

A D Caviglia

List of Publications by Year in descending order

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Version: 2024-02-01

65
papers

6,820
citations

147801

31
h-index

123424

61
g-index

67
all docs

67
docs citations

67
times ranked

6385
citing authors

#	ARTICLE	IF	CITATIONS
1	Superconducting Interfaces Between Insulating Oxides. <i>Science</i> , 2007, 317, 1196-1199.	12.6	2,374
2	Electric field control of the LaAlO ₃ /SrTiO ₃ interface ground state. <i>Nature</i> , 2008, 456, 624-627.	27.8	1,068
3	Tunable Rashba Spin-Orbit Interaction at Oxide Interfaces. <i>Physical Review Letters</i> , 2010, 104, 126803.	7.8	785
4	Two-Dimensional Quantum Oscillations of the Conductance at LaAlO ₃ /SrTiO ₃ Interface. <i>Physical Review Letters</i> , 2010, 105, 236802.	7.8	227
5	Ultrafast Strain Engineering in Complex Oxide Heterostructures. <i>Physical Review Letters</i> , 2012, 108, 136801.	7.8	131
6	Ultrafast control of magnetic interactions via light-driven phonons. <i>Nature Materials</i> , 2021, 20, 607-611.	27.5	112
7	Electrostriction at the LaAlO ₃ /SrTiO ₃ interface. <i>Physical Review Letters</i> , 2011, 107, 056102.	7.8	110
8	Anisotropy of the superconducting transport properties of the LaAlO ₃ /SrTiO ₃ interface. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	110
9	Spatially resolved ultrafast magnetic dynamics initiated at a complex oxide heterointerface. <i>Nature Materials</i> , 2015, 14, 883-888.	27.5	109
10	Influence of the growth conditions on the LaAlO ₃ /SrTiO ₃ interface electronic properties. <i>Europhysics Letters</i> , 2010, 91, 17004.	2.0	103
11	Rashba induced magnetoconductance oscillations in the LaAlO ₃ /SrTiO ₃ heterostructure. <i>Physical Review B</i> , 2012, 86, .	3.2	92
12	Superconductivity at the LaAlO ₃ /SrTiO ₃ interface. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 164213.	1.8	86
13	Ultrafast phononic switching of magnetization. <i>Nature Physics</i> , 2021, 17, 489-492.	16.7	85
14	Spin-Orbit Semimetal in the Two-Dimensional Limit. <i>Physical Review Letters</i> , 2017, 119, 256403.	7.8	83
15	Melting of Charge Stripes in Vibrationally Driven LaAlO ₃ /SrTiO ₃ Interface. <i>Physical Review Letters</i> , 2014, 112, 157002.	7.8	82
16	Berry phase engineering at oxide interfaces. <i>Physical Review Research</i> , 2020, 2, .	3.6	64
17	Giant Negative Magnetoresistance Driven by Spin-Orbit Coupling at the LaAlO ₃ /SrTiO ₃ Interface. <i>Physical Review Letters</i> , 2015, 115, 016803.	7.8	63
18	Coherent spin-wave transport in an antiferromagnet. <i>Nature Physics</i> , 2021, 17, 1001-1006.	16.7	61

#	ARTICLE	IF	CITATIONS
19	Controlling the anisotropy of a van der Waals antiferromagnet with light. <i>Science Advances</i> , 2021, 7, .	10.3	59
20	In-plane electronic confinement in superconducting LaAlO ₃ /SrTiO ₃ nanostructures. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	58
21	Striped nanoscale phase separation at the metal-insulator transition of heteroepitaxial nickelates. <i>Nature Communications</i> , 2016, 7, 13141.	12.8	58
22	Photoinduced melting of magnetic order in the correlated electron insulator NdNiO ₃ . <i>Physical Review B</i> , 2013, 88, .	3.2	57
23	Two-dimensional superconductivity at the (111) LaAlO ₃ /SrTiO ₃ interface. <i>Physical Review B</i> , 2017, 96, .	3.2	47
24	Epitaxial growth and thermodynamic stability of SrIrO ₃ /SrTiO ₃ heterostructures. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	46
25	Electron Scattering at Dislocations in LaAlO ₃ /SrTiO ₃ . <i>Physical Review Letters</i> , 2009, 102, 046809.	3.2	44
26	Electrostatically-tuned superconductor-metal-insulator quantum transition at the LaAlO ₃ /SrTiO ₃ interface. <i>Physical Review B</i> , 2009, 79, .	3.2	44
27	Seebeck effect in the conducting LaAlO ₃ /SrTiO ₃ interface. <i>Physical Review B</i> , 2010, 81, .	3.2	43
28	Nanoscale Electrostatic Control of Oxide Interfaces. <i>Nano Letters</i> , 2015, 15, 2627-2632.	9.1	40
29	Growth-induced electron mobility enhancement at the LaAlO ₃ /SrTiO ₃ interface. <i>Applied Physics Letters</i> , 2015, 106, 051604.	3.3	40
30	Side Gate Tunable Josephson Junctions at the LaAlO ₃ /SrTiO ₃ Interface. <i>Nano Letters</i> , 2017, 17, 715-720.	9.1	36
31	Quantum interference in an interfacial superconductor. <i>Nature Nanotechnology</i> , 2016, 11, 861-865.	31.5	33
32	Selective High-Frequency Mechanical Actuation Driven by the VO ₂ Electronic Instability. <i>Advanced Materials</i> , 2017, 29, 1701618.	21.0	32
33	Single-Crystal Pt-Decorated WO ₃ Ultrathin Films: A Platform for Sub-ppm Hydrogen Sensing at Room Temperature. <i>ACS Applied Nano Materials</i> , 2018, 1, 3446-3452.	5.0	29
34	A spin-orbit playground: surfaces and interfaces of transition metal oxides. <i>Reports on Progress in Physics</i> , 2019, 82, 012501.	20.1	29
35	Current-driven hysteresis effects in manganite spintronics devices. <i>Physical Review B</i> , 2006, 74, .	3.2	26
36	Balanced electron-hole transport in spin-orbit semimetal SrIrO ₃ heterostructures. <i>Physical Review B</i> , 2018, 97, .	3.2	24

