

Alejandro W Rodriguez

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

3,262
citations

236925

25
h-index

182427

51
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all docs

51
docs citations

51
times ranked

2938
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluctuational electrodynamics in atomic and macroscopic systems: van der Waals interactions and radiative heat transfer. <i>Physical Review B</i> , 2020, 102, .	3.2	2
2	Mechanical relations between conductive and radiative heat transfer. <i>Physical Review B</i> , 2020, 102, .	3.2	2
3	Channel-based algebraic limits to conductive heat transfer. <i>Physical Review B</i> , 2020, 102, .	3.2	2
4	Active Control of Multiple, Simultaneous Nonlinear Optical Processes in Plasmonic Nanogap Cavities. <i>ACS Photonics</i> , 2020, 7, 901-907.	6.6	21
5	Fundamental Limits to Radiative Heat Transfer: The Limited Role of Nanostructuring in the Near-Field. <i>Physical Review Letters</i> , 2020, 124, 013904.	7.8	35
6	Global $\langle T \rangle$ operator bounds on electromagnetic scattering: Upper bounds on far-field cross sections. <i>Physical Review Research</i> , 2020, 2, .	3.6	26
7	Impact of nuclear vibrations on van der Waals and Casimir interactions at zero and finite temperature. <i>Science Advances</i> , 2019, 5, eaaw0456.	10.3	7
8	Quantum Rabi Model with Two-Photon Relaxation. <i>Physical Review Letters</i> , 2019, 122, 043601.	7.8	17
9	$\langle T \rangle$ Operator Bounds on Angle-Integrated Absorption and Thermal Radiation for Arbitrary Objects. <i>Physical Review Letters</i> , 2019, 123, 257401.	7.8	26
10	Material scaling and frequency-selective enhancement of near-field radiative heat transfer for lossy metals in two dimensions via inverse design. <i>Physical Review B</i> , 2019, 99, .	3.2	23
11	Topology-optimized dual-polarization Dirac cones. <i>Physical Review B</i> , 2018, 97, .	3.2	23
12	Topology-Optimized Multilayered Metaoptics. <i>Physical Review Applied</i> , 2018, 9, .	3.8	129
13	Ballistic near-field heat transport in dense many-body systems. <i>Physical Review B</i> , 2018, 97, .	3.2	29
14	Inverse design in nanophotonics. <i>Nature Photonics</i> , 2018, 12, 659-670.	31.4	1,014
15	Phonon-Polariton Mediated Thermal Radiation and Heat Transfer among Molecules and Macroscopic Bodies: Nonlocal Electromagnetic Response at Mesoscopic Scales. <i>Physical Review Letters</i> , 2018, 121, 045901.	7.8	13
16	Near-field refrigeration and tunable heat exchange through four-wave mixing. <i>AIP Advances</i> , 2018, 8, 055029.	1.3	17
17	Near-Field Radiative Heat Transfer under Temperature Gradients and Conductive Transfer. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2017, 72, 141-149.	1.5	2
18	Giant heat transfer in the crossover regime between conduction and radiation. <i>Nature Communications</i> , 2017, 8, .	12.8	121

