

# Xavier Marti

## List of Publications by Year in descending order

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88  
papers

6,272  
citations

109321

35  
h-index

66911

78  
g-index

90  
all docs

90  
docs citations

90  
times ranked

7081  
citing authors

#	ARTICLE	IF	CITATIONS
1	Antiferromagnetic spintronics. Nature Nanotechnology, 2016, 11, 231-241.	31.5	1,578
2	Room-temperature antiferromagnetic memory resistor. Nature Materials, 2014, 13, 367-374.	27.5	546
3	A spin-valve-like magnetoresistance of an antiferromagnet-based tunnel junction. Nature Materials, 2011, 10, 347-351.	27.5	485
4	The multiple directions of antiferromagnetic spintronics. Nature Physics, 2018, 14, 200-203.	16.7	365
5	Electric-Field Control of Exchange Bias in Multiferroic Epitaxial Heterostructures. Physical Review Letters, 2006, 97, 227201.	7.8	295
6	Multiple-stable anisotropic magnetoresistance memory in antiferromagnetic MnTe. Nature Communications, 2016, 7, 11623.	12.8	169
7	Antiferromagnetic CuMnAs multi-level memory cell with microelectronic compatibility. Nature Communications, 2017, 8, 15434.	12.8	149
8	Anisotropic magnetoresistance in an antiferromagnetic semiconductor. Nature Communications, 2014, 5, 4671.	12.8	136
9	Tetragonal phase of epitaxial room-temperature antiferromagnet CuMnAs. Nature Communications, 2013, 4, 2322.	12.8	123
10	Room-Temperature Negative Capacitance in a Ferroelectric Dielectric Superlattice Heterostructure. Nano Letters, 2014, 14, 5814-5819.	9.1	123
11	Magnetization Reversal by Electric-Field Decoupling of Magnetic and Ferroelectric Domain Walls in Multiferroic-Based Heterostructures. Physical Review Letters, 2011, 106, 057206.	7.8	121
12	Nonferroelectric contributions to the hysteresis cycles in manganite thin films: A comparative study of measurement techniques. Journal of Applied Physics, 2011, 109, .	2.5	100
13	Skin Layer of $\text{BiFeO}_3$ Single Crystals. Physical Review Letters, 2011, 106, 236101.	7.8	79
14	Magnetoelectrically Driven Catalytic Degradation of Organics. Advanced Materials, 2019, 31, e1901378.	21.0	74
15	The Poisson Ratio in $\text{CoFe}_2\text{O}_4$ Spinel Thin Films. Advanced Functional Materials, 2012, 22, 4344-4351.	14.9	72
16	Electrical Measurement of Antiferromagnetic Moments in Exchange-Coupled $\text{IrMn/NiFe}$ Stacks. Physical Review Letters, 2012, 108, 017201.	7.8	70
17	Surface phase transitions in $\text{BiFeO}_3$ below room temperature. Physical Review B, 2012, 85, .	3.2	70
18	Epitaxy-distorted spin-orbit Mott insulator in $\text{SrIrO}_4$ thin films. Physical Review B, 2013, 87, .	3.2	70

#	ARTICLE	IF	CITATIONS
19	Strain-induced nonsymmorphic symmetry breaking and removal of Dirac semimetallic nodal line in an orthoperovskite iridate. <i>Physical Review B</i> , 2016, 93, .	3.2	67
20	Room-temperature antiferromagnetism in CuMnAs. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 1606-1612.	2.3	59
21	Storing magnetic information in IrMn/MgO/Ta tunnel junctions via field-cooling. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	56
22	Spintronic Functionality of BiFeO <sub>3</sub> Domain Walls. <i>Advanced Materials</i> , 2014, 26, 7078-7082.	21.0	56
23	Demonstration of molecular beam epitaxy and a semiconducting band structure for I-Mn-V compounds. <i>Physical Review B</i> , 2011, 83, .	3.2	55
24	Multisegmented FeCo/Cu Nanowires: Electrosynthesis, Characterization, and Magnetic Control of Biomolecule Desorption. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 7389-7396.	8.0	54
25	Emergence of ferromagnetism in antiferromagnetic TbMnO <sub>3</sub> by epitaxial strain. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	53
26	The direct magnetoelectric effect in ferroelectric-ferromagnetic epitaxial heterostructures. <i>Nanoscale</i> , 2013, 5, 8037.	5.6	49
27	Exchange bias between magnetoelectric YMnO <sub>3</sub> and ferromagnetic SrRuO <sub>3</sub> epitaxial films. <i>Journal of Applied Physics</i> , 2006, 99, 08P302.	2.5	43
28	Prospect for Antiferromagnetic Spintronics. <i>IEEE Transactions on Magnetism</i> , 2015, 51, 1-4.	2.1	43
29	Magnetic switch of polarization in epitaxial orthorhombic YMnO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	42
30	Effect of stoichiometry on the dielectric properties and soft mode behavior of strained epitaxial SrTiO <sub>3</sub> thin films on DyScO <sub>3</sub> substrates. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	39
31	Voltage-Controlled Ferroelastic Switching in Pb(Zr <sub>0.2</sub> Ti <sub>0.8</sub> )O <sub>3</sub> Thin Films. <i>Nano Letters</i> , 2015, 15, 2229-2234.	9.1	39
32	Ferromagnetism in epitaxial orthorhombic YMnO <sub>3</sub> thin films. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 1719-1722.	2.3	38
33	Four-state ferroelectric spin-valve. <i>Scientific Reports</i> , 2015, 5, 9749.	3.3	38
34	Structural order, magnetic and intrinsic dielectric properties of magnetoelectric La <sub>2</sub> CoMnO <sub>6</sub> . <i>Journal of Alloys and Compounds</i> , 2016, 661, 541-552.	5.5	38
35	Exchange biasing and electric polarization with YMnO <sub>3</sub> . <i>Applied Physics Letters</i> , 2006, 89, 032510.	3.3	37
36	Reversible and magnetically unassisted voltage-driven switching of magnetization in FeRh/PMN-PT. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	37

