

Sergio Valencia

List of Publications by Year in descending order

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103
papers

4,662
citations

126907
33
h-index

98798
67
g-index

107
all docs

107
docs citations

107
times ranked

6508
citing authors

#	ARTICLE	IF	CITATIONS
1	Extremely long-range, high-temperature Josephson coupling across a half-metallic ferromagnet. <i>Nature Materials</i> , 2022, 21, 188-194.	27.5	20
2	Magnetic Anisotropy of Individual Nanomagnets Embedded in Biological Systems Determined by Axi-asymmetric X-ray Transmission Microscopy. <i>ACS Nano</i> , 2022, 16, 7398-7408.	14.6	4
3	Identification of Néel Vector Orientation in Antiferromagnetic Domains Switched by Currents in NiO Thin Films. <i>Physical Review Applied</i> , 2021, 15,	3.8	16
4	Fractal polymer islands on top of ferromagnetic $\text{La}_2\text{Ni}_0.6\text{Mn}_{1.4}\text{O}_6$ thin films. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 537, 168203.	2.3	0
5	Nonreciprocal Transport in a Rashba Ferromagnet, Delafossite PdCoO_2. <i>Nano Letters</i> , 2021, 21, 8687-8692.	9.1	9
6	Superconducting imprint of magnetic textures in ferromagnets with perpendicular magnetic anisotropy. <i>Scientific Reports</i> , 2021, 11, 20788.	3.3	5
7	Controlled Magnetic Anisotropy in Single Domain Mn-doped Biosynthesized Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22827-22838.	3.1	9
8	Structural sensitivity of the spin Hall magnetoresistance in antiferromagnetic thin films. <i>Physical Review B</i> , 2020, 102, .	3.2	19
9	Temperature dependence of the Dzyaloshinskii-Moriya interaction in ultrathin films. <i>Physical Review B</i> , 2020, 101, .	3.2	29
10	A local view of the laser induced magnetic domain dynamics in CoPd stripe domains at the picosecond time scale. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 465801.	1.8	1
11	Mechanism of Néel Order Switching in Antiferromagnetic Thin Films Revealed by Magnetotransport and Direct Imaging. <i>Physical Review Letters</i> , 2019, 123, 177201.	7.8	119
12	Mapping spin-charge conversion to the band structure in a topological oxide two-dimensional electron gas. <i>Nature Materials</i> , 2019, 18, 1187-1193.	27.5	103
13	Imaging and Harnessing Percolation at the Metal-Insulator Transition of NdNiO_3 Nanogaps. <i>Nano Letters</i> , 2019, 19, 7801-7805.	9.1	12
14	Ferroelectric Control of Interface Spin Filtering in Multiferroic Tunnel Junctions. <i>Physical Review Letters</i> , 2019, 122, 037601.	7.8	28
15	Growth and regrowth of adult sea urchin spines involve hydrated and anhydrous amorphous calcium carbonate precursors. <i>Journal of Structural Biology: X</i> , 2019, 1, 100004.	1.3	19
16	Nanoscale mechanical control of surface electrical properties of manganite films with magnetic nanoparticles. <i>Nanoscale Advances</i> , 2019, 1, 1763-1771.	4.6	1
17	Giant topological Hall effect in correlated oxide thin films. <i>Nature Physics</i> , 2019, 15, 67-72.	16.7	111
18	Switching on superferromagnetism. <i>Physical Review Materials</i> , 2019, 3, .	2.4	6

