

Jose L Lado

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

3,273
citations

201674

27
h-index

149698

56
g-index

80
all docs

80
docs citations

80
times ranked

4534
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing magnetism in 2D van der Waals crystalline insulators via electron tunneling. <i>Science</i> , 2018, 360, 1218-1222.	12.6	668
2	On the origin of magnetic anisotropy in two dimensional CrI ₃ . <i>2D Materials</i> , 2017, 4, 035002.	4.4	524
3	A kilobyte rewritable atomic memory. <i>Nature Nanotechnology</i> , 2016, 11, 926-929.	31.5	123
4	Electrically Controllable Magnetism in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2017, 119, 107201.	7.8	114
5	Centimeter-Scale Synthesis of Ultrathin Layered MoO ₃ by van der Waals Epitaxy. <i>Chemistry of Materials</i> , 2016, 28, 4042-4051.	6.7	100
6	Engineering the Eigenstates of Coupled Spin- $\frac{1}{2}$ Atoms on a Surface. <i>Physical Review Letters</i> , 2017, 119, 227206.	7.8	78
7	Electrically Tunable Gauge Fields in Tiny-Angle Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2018, 121, 146801.	7.8	77
8	Hyperfine interaction of individual atoms on a surface. <i>Science</i> , 2018, 362, 336-339.	12.6	74
9	Majorana Zero Modes in Graphene. <i>Physical Review X</i> , 2015, 5, .	8.9	71
10	Electrically Tunable Flat Bands and Magnetism in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2019, 123, 096802.	7.8	69
11	Artificial heavy fermions in a van der Waals heterostructure. <i>Nature</i> , 2021, 599, 582-586.	27.8	69
12	Magnetic Edge Anisotropy in Graphenelike Honeycomb Crystals. <i>Physical Review Letters</i> , 2014, 113, 027203.	7.8	65
13	Emergence of criticality through a cascade of delocalization transitions in quasiperiodic chains. <i>Nature Physics</i> , 2020, 16, 832-836.	16.7	64
14	Tuning the Exchange Bias on a Single Atom from 1 ÅmT to 10 ÅT. <i>Physical Review Letters</i> , 2019, 122, 227203.	7.8	54
15	Characterization of highly crystalline lead iodide nanosheets prepared by room-temperature solution processing. <i>Nanotechnology</i> , 2017, 28, 455703.	2.6	45
16	Real-space mapping of topological invariants using artificial neural networks. <i>Physical Review B</i> , 2018, 97, .	3.2	44
17	Accessing new magnetic regimes by tuning the ligand spin-orbit coupling in van der Waals magnets. <i>Science Advances</i> , 2020, 6, eabb9379.	10.3	42
18	Synthesis, engineering, and theory of 2D van der Waals magnets. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	41

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19	Edge states in graphene-like systems. <i>Synthetic Metals</i> , 2015, 210, 56-67.	3.9	40
20	Electrically controlled nuclear polarization of individual atoms. <i>Nature Nanotechnology</i> , 2018, 13, 1120-1125.	31.5	39
21	Gap Opening in Twisted Double Bilayer Graphene by Crystal Fields. <i>Nano Letters</i> , 2019, 19, 8821-8828.	9.1	39
22	Exchange mechanism for electron paramagnetic resonance of individual adatoms. <i>Physical Review B</i> , 2017, 96, . <i>(i) Ad m<sub>i</sub></i> study of<math xmlns:mml="http://www.w3.org/1998/Math/MathML"><math display="block">\frac{1}{2} \left(\frac{\partial \chi}{\partial H} \right)_{T=0} = \frac{1}{2} \left(\frac{\partial \chi}{\partial H} \right)_{T=0}^{\text{ex}} + \frac{1}{2} \left(\frac{\partial \chi}{\partial H} \right)_{T=0}^{\text{in}}\text{SrTiO}_3) Tj ETQq1 1 0.784314 rgBT /Overloop</i>	3.2	38
23	$\chi = \chi_0 + \chi_{\text{ex}} + \chi_{\text{in}}$		