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37	Strain-induced stabilization of new magnetic spinel structures in epitaxial oxide heterostructures. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2007, 144, 43-48.	3.5	34
38	Ba-doping effects on structural, magnetic and vibrational properties of disordered La <sub>2</sub> NiMnO <sub>6</sub> . <i>Journal of Alloys and Compounds</i> , 2016, 663, 899-905.	5.5	33
39	Nanodomains and nanometer-scale disorder in multiferroic bismuth ferrite single crystals. <i>Acta Materialia</i> , 2015, 82, 356-368.	7.9	32
40	Crystal texture selection in epitaxies of orthorhombic antiferromagnetic YMnO <sub>3</sub> films. <i>Thin Solid Films</i> , 2008, 516, 4899-4907.	1.8	31
41	Electric-Field-Adjustable Time-Dependent Magnetoelectric Response in Martensitic FeRh Alloy. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 15577-15582.	8.0	29
42	Chiral Domains in Cycloidal Multiferroic Thin Films: Switching and Memory Effects. <i>Physical Review Letters</i> , 2011, 107, 257601.	7.8	28
43	Spin-phonon coupling in Gd(Co <sub>1/2</sub> Mn <sub>1/2</sub> )O <sub>3</sub> perovskite. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	27
44	Strain tuned magnetoelectric coupling in orthorhombic YMnO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	26
45	Dielectric anomaly and magnetic response of epitaxial orthorhombic YMnO <sub>3</sub> thin films. <i>Journal of Materials Research</i> , 2007, 22, 2096-2101.	2.6	25
46	Strain-driven noncollinear magnetic ordering in orthorhombic epitaxial YMnO <sub>3</sub> thin films. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	25
47	Hidden Magnetic States Emergent Under Electric Field, In A Room Temperature Composite Magnetoelectric Multiferroic. <i>Scientific Reports</i> , 2017, 7, 15460.	3.3	25
48	Tailoring the interfacial magnetic anisotropy in multiferroic field-effect devices. <i>Physical Review B</i> , 2014, 90, .	3.2	24
49	Giant reversible nanoscale piezoresistance at room temperature in Sr <sub>2</sub> IrO <sub>4</sub> thin films. <i>Nanoscale</i> , 2015, 7, 3453-3459.	5.6	24
50	Programmable Locomotion Mechanisms of Nanowires with Semihard Magnetic Properties Near a Surface Boundary. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 3214-3223.	8.0	23
51	X-ray interference effects on the determination of structural data in ultrathin La <sub>2/3</sub> Sr <sub>1/3</sub> MnO <sub>3</sub> epitaxial thin films. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	22
52	Strain-driven transition from $E$ -type to $A$ -type magnetic order in YMnO <sub>3</sub> epitaxial films. <i>Physical Review B</i> , 2012, 86, .	3.2	22
53	Band structure of CuMnAs probed by optical and photoemission spectroscopy. <i>Physical Review B</i> , 2018, 97, .	3.2	22
54	A MATLAB® code for counting the moiré interference fringes recorded by the optical-mechanical crack gauge TM-71. <i>Computers and Geosciences</i> , 2013, 52, 164-167.	4.2	21