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19	Configuration of the magnetosome chain: a natural magnetic nanoarchitecture. <i>Nanoscale</i> , 2018, 10, 7407-7419.	5.6	47
20	Laser-Rewriteable Ferromagnetism at Thin-Film Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 15232-15239.	8.0	32
21	The distribution and coordination of trace elements in Krithe ostracods and their implications for paleothermometry. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 236, 230-239.	3.9	9
22	Magnetic Study of Co-Doped Magnetosome Chains. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7541-7550.	3.1	24
23	Direct Mapping of Phase Separation across the Metal-Insulator Transition of NdNiO ₃ . <i>Nano Letters</i> , 2018, 18, 2226-2232.	9.1	42
24	Enhancement of spin-orbit coupling at manganite surfaces. <i>Physical Review B</i> , 2018, 98, .	3.2	5
25	A Living-Dead Magnetic Layer at the Surface of Ferrimagnetic DyTiO ₃ Thin Films. <i>Advanced Materials</i> , 2018, 30, e1707489.	21.0	15
26	Laser-driven formation of transient local ferromagnetism in FeRh thin films. <i>Ultramicroscopy</i> , 2017, 183, 104-108.	1.9	9
27	Spatially resolved investigation of all optical magnetization switching in TbFe alloys. <i>Scientific Reports</i> , 2017, 7, 9456.	3.3	11
28	Strain-gradient-induced magnetic anisotropy in straight-stripe mixed-phase bismuth ferrites: Insight into flexomagnetism. <i>Physical Review B</i> , 2017, 96, .	3.2	14
29	Encoding Magnetic States in Monopole-Like Configurations Using Superconducting Dots. <i>Advanced Science</i> , 2016, 3, 1600207.	11.2	12
30	Growth Instabilities as a Source of Surface Chemical Structuration in Functional Perovskite Thin Films. <i>Crystal Growth and Design</i> , 2016, 16, 5479-5486.	3.0	0
31	Control of coexisting magnetic phases by electric fields in NdFe ₃ (BO ₃) ₄ . <i>Physical Review B</i> , 2016, 94, .	3.2	6
32	Movement of magnetic domain walls induced by single femtosecond laser pulses. <i>Physical Review B</i> , 2016, 94, .	3.2	10
33	Ferrimagnetic $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="block">\text{DyCo}_{x}\text{Mn}_{1-x}\text{Fe}_{2-x}$ for Bits in Heat-Assisted Magnetic Recording. <i>Physical Review Applied</i> , 2016, 5, .	1.8	10
34	2D layered transport properties from topological insulator Bi ₂ Se ₃ single crystals and micro flakes. <i>Scientific Reports</i> , 2016, 6, 27483.	3.3	55
35	Hybridization-controlled charge transfer and induced magnetism at correlated oxide interfaces. <i>Nature Physics</i> , 2016, 12, 484-492.	16.7	122
36	Nonmagnetic band gap at the Dirac point of the magnetic topological insulator (Bi _{1-x} Mn _x) ₂ Se ₃ . <i>Nature Communications</i> , 2016, 7, 10559.	12.8	102

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37	Insight into spin transport in oxide heterostructures from interface-resolved magnetic mapping. Nature Communications, 2015, 6, 6306.	12.8	34
38	Local electrical control of magnetic order and orientation by ferroelastic domain arrangements just above room temperature. Scientific Reports, 2015, 5, 10026.	3.3	44
39	Strain-Engineered Ferromagnetism in LaMnO ₃ Thin Films. Crystal Growth and Design, 2015, 15, 5332-5337.	3.0	44
40	ATTENUATION OF SURFACE ACOUSTIC WAVES BY SPIN-“WAVE EXCITATIONS IN $\text{Co}_{60}\text{Fe}_{20}\text{B}_{20}$. Spin, 2014, 04, 1440005.	1.3	0
41	Effect of capping material on interfacial ferromagnetism in FeRh thin films. Journal of Applied Physics, 2014, 115, .	2.5	45
42	Phase separation and electrical switching between two isosymmetric multiferroic phases in tensile strained BiFeO_3 films. Physical Review B, 2014, 89, .		
43	Electric-field control of magnetic order above room temperature. Nature Materials, 2014, 13, 345-351.	27.5	451
44	Domain wall transformations and hopping in La _{0.7} Sr _{0.3} MnO ₃ nanostructures imaged with high resolution x-ray magnetic microscopy. Journal of Physics Condensed Matter, 2014, 26, 456003.	1.8	5
45	Intrinsic antiferromagnetic/insulating phase at manganite surfaces and interfaces. Journal of Physics Condensed Matter, 2014, 26, 166001.	1.8	28
46	Magnetic Anisotropy Engineering in Thin Film Ni Nanostructures by Magnetoelastic Coupling. Physical Review Applied, 2014, 1, .	3.8	85
47	Probing the metal-insulator transition in nickelates using soft x-ray absorption spectroscopy. Applied Physics Letters, 2014, 104, .	3.3	6
48	Printing Nearly-Discrete Magnetic Patterns Using Chemical Disorder Induced Ferromagnetism. Nano Letters, 2014, 14, 435-441.	9.1	79
49	Photoemission electron microscopy study of sub-200 nm self-assembled La _{0.7} Sr _{0.3} MnO ₃ epitaxial islands. Nanoscale, 2013, 5, 2990.	5.6	9
50	Magnetic Dipole and Higher Pole Interaction on a Square Lattice. Physical Review Letters, 2013, 110, 177209.	7.8	41
51	ELECTRICAL-FIELD CONTROL OF MAGNETISM MEDIATED BY STRAIN IN Ni NANOSTRUCTURES FABRICATED ON PRE-POLED PMN-PT (011). Spin, 2013, 03, 1340008.	1.3	2
52	Rationalizing strain engineering effects in rare-earth nickelates. Physical Review B, 2013, 88, .	3.2	58
53	Complex charge ordering in CeRuSn. Physical Review B, 2012, 85, .	3.2	21
54	Atomic and Electronic Structure of the BaTiO ₃ /Fe Interface in Multiferroic Tunnel Junctions. Nano Letters, 2012, 12, 376-382.	9.1	95

