.	7.8	6
58	Impact of spin-nematic order on the lattice domains in thin films of iron-based superconductors. Physical Review B, 2011, 84, .	3.2	6
59	Electrostatic potential mapping at ferroelectric domain walls by low-temperature photoemission electron microscopy. Applied Physics Letters, 2019, 115, .	3.3	6
60	Applying Numerical Trees to Evaluate Asymmetric Decision Problems. Lecture Notes in Computer Science, 2003, , 196-207.	1.3	6
61	Structural phase transitions in two-dimensional systems: Pb/Ge(111) and Sn/Ge(111). Zeitschrift Fur Kristallographie - Crystalline Materials, 2005, 220, 663-671.	0.8	5
62	Interplay between Ca- and Ti-driven ferroelectric distortions in (Ba, Ca)TiO3 solid solutions from first-principles calculations. Applied Physics Letters, 2019, 114, .	3.3	5
63	Single-layer T′-type nickelates: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Ni</mml:mi></mml:mrow><mml:mrow><mml:mn> is <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Ni</mml:mi></mml:mrow><mml:mrow><mml:mn> Physical Review Materials, 2021, 5, .	2.4	5
64	Elasticity-driven interaction between vortices in high-Îº superconductors: leading role of a non-core contribution. Physica C: Superconductivity and Its Applications, 2004, 404, 226-229.	1.2	4
65	On Low-Temperature Structural Phase Transitions. Journal of Superconductivity and Novel Magnetism, 2007, 19, 417-426.	1.8	4
66	Using Binary Trees for the Evaluation of Influence Diagrams. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2016, 24, 59-89.	1.9	4
67	Recursive Probability Trees for Bayesian Networks. Lecture Notes in Computer Science, 2010, , 242-251.	1.3	4
68	Thin-Film Aspects of Superconducting Nickelates. Frontiers in Physics, 2022, 10, .	2.1	4
69	Zero- T Transitions in Order-Disorder Systems: Displacive-Like Behavior. Ferroelectrics, 2003, 283, 3-10.	0.6	3
70	Koshino-Taylor effect in graphene. Physical Review B, 2009, 79, .	3.2	3
71	Ferroelectric instability in nanotubes and spherical nanoshells. Europhysics Letters, 2015, 112, 37006.	2.0	3
72	Evidence of nodal superconductivity in LaFeSiH. Physical Review B, 2020, 101, .	3.2	3

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73	Non-collinear magnetism & multiferroicity: the perovskite case. ChemistrySelect, 2023, 8, 479-508.	1.5	3
74	Magnetic competition in Fe-based germanide and silicide superconductors. Europhysics Letters, 2019, 128, 47004.	2.0	3
75	Valueâ€based potentials: Exploiting quantitative information regularity patterns in probabilistic graphical models. International Journal of Intelligent Systems, 2021, 36, 6913-6943.	5.7	2
76	Improper Ferroelectric Domain Walls. , 2020, , 129-151.		2
77	NICKELATE SUPERCONDUCTORS: AN ONGOING DIALOG BETWEEN THEORY AND EXPERIMENTS. Journal of Experimental and Theoretical Physics, 2021, 159, 711-718.	0.0	1
78	Striction-Mediated Attraction Between Domain Walls: Main Cause of the Discontinuity of Commensurate-Incommensurate Transitions. Ferroelectrics, 2002, 270, 321-326.	0.6	0
79	Influence of striction on soliton interaction in crystals. Crystallography Reports, 2005, 50, 262-269.	0.6	0
80	Cano and Levanyuk Reply:. Physical Review Letters, 2006, 96, .	7.8	0
81	Measuring Ferroelectric Order Parameters at Domain Walls and Vortices in Hexagonal Manganites with Atomic Resolution STEM. Microscopy and Microanalysis, 2017, 23, 1636-1637.	0.4	0
82	Topological thermalization via vortex formation in ultrafast quenches. Physical Review E, 2020, 101, 052113.	2.1	0
83	Probing effects of modified dispersion relations with Bose–Einstein condensates. , 2008, , .		0