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37	Landau levels in 2D materials using Wannier Hamiltonians obtained by first principles. <i>2D Materials</i> , 2016, 3, 035023.	4.4	21
38	Electrical spin manipulation in graphene nanostructures. <i>Physical Review B</i> , 2018, 97, .	3.2	21
39	Interaction-Driven Surface Chern Insulator in Nodal Line Semimetals. <i>Physical Review Letters</i> , 2019, 122, 016803. Electronic properties of transition metal atoms on Cu_2N . $\text{Cu}_2\text{N} = \text{Cu}_{100}(\text{Cu}_{100}\text{N})_{100}$	7.8	21
40	Unconventional Yu-Shiba-Rusinov states in hydrogenated graphene. <i>2D Materials</i> , 2016, 3, 025001.	4.4	19
41	Quantum Confinement of Dirac Quasiparticles in Graphene Patterned with Subnanometer Precision. <i>Advanced Materials</i> , 2020, 32, e2001119.	21.0	19
42	Single spin resonance driven by electric modulation of the g -factor anisotropy. <i>Physical Review Research</i> , 2019, 1, .	3.6	18
43	Quantum Hall effect in gapped graphene heterojunctions. <i>Physical Review B</i> , 2013, 88, .	3.2	17
44	Defect-induced magnetism and Yu-Shiba-Rusinov states in twisted bilayer graphene. <i>Physical Review Materials</i> , 2019, 3, .	2.4	17
45	Non-Hermitian many-body topological excitations in interacting quantum dots. <i>Physical Review Research</i> , 2022, 4, .	3.6	17
46	Antichiral states in twisted graphene multilayers. <i>Physical Review Research</i> , 2020, 2, .	3.6	14
47	Anomalous magnetism in hydrogenated graphene. <i>Physical Review B</i> , 2017, 96, .	3.2	13
48	Spontaneous Valley Spirals in Magnetically Encapsulated Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2021, 126, 056803.	7.8	13
49	Detecting nonunitary multiorbital superconductivity with Dirac points at finite energies. <i>Physical Review Research</i> , 2019, 1, .	3.6	13
50	Exchange-bias controlled correlations in magnetically encapsulated twisted van der Waals dichalcogenides. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 474001.	2.8	12
51	Correlations in the elastic Landau level of spontaneously buckled graphene. <i>2D Materials</i> , 2021, 8, 015011.	4.4	12
52	Impurity-induced resonant spinon zero modes in Dirac quantum spin liquids. <i>Physical Review Research</i> , 2020, 2, .	3.6	12
53	Quantum spin Hall effect in rutile-based oxide multilayers. <i>Physical Review B</i> , 2016, 94, .	3.2	11

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55	Confinement-Engineered Superconductor to Correlated-Insulator Transition in a van der Waals Monolayer. <i>Nano Letters</i> , 2022, 22, 1845-1850. Noncollinear versus collinear description of the Ir-based one- IrO_3 perovskite-related compounds. <i>Physical Review B</i> , 2015, 92, . Solitonic in-gap modes in a superconductor-quantum antiferromagnet interface. <i>Physical Review Research</i> , 2020, 2, .	9.1	11
56	xmlNs:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Sr</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mn>2</mml:mn><mml:mi>Sr</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>	8.2	10
57	xmlNs:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Sr</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>	3.6	10
58	Inducing a many-body topological state of matter through Coulomb-engineered local interactions. <i>Physical Review Research</i> , 2021, 3, .	3.6	9
59	Lee-Yang theory of criticality in interacting quantum many-body systems. <i>Physical Review Research</i> , 2021, 3, .	3.6	9
60	Spin-orbit correlations and exchange-bias control in twisted Janus dichalcogenide multilayers. <i>New Journal of Physics</i> , 2021, 23, 073038.	2.9	8
61	Dynamical topological excitations in parafermion chains. <i>Physical Review Research</i> , 2021, 3, .	3.6	7
62	Correlation-induced valley topology in buckled graphene superlattices. <i>2D Materials</i> , 2021, 8, 035057.	4.4	7
63	Kondo lattice mediated interactions in flat-band systems. <i>Physical Review Research</i> , 2021, 3, .	3.6	6
64	Tunable moire spinons in magnetically encapsulated twisted van der Waals quantum spin liquids. <i>Physical Review Research</i> , 2021, 3, .	3.6	5
65	Nonunitary multiorbital superconductivity from competing interactions in Dirac materials. <i>Physical Review Research</i> , 2022, 4, .	3.6	5
66	Quantum spin Hall phase in multilayer graphene. <i>Physical Review B</i> , 2015, 91, .	3.2	4
67	Electronic transport in gadolinium atomic-size contacts. <i>Physical Review B</i> , 2017, 95, .	3.2	4
68	Neural network enhanced hybrid quantum many-body dynamical distributions. <i>Physical Review Research</i> , 2021, 3, .	3.6	4
69	Electrical detection of individual skyrmions in graphene devices. <i>Physical Review B</i> , 2017, 96, .	3.2	3
70	Many-body Majorana-like zero modes without gauge symmetry breaking. <i>Physical Review Research</i> , 2021, 3, .	3.6	3
71	Designing spin-textured flat bands in twisted graphene multilayers via helimagnet encapsulation. <i>2D Materials</i> , 2022, 9, 024002.	4.4	3
72	Controlling magnetism through Ising superconductivity in magnetic van der Waals heterostructures. <i>Physical Review B</i> , 2022, 105, .	3.2	3

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73	Interaction-induced topological superconductivity in antiferromagnet-superconductor junctions. Physical Review Research, 2021, 3, .	3.6	2
74	Quasiperiodic criticality and spin-triplet superconductivity in superconductor-antiferromagnet moiré patterns. Physical Review Research, 2021, 3, .	3.6	2
75	Putting a twist on spintronics. Science, 2021, 374, 1048-1049.	12.6	2
76	Noncontact Andreev Reflection as a Direct Probe of Superconductivity on the Atomic Scale. Nano Letters, 2022, 22, 4042-4048.	9.1	2
77	Dirac topological insulator in the $\sqrt{3}\times\sqrt{3}$ honeycomb oxide. Physical Review B, 2016, 94, .		
78	A layered unconventional superconductor. Nature Physics, 0, , .	16.7	1
79	Topological features of engineered arrays of adsorbates in honeycomb lattices. Physica B: Condensed Matter, 2016, 496, 1-8.	2.7	0
80	Emergent quantum matter in graphene nanoribbons. , 0, , .		0