#	ARTICLE	IF	CITATIONS
19	Thermal bistability through coupled photonic resonances. Applied Physics Letters, 2017, 111, 083104.	3.3	12
20	General formulation of coupled radiative and conductive heat transfer between compact bodies. Physical Review B, 2017, 95, .	3.2	6
21	Unifying Microscopic and Continuum Treatments of van der Waals and Casimir Interactions. Physical Review Letters, 2017, 118, 266802.	7.8	25
22	Enhanced nonlinear frequency conversion and Purcell enhancement at exceptional points. Physical Review B, 2017, 96, .	3.2	28
23	Giant frequency-selective near-field energy transfer in activeâ€“passive structures. Physical Review B, 2016, 94, .	3.2	16
24	Nonadditivity of van der Waals forces on liquid surfaces. Physical Review E, 2016, 94, 030801.	2.1	4
25	Strongly coupled near-field radiative and conductive heat transfer between planar bodies. Physical Review B, 2016, 94, .	3.2	19
26	Enhanced Spontaneous Emission at Third-Order Dirac Exceptional Points in Inverse-Designed Photonic Crystals. Physical Review Letters, 2016, 117, 107402.	7.8	181
27	Exact formulas for radiative heat transfer between planar bodies under arbitrary temperature profiles: Modified asymptotics and sign-flip transitions. Physical Review B, 2016, 94, .	3.2	8
28	Spike processing with a graphene excitable laser. Scientific Reports, 2016, 6, 19126.	3.3	130
29	Amplified and directional spontaneous emission from arbitrary composite bodies: A self-consistent treatment of Purcell effect below threshold. Physical Review B, 2016, 93, .	3.2	11
30	Temperature control of thermal radiation from composite bodies. Physical Review B, 2016, 93, .	3.2	18
31	Fluctuating volume-current formulation of electromagnetic fluctuations in inhomogeneous media: Incandescence and luminescence in arbitrary geometries. Physical Review B, 2015, 92, .	3.2	73
32	Shape-Independent Limits to Near-Field Radiative Heat Transfer. Physical Review Letters, 2015, 115, 204302.	7.8	76
33	On the Computation of Power in Volume Integral Equation Formulations. IEEE Transactions on Antennas and Propagation, 2015, 63, 611-620.	5.1	28
34	Radiative heat transfer in nonlinear Kerr media. Physical Review B, 2015, 91, .	3.2	27
35	Symmetric Plasmonic Slot Waveguides with a Nonlinear Dielectric Core: Bifurcations, Size Effects, and Higher Order Modes. Plasmonics, 2015, 10, 33-38.	3.4	20
36	Classical and fluctuationâ€“induced electromagnetic interactions in micronâ€“scale systems: designer bonding, antibonding, and Casimir forces. Annalen Der Physik, 2015, 527, 45-80.	2.4	45

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37	Absolute position total internal reflection microscopy with an optical tweezer. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5609-15.	7.1	30
38	Effectiveness of Thin Films in Lieu of Hyperbolic Metamaterials in the Near Field. Physical Review Letters, 2014, 112, 157402.	7.8	83
39	High-efficiency degenerate four-wave mixing in triply resonant nanobeam cavities. Physical Review A, 2014, 89, .	2.5	14
40	Optical bistability with a repulsive optical force in coupled silicon photonic crystal membranes. Applied Physics Letters, 2013, 103, .	3.3	14
41	Anomalous Near-Field Heat Transfer between a Cylinder and a Perforated Surface. Physical Review Letters, 2013, 110, 014301.	7.8	28
42	Fluctuation-Induced Phenomena in Nanoscale Systems: Harnessing the Power of Noise. Proceedings of the IEEE, 2013, 101, 531-545.	21.3	26
43	Geometry-Induced Casimir Suspension of Oblate Bodies in Fluids. Physical Review Letters, 2013, 111, 180402.	7.8	8
44	Fluctuating-surface-current formulation of radiative heat transfer: Theory and applications. Physical Review B, 2013, 88, .	3.2	90
45	Fluctuating-surface-current formulation of radiative heat transfer for arbitrary geometries. Physical Review B, 2012, 86, .	3.2	98
46	Control of buckling in large micromembranes using engineered support structures. Journal of Micromechanics and Microengineering, 2012, 22, 065028.	2.6	38
47	Frequency-Selective Near-Field Radiative Heat Transfer between Photonic Crystal Slabs: A Computational Approach for Arbitrary Geometries and Materials. Physical Review Letters, 2011, 107, 114302.	7.8	148
48	Casimir microsphere diclusters and three-body effects in fluids. Physical Review A, 2011, 83, .	2.5	6
49	Designing evanescent optical interactions to control the expression of Casimir forces in optomechanical structures. Applied Physics Letters, 2011, 98, .	3.3	22
50	The Casimir effect in microstructured geometries. Nature Photonics, 2011, 5, 211-221.	31.4	387
51	Achieving a Strongly Temperature-Dependent Casimir Effect. Physical Review Letters, 2010, 105, 060401.	7.8	34