#	ARTICLE	IF	CITATIONS
37	Ultrathin complex oxide nanomechanical resonators. Communications Physics, 2020, 3, .	5.3	24
38	Transport regimes of a split gate superconducting quantum point contact in the two-dimensional LaAlO ₃ /SrTiO ₃ superfluid. Nature Communications, 2018, 9, 2276.	12.8	23
39	Diodes with breakdown voltages enhanced by the metal-insulator transition of LaAlO ₃ /SrTiO ₃ interfaces. Applied Physics Letters, 2010, 96, 183504.	3.3	21
40	Multiple Supersonic Phase Fronts Launched at a Complex-Oxide Heterointerface. Physical Review Letters, 2017, 118, 027401.	7.8	21
41	Coupling Charge and Topological Reconstructions at Polar Oxide Interfaces. Physical Review Letters, 2021, 127, 127202.	7.8	20
42	Band inversion driven by electronic correlations at the (111) interface. Physical Review B, 2019, 99, .	8.9	19
43	Ultrafast Spin Dynamics in Photodoped Spin-Orbit Mott Insulator Sr ₂ VO ₄ . Physical Review X, 2019, 9, .	8.9	19
44	Charge doping and large lattice expansion in oxygen-deficient heteroepitaxial WO ₃ . Physical Review Materials, 2018, 2, .	2.4	18
45	Electrostatically Driven Polarization Flop and Strain-Induced Curvature in Free-Standing Ferroelectric Superlattices. Advanced Materials, 2022, 34, e2106826.	21.0	18
46	Temperature dependent inverse spin Hall effect in Co/Pt spintronic emitters. Applied Physics Letters, 2020, 116, .	3.3	17
47	Coupling Lattice Instabilities Across the Interface in Ultrathin Oxide Heterostructures. , 2020, 2, 389-394.		15
48	Ultrafast strain engineering and coherent structural dynamics from resonantly driven optical phonons in LaAlO ₃ . Npj Quantum Materials, 2020, 5, .	5.2	13
49	Quasi-two-dimensional electron gas at the oxide interfaces for topological quantum physics. Europhysics Letters, 2021, 133, 17001.	2.0	10
50	Self-Sealing Complex Oxide Resonators. Nano Letters, 2022, 22, 1475-1482.	9.1	10
51	Large Tunability of Strain in WO ₃ Single-Crystal Microresonators Controlled by Exposure to H ₂ Gas. ACS Applied Materials & Interfaces, 2019, 11, 44438-44443.	8.0	9
52	Non-universal current flow near the metal-insulator transition in an oxide interface. Nature Communications, 2021, 12, 3311.	12.8	9
53	Quantum paraelectricity probed by superconducting resonators. Physical Review B, 2017, 95, .	3.2	8
54	Bimodal Phase Diagram of the Superfluid Density in LaAlO ₃ /SrTiO ₃ Revealed by an Interfacial Waveguide Resonator. Physical Review Letters, 2019, 122, 036801.	12.8	8

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55	Extraordinary Hall balance in ultrathin SrRuO ₃ bilayers. JPhys Materials, 2020, 3, 025005.	4.2	8
56	Gate-tunable pairing channels in superconducting non-centrosymmetric oxides nanowires. Npj Quantum Materials, 2022, 7, .	5.2	8
57	Insulator-to-Metal Transition at Oxide Interfaces Induced by WO ₃ Overlayers. ACS Applied Materials & Interfaces, 2017, 9, 42336-42343.	8.0	6
58	Anisotropic magnetoresistance in spin-orbit semimetal SrIrO_3 . European Physical Journal Plus, 2020, 135, 627.	2.6	6
59	Nanopatterning of Weak Links in Superconducting Oxide Interfaces. Nanomaterials, 2021, 11, 398.	4.1	6
60	Planar spin valves fabricated on manganite epitaxial thin films. Journal of Applied Physics, 2006, 99, 114508.	2.5	5
61	Light control of the nanoscale phase separation in heteroepitaxial nickelates. Physical Review Materials, 2018, 2, .	2.4	5
62	Transport properties of non magnetic and magnetic ZnO thin films under field effect. , 2007, , .		1
63	Superconductivity and magnetism living apart together?. Physics Magazine, 2011, 4, .	0.1	1
64	Heterogeneous Magnetic Order Melting Triggered by Ultrafast Lattice Control at the LaAlO ₃ /NdNiO ₃ Interface. , 2014, , .		0
65	Transport Properties of TMO Interfaces. Springer Series in Materials Science, 2018, , 37-53.	0.6	0