MarÃ-a J CalderÃ³n

List of Publications by Year
in descending order

64 papers	2,224 citations	230014 27 h-index	252626 46 g-index
67 all docs	67 docs citations	67 times ranked	3029 citing authors

#	Article	IF	Citations
1	The Role of Orbital Nesting in the Superconductivity of Iron-Based Superconductors. Condensed Matter, 2021, 6, 34.	0.8	0
2	Correlated states in magic angle twisted bilayer graphene under the optical conductivity scrutiny. Npj Quantum Materials, 2020, 5, .	1.8	14
3	Interactions in the 8-orbital model for twisted bilayer graphene. Physical Review B, 2020, 102, .	1.1	27
4	Lifting of spin blockade by charged impurities in Si-MOS double quantum dot devices. Physical Review B, 2020, 101, .	1.1	3
5	The nature of correlations in the insulating states of twisted bilayer graphene. Journal of Physics Communications, 2019, 3, 035024.	0.5	43
6	Enhancement of spin-orbit coupling at manganite surfaces. Physical Review B, 2018, 98, .	1.1	5
7	Two-dimensional semiconductors pave the way towards dopant-based quantum computing. Beilstein Journal of Nanotechnology, 2018, 9, 2668-2673.	1.5	3
8	Signatures of atomic-scale structure in the energy dispersion and coherence of a Si quantum-dot qubit. Physical Review B, 2018, 98, .	1.1	17
9	Electric-field tuning of the valley splitting in silicon corner dots. Applied Physics Letters, 2018, 113, .	1.5	23
10	Entanglement control and magic angles for acceptor qubits in Si. Applied Physics Letters, 2018, 113, .	1.5	11
11	Strong correlations and the search for high- <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 superconductivity in chromium pnictides and chalcogenides. Physical Review B, 2017, 95, .	1.1	18
12	Spin qubit manipulation of acceptor bound states in group IV quantum wells. New Journal of Physics, 2017, 19, 043027.	1.2	9
13	Donor wave functions in Si gauged by STM images. Physical Review B, 2016, 93, .	1.1	18
14	Interface effects on acceptor qubits in silicon and germanium. Nanotechnology, 2016, 27, 024003.	1.3	10
15	Magnetic interactions in iron superconductors: A review. Comptes Rendus Physique, 2016, 17, 36-59.	0.3	60
16	Theory of one and two donors in silicon. Journal of Physics Condensed Matter, 2015, 27, 154208.	0.7	40
17	Correlation, doping, and interband effects on the optical conductivity of iron superconductors. Physical Review B, 2014, 90, .	1.1	20
18	Signatures of a Twoâ€Đimensional Ferromagnetic Electron Gas at the La_{0.7}Sr_{0.3}MnO₃/SrTiO₃ Interface Arising From Orbital Reconstruction. Advanced Materials, 2014, 26, 7516-7520.	11.1	23

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19	An Exchange-Coupled Donor Molecule in Silicon. Nano Letters, 2014, 14, 5672-5676.	4.5	39
20	Optical conductivity and Raman scattering of iron superconductors. Physical Review B, 2013, 87, .	1.1	35
21	Coupling of the As<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>A</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mi>g</mml:mi></mml:mrow></mml:msub></mml:math> to magnetism in iron pnictides. Physical Review B, 2013, 88, .	1.1	13
22	Impact of the valley degree of freedom on the control of donor electrons near a Si/SiO2interface. Physical Review B, 2012, 86, .	1.1	10
23	Magnetic interactions in iron superconductors studied with a five-orbital model within the Hartree-Fock and Heisenberg approximations. Physical Review B, 2012, 86, .	1.1	20
24	Orbital differentiation and the role of orbital ordering in the magnetic state of Fe superconductors. Physical Review B, 2012, 86, .	1.1	56
25	Magnetic-Field Probing of an SU(4) Kondo Resonance in a Single-Atom Transistor. Physical Review Letters, 2012, 108, 046803.	2.9	52
26	Effect of strain on the orbital and magnetic ordering of manganite thin films and their interface with an insulator. Physical Review B, 2011, 83, .	1.1	36
27	Magnetoelectric coupling at the interface of BiFe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>/La<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi /><mml:mrow><mml:mn>0</mml:mn><mml:mo>.</mml:mo><mml:mn>7</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> xmlns:mml="http://www.w3.org/19. Physical Review B, 2011, 84, .	1.1	59
28	Intervalley coupling for interface-bound electrons in silicon: An effective mass study. Physical Review B, 2011, 84, .	1.1	60
29	Allâ€Manganite Tunnel Junctions with Interfaceâ€Induced Barrier Magnetism. Advanced Materials, 2010, 22, 5029-5034.	11.1	34
30	Conductivity Anisotropy in the Antiferromagnetic State of Iron Pnictides. Physical Review Letters, 2010, 105, 207202.	2.9	77
31	Heterointerface effects on the charging energy of the shallow<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mi>D</mml:mi><mml:mo>â^'</mml:mo></mml:msup></mml:mrow></mml:math>grou state in silicon: Role of dielectric mismatch. Physical Review B, 2010, 82, .	1.1	26
32	Low Magnetization and Anisotropy in the Antiferromagnetic State of Undoped Iron Pnictides. Physical Review Letters, 2010, 104, 227201.	2.9	66
33	Physical mechanisms of interface-mediated intervalley coupling in Si. Physical Review B, 2009, 80, .	1.1	77
34	Quantum control and manipulation of donor electrons in Si-based quantum computing. Journal of Applied Physics, 2009, 105, 122410.	1.1	15
35	Effect of tetrahedral distortion on the electronic properties of iron pnictides. New Journal of Physics, 2009, 11, 013051.	1.2	24
36	Tight-binding model for iron pnictides. Physical Review B, 2009, 80, .	1.1	47