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55	Valence Frustration, Phase Competition, and the Magnetoelectric Effect in $\text{Nd}_x\text{Fe}_{3-x}\text{O}_3$	$\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}$ $\text{display}=\text{"inline"} > \langle \text{mml:msub} > \langle \text{mml:mi} > \text{NdFe} < / \text{mml:mi} > \langle \text{mml:mn} > 3 < / \text{mml:mn} > \langle / \text{mml:msub} > \langle \text{mml:mo} > \text{stretchy}=\text{"false"} > \langle / \text{mml:mo} > \langle \text{mml:msub} > \langle \text{mml:mi} > \text{BO} < / \text{mml:mi} > \langle \text{mml:mn} > 3 < / \text{mml:mn} > \langle / \text{mml:msub} > \langle \text{mml:msub} > \langle \text{mml:mi} > 7.8 < / \text{mml:mi} > \langle \text{mml:mn} > 24 < / \text{mml:mn} > \langle / \text{mml:msub} >$	7.8	Tj ETQq
56	Valence transition in $(\text{Pr},\text{Ca})\text{CoO}_3$	$\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}$ $\text{display}=\text{"inline"} > \langle \text{mml:mrow} > \langle \text{mml:msub} > \langle \text{mml:mrow} > / \text{mml:mrow} > \langle \text{mml:mrow} > \langle \text{mml:mn} > 3 < / \text{mml:mn} > \langle / \text{mml:mrow} > \langle / \text{mml:msub} > \langle / \text{mml:mrow} > \langle / \text{mml:math} > \text{cobaltites:}$	3.2	55
57	Charge migration at the metal-insulator transition.	Physical Review B, 2011, 84,		
58	Interfacial effects in $\text{La}_{2/3}\text{Sr}_{1/3}\text{MnO}_3$ thin films with different complex oxide capping layers.	Journal of Applied Physics, 2011, 109, 07D718.	2.5	5
59	Interface-induced room-temperature multiferroicity in BaTiO_3 .	Nature Materials, 2011, 10, 753-758.	27.5	341
60	Interfacial effects in manganite thin films with different capping layers of interest for spintronic applications.	Physical Review B, 2011, 84.	3.2	28
61	Valence change of praseodymium in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$.	$\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}$ $\text{display}=\text{"inline"} > \langle \text{mml:msub} > \langle \text{mml:mrow} > / \text{mml:mrow} > \langle \text{mml:mn} > 0.5 < / \text{mml:mn} > \langle / \text{mml:mrow} > \langle / \text{mml:msub} > \langle / \text{mml:math} > \text{Ca} < \text{mml:math} > \text{CoO} < \text{mml:math} > \text{manganite}$	3.2	53
62	Exploration of magnetic order in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$.	$\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}$ $\text{display}=\text{"inline"} > \langle \text{mml:msub} > \langle \text{mml:mrow} > / \text{mml:mrow} > \langle \text{mml:mn} > 0.5 < / \text{mml:mn} > \langle / \text{mml:mrow} > \langle / \text{mml:msub} > \langle / \text{mml:math} > \text{CoO} < \text{mml:math} > \text{manganite}$	0.4	1
63	Hard x-ray resonant scattering study of $\text{Ni}_{81}\text{Fe}_{19}(111)/\text{CoO}(111)$ exchange biased bilayer.	Journal of Physics: Conference Series, 2010, 211, 012018.	1.2	5
64	Exploration of magnetic order in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$.	Physical Review B, 2010, 82, .	3.2	91
65	Resonant magnetic reflectivity in the extreme ultraviolet spectral range: Interlayer-coupled $\text{Co}/\text{Si}/\text{Ni}/\text{Fe}$ multilayer system.	Physical Review B, 2010, 82, .	3.2	48
66	Ferromagnetism in transparent thin films of MgO .	Physical Review B, 2010, 82, .		
	Dual behavior of antiferromagnetic uncompensated spins in NiFe/IrMn exchange biased bilayers.	Physical Review B, 2010, 81, .		
	Transition from a phase-segregated state to single-phase incommensurate sodium ordering in $\text{Na}_x\text{Mn}_2\text{O}_4$.	$\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}$ $\text{display}=\text{"inline"} > \langle \text{mml:mrow} > \langle \text{mml:mi} > \text{Na}^x < / \text{mml:mi} > \langle \text{mml:msub} > \langle \text{mml:mrow} > \langle \text{mml:mtext} > \text{-Na} < / \text{mml:mtext} > \langle / \text{mml:mrow} > \langle / \text{mml:msub} >$		