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55	Isothermal anisotropic magnetoresistance in antiferromagnetic metallic IrMn. Scientific Reports, 2016, 6, 35471.	3.3	20
56	Investigation of magneto-structural phase transition in FeRh by reflectivity and transmittance measurements in visible and near-infrared spectral region. New Journal of Physics, 2016, 18, 083017.	2.9	18
57	Epitaxial growth of biferroic YMnO <sub>3</sub> (0001) on platinum electrodes. Journal of Crystal Growth, 2007, 299, 288-294.	1.5	16
58	Ferroelectricity and strain effects in orthorhombic YMnO <sub>3</sub> thin films. Phase Transitions, 2011, 84, 555-568.	1.3	16
59	Infrared phonon spectroscopy of a compressively strained (001) SrTiO <sub>3</sub> film grown on a (110) NdGaO <sub>3</sub> substrate. Journal of Physics Condensed Matter, 2011, 23, 045901.	1.8	16
60	Obtaining the structure factors for an epitaxial film using Cu X-ray radiation. Journal of Applied Crystallography, 2013, 46, 1749-1754.	4.5	16
61	The instrumental resolution of a moire extensometer in light of its recent automatisation. Measurement: Journal of the International Measurement Confederation, 2016, 91, 258-265.	5.0	16
62	Calculating flux to predict future cave radon concentrations. Journal of Environmental Radioactivity, 2016, 157, 16-26.	1.7	15
63	Large landslide stress states calculated during extreme climatic and tectonic events on El Hierro, Canary Islands. Landslides, 2018, 15, 1801-1814.	5.4	15
64	On the persistence of polar domains in ultrathin ferroelectric capacitors. Journal of Physics Condensed Matter, 2017, 29, 284001.	1.8	14
65	Bright Cathodoluminescent Thin Films for Scanning Nano-Optical Excitation and Imaging. ACS Nano, 2013, 7, 10397-10404.	14.6	13
66	Ferroelectric phase transitions in multiferroic Ge <sup>1-x</sup> Mn <sub>x</sub> Tedriven by local lattice distortions. Physical Review B, 2016, 94, .	3.2	13
67	Scanning tunneling microscopy reveals LiMnAs is a room temperature anti-ferromagnetic semiconductor. Applied Physics Letters, 2012, 100, 112107.	3.3	11
68	Structure of epitaxial SrIrO <sub>3</sub> perovskite studied by interference between X-ray waves diffracted by the substrate and the thin film. Journal of Applied Crystallography, 2017, 50, 385-398.	4.5	11
69	Surface morphology and magnetic anisotropy in (Ga,Mn)As. Applied Physics Letters, 2011, 98, 152503.	3.3	10
70	Structure phase transitions of polymorphic compounds with layered crystal structures: The REIr <sub>2</sub> Si <sub>2</sub> case. Intermetallics, 2011, 19, 1622-1626.	3.9	10
71	Role of rare-earth ionic radii on the spin-phonon coupling in multiferroic ordered double perovskites. Materials Research Express, 2015, 2, 075201.	1.6	10
72	Temperature and thickness dependence of tunneling anisotropic magnetoresistance in exchange-biased Py/IrMn/MgO/Ta stacks. Materials Research Express, 2016, 3, 076406.	1.6	9

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73	Dielectric anomalies in orthorhombic YMnO <sub>3</sub> thin films. Thin Solid Films, 2010, 518, 4710-4713.	1.8	8
74	Diffusion of Mn interstitials in (Ga,Mn)As epitaxial layers. Physical Review B, 2011, 83, .	3.2	8
75	Defect-induced magnetic structure of CuMnSb. Physical Review B, 2016, 94, .	3.2	8
76	Electric field effects on magnetotransport properties of multiferroic Py/YMnO <sub>3</sub> /Pt heterostructures. Philosophical Magazine Letters, 2007, 87, 183-191.	1.2	7
77	Critical role of the sample preparation in experiments using piezoelectric actuators inducing uniaxial or biaxial strains. Review of Scientific Instruments, 2013, 84, 103902.	1.3	7
78	In-plane tunnelling field-effect transistor integrated on Silicon. Scientific Reports, 2015, 5, 14367.	3.3	7
79	Monitoring Giant Landslide Detachment Planes in the Era of Big Data Analytics. , 2017, , 333-340.		7
80	Density of Mn interstitials in (Ga,Mn)As epitaxial layers determined by anomalous x-ray diffraction. Applied Physics Letters, 2010, 97, .	3.3	6
81	Molecular beam epitaxy of LiMnAs. Journal of Crystal Growth, 2011, 323, 348-350.	1.5	5
82	Electric control of antiferromagnets. IEEE Transactions on Magnetics, 2016, , 1-1.	2.1	5
83	Enhanced thermal stability of Pt electrodes for flat epitaxial biferroic-YMnO <sub>3</sub> /Pt heterostructures. Applied Physics Letters, 2009, 95, 181907.	3.3	4
84	Disclosure of Double Exchange Bias Effect in Chromium (III) Oxide Nanoparticles. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	4
85	Cathodoluminescence-Activated Imaging by Resonance Energy Transfer: A New Approach to Imaging Nanoscale Aqueous Biodynamics. Biophysical Journal, 2014, 106, 402a.	0.5	2
86	Mn 3 <i>d</i> bands and Yâ€‘O hybridization of hexagonal and orthorhombic YMnO <sub>3</sub> thin films. Journal of Physics Condensed Matter, 2017, 29, 295501.	1.8	2
87	Polarized neutron reflectivity study of NiFe <sub>2</sub> O <sub>4</sub> films with very large saturation magnetization. Journal of Physics: Conference Series, 2011, 303, 012013.	0.4	1
88	The Profile of Researchers Moving Towards Scientific Entrepreneurship. , 2018, , 143-157.		0