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37	Theory of valley interference effects on a donor electron close to a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Si</mml:mi><mml:mo>â^•</mml:mo><mml:mi mathvariant="normal">Si</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>interface. Physical Review B, 2008, 77, .	1.1	14
38	Magnetoresistance of an all-manganite spin valve: A thin antiferromagnetic insulator sandwiched between two ferromagnetic metallic electrodes. Physical Review B, 2008, 77, .	1.1	34
39	Electron gas at the interface between two antiferromagnetic insulating manganites. Physical Review B, 2008, 78, .	1.1	12
40	Limited local electron-lattice coupling in manganites: An electron diffraction study. Physical Review B, 2008, 77, .	1.1	8
41	External field control of donor electron exchange at theSiâ•SiO2interface. Physical Review B, 2007, 75, .	1.1	45
42	Proposal for electron spin relaxation measurements using double-donor excited states in Si quantum computer architectures. Physical Review B, 2007, 75, .	1.1	6
43	Reentrant ferromagnetism in a class of diluted magnetic semiconductors. Physical Review B, 2007, 75, .	1.1	13
44	Reliability of the Heitler-London approach for the exchange coupling between electrons in semiconductor nanostructures. Physical Review B, 2007, 76, .	1.1	11
45	Quantum control of donor-bound electrons at the Si-SiO2 interface. AIP Conference Proceedings, 2007, , .	0.3	0
46	Theory of carrier mediated ferromagnetism in dilute magnetic oxides. Annals of Physics, 2007, 322, 2618-2634.	1.0	98
47	The current spin on manganites. Materials Today, 2007, 10, 24-32.	8.3	95
48	Mean-field theory for double perovskites: Coupling between itinerant electron spins and localized spins. Physical Review B, 2006, 74, .	1.1	36
49	Magnetic-field-assisted manipulation and entanglement of Si spin qubits. Physical Review B, 2006, 74, .	1.1	7
50	Strain control of superlattice implies weak charge-lattice coupling inLa0.5Ca0.5MnO3. Physical Review B, 2006, 73, .	1.1	26
51	Quantum Control of Donor Electrons at theSiâ^'SiO2Interface. Physical Review Letters, 2006, 96, 096802.	2.9	83
52	Exchange coupling in semiconductor nanostructures: Validity and limitations of the Heitler-London approach. Physical Review B, 2006, 74, .	1.1	14
53	Electronically soft phases in manganites. Nature, 2005, 433, 607-610.	13.7	257
54	Evaluation of evidence for magnetic polarons inEuB6. Physical Review B, 2004, 70, .	1.1	18

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55	Strain selection of charge and orbital ordering patterns in half-doped manganites. Physical Review B, 2003, 68, .	1.1	52
56	Impurity-semiconductor band hybridization effects on the critical temperature of diluted magnetic semiconductors. Physical Review B, 2002, 66, .	1.1	39
57	Skyrmion strings contribution to the anomalous Hall effect in double-exchange systems. Physical Review B, 2001, 63, .	1.1	20
58	Spin Dependent Tunneling. , 2001, , 159-171.		2
59	Low-temperature resistivity in double-exchange systems. Physical Review B, 2001, 64, .	1.1	14
60	Stability and dynamics of free magnetic polarons. Physical Review B, 2000, 62, 3368-3371.	1.1	14
61	Conductance as a function of temperature in the double-exchange model. Physical Review B, 1999, 59, 4170-4175.	1.1	29
62	Surface electronic structure and magnetic properties of doped manganites. Physical Review B, 1999, 60, 6698-6704.	1.1	124
63	Monte Carlo simulations for the magnetic phase diagram of the double-exchange Hamiltonian. Physical Review B, 1998, 58, 3286-3292.	1.1	53
64	Backscattering from perfectly reflective random media. Physical Review B, 1997, 55, R11911-R11914.	1.1	9