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73	Temperature dependence of the magnetoresistance in Fe/MgO core/shell nanoparticles. <i>Applied Physics Letters</i> , 2009, 94, 262507.		3.3	7
74	X-ray magnetic circular dichroism in reflection geometry: A tool for investigating surface magnetism in thin films. <i>Journal of Applied Physics</i> , 2008, 104, 023903.		2.5	13
75	Impact of microstructure on the Mn valence of $\text{La}_{2-x}\text{Ca}_x\text{MnO}_3$ thin films. <i>Physical Review B</i> , 2007, 75, .		3.2	33
76	Surface degradation of magnetic properties in manganite thin films proved with magneto-optical techniques in reflection geometry. <i>Applied Physics Letters</i> , 2007, 90, 252509.		3.3	10
77	Interfacial Strain: The Driving Force for Selective Orbital Occupancy in Manganite Thin Films. <i>Advanced Functional Materials</i> , 2007, 17, 3918-3925.		14.9	52
78	Mn valence instability in $\text{La}_{2-x}\text{Ca}_x\text{MnO}_3$ thin films. <i>Physical Review B</i> , 2006, 73, .		3.2	48
79	Soft x-ray absorption spectroscopy of strained epitaxial manganite thin films. <i>Applied Physics Letters</i> , 2006, 89, 172512.		3.3	4
80	Faraday rotation spectra at shallow core levels: 3pedges of Fe, Co, and Ni. <i>New Journal of Physics</i> , 2006, 8, 254-254.		2.9	65
81	Surface Resistance of $\text{La}^{2/3-x}\text{Ca}^{1/3+x}\text{MnO}_{3-x}$ Epitaxial Thin Films Grown on Top of LaAlO_3 : Advances in Science and Technology, 2006, 52, 87.		0.2	2
82	Soft X-ray magnetic reflection spectroscopy at the 3p absorption edges of thin Fe films. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2005, 144-147, 881-884.		1.7	27
83	Magneto-optical polarization spectroscopy with soft X-rays. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 80, 1011-1020.		2.3	30
84	Anisotropic magnetoresistance and anomalous Hall effect in manganite thin films. <i>Journal of Physics Condensed Matter</i> , 2005, 17, 2733-2740.		1.8	41
85	Polarized soft-x-ray reflection spectroscopy of giant magnetoresistive Co-Cumultilayers. <i>Physical Review B</i> , 2005, 72, .		3.2	18
86	X-ray Kerr rotation and ellipticity spectra at the 2pedges of Fe, Co, and Ni. <i>Physical Review B</i> , 2004, 69, .		3.2	37
87	X-ray natural birefringence in reflection from graphite. <i>Physical Review B</i> , 2004, 70, .		3.2	18
88	Direct observation of local ferromagnetism on carbon in C/Fe multilayers. <i>Europhysics Letters</i> , 2004, 66, 743-748.		2.0	50
89	Interference effects in the X-ray Kerr rotation spectrum at the Fe 2p edge. <i>Physica B: Condensed Matter</i> , 2004, 345, 189-192.		2.7	11
90	Understanding the XMCD and its magnetocrystalline anisotropy at the L2,3-edges of 3d transition metals. <i>Journal of Magnetism and Magnetic Materials</i> , 2004, 272-276, 2146-2147.		2.3	13

