Liliana Arrachea

List of Publications by Year
in descending order

91 papers	2,067 citations	201575 27 h-index	265120 42 g-index
92 all docs	92 docs citations	92 times ranked	956 citing authors

#	Article	IF	Citations
1	Relation between scattering-matrix and Keldysh formalisms for quantum transport driven by time-periodic fields. Physical Review B, 2006, 74, .	1.1	151
2	Exact Solution of a Hubbard Chain with Bond-Charge Interaction. Physical Review Letters, 1994, 73, 2240-2243.	2.9	118
3	Dynamical energy transfer in ac-driven quantum systems. Physical Review B, 2014, 89, .	1.1	114
4	Green-function approach to transport phenomena in quantum pumps. Physical Review B, 2005, 72, .	1.1	108
5	Heat production and energy balance in nanoscale engines driven by time-dependent fields. Physical Review B, 2007, 75, .	1.1	78
6	Adiabatic response and quantum thermoelectrics for ac-driven quantum systems. Physical Review B, 2016, 93, .	1.1	76
7	Triplet superconductivity in quasi-one-dimensional systems. Physical Review B, 1999, 60, 15332-15338.	1.1	67
8	Dynamics of energy transport and entropy production in ac-driven quantum electron systems. Physical Review B, 2016, 94, .	1.1	60
9	Anomalous Flux Quantization in a Hubbard Ring with Correlated Hopping. Physical Review Letters, 1996, 76, 4396-4399.	2.9	52
10	Periodic Energy Transport and Entropy Production in Quantum Electronics. Entropy, 2016, 18, 419.	1.1	46
11	Current-induced switching in transport through anisotropic magnetic molecules. Physical Review B, 2012, 85, .	1.1	43
12	Vibrational cooling and thermoelectric response of nanoelectromechanical systems. Physical Review B, 2014, 90, .	1.1	43
13	Nonadiabatic features of electron pumping through a quantum dot in the Kondo regime. Physical Review B, 2008, 77, .	1.1	38
14	Thermal transport in one-dimensional spin heterostructures. Physical Review B, 2009, 80, .	1.1	38
15	Geometric properties of adiabatic quantum thermal machines. Physical Review B, 2020, 102, .	1.1	38
16	Microscopic model of a phononic refrigerator. Physical Review B, 2012, 86, .	1.1	37
17	Quantum Monte Carlo method for models of molecular nanodevices. Physical Review B, 2005, 72, .	1.1	36
18	Nonlocal Thermoelectricity in a Superconductorâ€“Topological-Insulatorâ€“Superconductor Junction in Contact with a Normal-Metal Probe: Evidence for Helical Edge States. Physical Review Letters, 2020, 124, 227701.	2.9	35

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19	Phase diagram of an extended Hubbard model with correlated hopping at half filling. Physical Review B, 1995, 51, 13774-13777.	1.1	33
20	Local and effective temperatures of quantum driven systems. Physical Review B, 2010, 81, .	1.1	31
21	Ground-state phase diagram of an extended Hubbard chain with correlated hopping at half-filling. Physical Review B, 1997, 55, 1173-1184.	1.1	30
22	Exact Greenâ€™s function renormalization approach to spectral properties of open quantum systems driven by harmonically time-dependent fields. Physical Review B, 2007, 75, .	1.1	30
23	Fractional Spin and Josephson Effect in Time-Reversal-Invariant Topological Superconductors. Physical Review Letters, 2017, 119, 046801.	2.9	30
24	Current oscillations in a metallic ring threaded by a time-dependent magnetic flux. Physical Review B, 2002, 66, .	1.1	29
25	Nanomagnet coupled to quantum spin Hall edge: An adiabatic quantum motor. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 74, 596-602.	1.3	28
26	dx2â^'y2superconductivity in a generalized Hubbard model. Physical Review B, 1999, 59, 1333-1338.	1.1	27
27	Symmetry and environment effects on rectification mechanisms in quantum pumps. Physical Review B, 2005, 72, .	1.1	27
28	Local temperatures and heat flow in quantum driven systems. Physical Review B, 2011, 83, .	1.1	27
29	dc response of a dissipative driven mesoscopic ring. Physical Review B, 2004, 70, .	1.1	25
30	Infinite-range quantum random Heisenberg magnet. Physical Review B, 2002, 65, .	1.1	23
31	Pairing correlations in a generalized Hubbard model for the cuprates. Physical Review B, 2000, 61, 9686-9689.	1.1	21
32	Transport phenomena in helical edge state interferometers: A Green's function approach. Physical Review B, 2013, 88, .	1.1	21
33	Probing the energy reactance with adiabatically driven quantum dots. Physical Review B, 2018, 97, .	1.1	21
34	Single-particle spectral function of a generalized Hubbard model: Metal-insulator transition. Physical Review B, 1995, 51, 14012-14019.	1.1	20
35	Heat Pumping in Nanomechanical Systems. Physical Review Letters, 2011, 106, 135504.	2.9	20
36	Enhanced thermoelectric response in the fractional quantum Hall effect. Physical Review B, 2018, 97, .	1.1	18

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37	Nonlocal thermoelectricity in a topological Andreev interferometer. Physical Review B, 2020, 102, .	1.1	18
38	Geometric Optimization of Nonequilibrium Adiabatic Thermal Machines and Implementation in a Qubit System. PRX Quantum, 2022, 3, .	3.5	18
39	Helical spin thermoelectrics controlled by a side-coupled magnetic quantum dot in the quantum spin Hall state. Physical Review B, 2018, 98, .	1.1	17
40	Itinerant ferromagnetism in the two-dimensionalt-tâ€²Hubbard model. Physical Review B, 2000, 62, 10033-10037.	1.1	16
41	Entangled end states with fractionalized spin projection in a time-reversal-invariant topological superconducting wire. Physical Review B, 2018, 98, .	1.1	16
42	Optimal Thermoelectricity with Quantum Spin Hall Edge States. Physical Review Letters, 2019, 123, 186801.	2.9	16
43	Heat current across a capacitively coupled double quantum dot. Physical Review B, 2020, 101, .	1.1	15
44	ac-dc voltage profile and four point impedance of a quantum driven system. Physical Review B, 2010, 82, .	1.1	14
45	Nonlinear charge and energy dynamics of an adiabatically driven interacting quantum dot. Physical Review B, 2017, 95, .	1.1	13
46	Catalog of Andreev spectra and Josephson effects in structures with time-reversal-invariant topological superconductor wires. Physical Review B, 2019, 99, .	1.1	13
47	From nonequilibrium Green's functions to quantum master equations for the density matrix and out-of-time-order correlators: Steady-state and adiabatic dynamics. Physical Review B, 2021, 104, .	1.1	13
48	Uâ^Jsynergy effect for high-Tcsuperconductors. Physical Review B, 2005, 71, .	1.1	12
49	Voltage profile and four-terminal resistance of an interacting quantum wire. Physical Review B, 2008, 77, .	1.1	12
50	Chiral heat transport in driven quantum Hall and quantum spin Hall edge states. Physical Review B, 2011, 84, .	1.1	12
51	Heat transport through quantum Hall edge states: Tunneling versus capacitive coupling to reservoirs. Physical Review B, 2013, 88, .	1.1	12
52	Proximity induced time-reversal topological superconductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:n films without phase tuning. Physical Review B, 2019, 99, .	1.1	12
53	dc four-point resistance of a double-barrier quantum pump. Physical Review B, 2009, 79, .	1.1	11
54	Model for electron spin resonance in STM noise. Physical Review B, 2014, 89, .	1.1	11