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91	Enhanced low field magnetoresistive response in $(La_{2/3}Sr_{1/3}MnO_3)_x/(CeO_2)^{1-x}$ composite thick films prepared by screen printing. <i>Journal of Applied Physics</i> , 2003, 94, 2524-2528.	2.5	23	
92	Strain-induced charge depletion in $La_{2/3}Ca_{1/3}MnO_3$ epitaxial thin films. <i>Applied Physics Letters</i> , 2003, 82, 4531-4533.	3.3	29	
93	Thickness dependence of the magnetic anisotropy in $La_{2/3}Ca_{1/3}MnO_3$ thin films grown on $LaAlO_3$ substrates. <i>Journal of Applied Physics</i> , 2003, 93, 8059-8061.	2.5	27	
94	Charge trapping in optimally doped epitaxial manganite thin films. <i>Physical Review B</i> , 2002, 66, .	3.2	150	
95	Magnetotransport properties of fully strained epitaxial thin films of $La_{2/3}Ca_{1/3}MnO_3$ grown on $SrTiO_3$. <i>Applied Surface Science</i> , 2002, 188, 202-208.	6.1	19	
96	Thickness dependence of surface roughness and transport properties of $La_{2/3}Ca_{1/3}MnO_3$ epitaxial thin films. <i>Journal of Applied Physics</i> , 2001, 89, 6686-6688.	2.5	25	
97	Nanoscale Multiphase Separation at $La_{2/3}Ca_{1/3}MnO_3/SrTiO_3$ Interfaces. <i>Physical Review Letters</i> , 2001, 87, 067210.	7.8	233	
98	Phase Separation at Interfaces in $La_{2/3}Ca_{1/3}MnO_3$ Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2001, 690, F4.1.1.	0.1	0	
99	Inhomogeneous electronic properties of epitaxial $La_{2/3}Ca_{1/3}MnO_3$ thin films. <i>Thin Solid Films</i> , 2001, 400, 85-89.	1.8	1	
100	SPEEM: The photoemission microscope at the dedicated microfocus PGM beamline UE49-PCMa at BESSY II. <i>Journal of Large-scale Research Facilities JLSRF</i> , 0, 2, A90.	0.0	22	
101	Structural and Magnetotransport Properties of Coherently Strained $La_{2/3}Ca_{1/3}MnO_3$ Epitaxial Thin Films. <i>Advances in Science and Technology</i> , 0, , 81-86.	0.2	1	
102	Surface Resistance of $La_{2/3}Ca_{1/3}MnO_3$ Epitaxial Thin Films Grown on Top of $LaAlO_3$. <i>Advances in Science and Technology</i> , 0, , 87-92.	0.2	1	
103	Correction to "Magnetic Study of Co-Doped Magnetosome Chains". <i>Journal of Physical Chemistry C</i> , 0, .	3.1	0	