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55	Superconductivity in a generalized Hubbard model. Physica C: Superconductivity and Its Applications, 1997, 289, 70-76.	0.6	10
56	Nonlocal thermoelectric engines in hybrid topological Josephson junctions. Physical Review B, 2021, 103, .	1.1	10
57	Signatures of Jackiw-Rebbi resonance in the thermal conductance of topological Josephson junctions with magnetic islands. Physical Review B, 2021, 103, .	1.1	10
58	From the triangular to the kagome lattice: Following the footprints of the ordered state. Physical Review B, 2004, 69, .	1.1	9
59	Multifloquet to Single Electronic Channel Transition in the Transport Properties of a Resistive 1D Driven Disordered Ring. Physical Review Letters, 2007, 99, 266601.	2.9	9
60	Study of the metal-insulator transition and superconducting correlations of a generalized Hubbard model. Physica C: Superconductivity and Its Applications, 1996, 268, 233-240.	0.6	8
61	Thermoelectricity in Quantum Hall Corbino Structures. Physical Review Applied, 2020, 14, .	1.5	8
62	Tomography of Zero-Energy End Modes in Topological Superconducting Wires. Physical Review Letters, 2020, 125, 256801.	2.9	8
63	Pumping charge with ac magnetic fluxes and the dynamical breakdown of Onsager symmetry. Physical Review B, 2013, 87, .	1.1	7
64	Time resolved heat exchange in driven quantum systems. Journal of Physics: Conference Series, 2014, 568, 052017.	0.3	7
65	Anomalous Joule law in the adiabatic dynamics of a quantum dot in contact with normal-metal and superconducting reservoirs. Physical Review B, 2018, 98, .	1.1	6
66	Work exchange, geometric magnetization, and fluctuation-dissipation relations in a quantum dot under adiabatic magnetoelectric driving. Physical Review B, 2019, 99, .	1.1	6
67	Does long-range antiferromagnetism help or inhibit superconductivity?. Physica C: Superconductivity and Its Applications, 1998, 303, 141-150.	0.6	5
68	Symmetries and transport properties of an electronic quantum pump with biharmonic driving. Physica B: Condensed Matter, 2007, 398, 450-454.	1.3	5
69	Conductance of a quantum dot in the Kondo regime connected to dirty wires. Physical Review B, 2012, 86, .	1.1	5
70	Mesoscopic features in the transport properties of a Kondo-correlated quantum dot in a magnetic field. Journal of Physics Condensed Matter, 2014, 26, 035602.	0.7	5
71	Detailed study of nonlinear cooling with two-terminal configurations of topological edge states. Physical Review B, 2020, 102, .	1.1	5
72	Conductance distributions of one-dimensional disordered wires at finite temperature and bias voltage. Physical Review B, 2006, 74, .	1.1	4

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73	Stationary transport in mesoscopic hybrid structures with contacts to superconducting and normal wires: A Greenâ€™s function approach for multiterminal setups. Physical Review B, 2009, 79, .	1.1	4
74	Chiral-mediated entanglement in an Aharonov-Bohm ring. Physical Review B, 2012, 85, .	1.1	4
75	Conductance oscillations in a mesoscopic ring threaded by a harmonically time-dependent magnetic flux. Physica B: Condensed Matter, 2012, 407, 3256-3258.	1.3	4
76	Transport in quantum spin Hall edges in contact to a quantum dot. Physical Review B, 2016, 94, .	1.1	4
77	Relation between local temperature gradients and the direction of heat flow in quantum driven systems. Physica B: Condensed Matter, 2012, 407, 3172-3174.	1.3	3
78	Nonequilibrium Green's functions in the study of heat transport of driven nanomechanical systems. Journal of Physics: Conference Series, 2013, 427, 012012.	0.3	3
79	Unveiling a crystalline topological insulator in a Weyl semimetal with time-reversal symmetry. Physical Review B, 2014, 90, .	1.1	3
80	Anderson-Mott transition in a disordered Hubbard chain with correlated hopping. Physical Review B, 2017, 96, .	1.1	3
81	Thermoelectric cooling properties of a quantum Hall Corbino device. Physical Review B, 2021, 103, .	1.1	3
82	All-electric electron spin resonance studied by means of Floquet quantum master equations. Physical Review B, 2021, 104, .	1.1	3
83	Electronic properties of a generalized Hubbard model at half-filling. Physica B: Condensed Matter, 1996, 223-224, 605-607.	1.3	2
84	Four-terminal resistance of an interacting quantum wire with weakly invasive contacts. Journal of Physics Condensed Matter, 2011, 23, 475601.	0.7	2
85	Reprint of : Nanomagnet coupled to quantum spin Hall edge: An adiabatic quantum motor. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 82, 247-253.	1.3	2
86	Pairing correlations in electron-doped cuprates. Physical Review B, 2001, 64, .	1.1	1
87	Influence of finite Hund rules and charge transfer on properties of Haldane systems. Physical Review B, 1999, 59, 9916-9922.	1.1	0
88	Quantum magnets with anisotropic infinite range random interactions. Biophysical Chemistry, 2005, 115, 135-138.	1.5	0
89	Effect of temperature and bias voltage on the conductance distribution of 1D-disordered wires with dirty contacts. Physica B: Condensed Matter, 2007, 398, 376-379.	1.3	0
90	DC voltage profile of a 1D pumped wire with two dynamical and one static impurities. Physica B: Condensed Matter, 2009, 404, 2802-2804.	1.3	0

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91	Effective tunneling processes in an interferometer of helical edge states with an antidot. Journal of Physics: Conference Series, 2014, 568, 052027.	0.3	0