Alvaro Martin Rodero

List of Publications by Year
in descending order

84 papers	4,695 citations	94433 37 h-index	91884 69 g-index
84 all docs	84 docs citations	84 times ranked	2060 citing authors

#	Article	IF	Citations
1	Transient dynamics of a magnetic impurity coupled to superconducting electrodes: Exact numerics versus perturbation theory. Physical Review B, 2021, 104, .	3.2	5
2	Buildup of vibron-mediated electron correlations in molecular junctions. Physical Review B, 2019, 99, .	3.2	9
3	Transient dynamics in interacting nanojunctions within self-consistent perturbation theory. New Journal of Physics, 2018, 20, 083039.	2.9	13
4	Analysis of universality in transient dynamics of coherent electronic transport. Fortschritte Der Physik, 2017, 65, 1600062.	4.4	8
5	Quench dynamics in superconducting nanojunctions: Metastability and dynamical Yang-Lee zeros. Physical Review B, 2017, 96, .	3.2	29
6	Andreev Bound States Formation and Quasiparticle Trapping in Quench Dynamics Revealed by Time-Dependent Counting Statistics. Physical Review Letters, 2016, 117, 267701.	7.8	28
7	Transient dynamics and waiting time distribution of molecular junctions in the polaronic regime. Physical Review B, 2015, 92, .	3.2	56
8	Dressed tunneling approximation for electronic transport through molecular transistors. Physical Review B, 2014, 89, .	3.2	29
9	Temperature dependence of Andreev spectra in a superconducting carbon nanotube quantum dot. Physical Review B, 2014, 89, .	3.2	53
10	Long transient dynamics in the Anderson-Holstein model out of equilibrium. Physical Review B, 2013, 87, .	3.2	40
11	The Andreev states of a superconducting quantum dot: mean field versus exact numerical results. Journal of Physics Condensed Matter, 2012, 24, 385303.	1.8	33
12	Josephson and Andreev transport through quantum dots. Advances in Physics, 2011, 60, 899-958.	14.4	227
13	Nonequilibrium transport in molecular junctions with strong electron-phonon interactions. Physical Review B, 2010, 82, .	3.2	17
14	Long-range crossed Andreev reflections in high-temperature superconductors. Physical Review B, 2009, 79, .	3.2	15
15	Equation of motion approach to the Anderson-Holstein Hamiltonian. Physical Review B, 2009, 79, .	3.2	22
16	Microscopic theory of the proximity effect in superconductor-graphene nanostructures. Physical Review B, 2008, 77, .	3.2	52
17	Nonadiabatic features of electron pumping through a quantum dot in the Kondo regime. Physical Review B, 2008, 77, .	3.2	38
18	Interpolative approach for electron-electron and electron-phonon interactions: From the Kondo to the polaronic regime. Physical Review B, 2008, 78, .	3.2	27

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19	Josephson Effect and Magnetic Interactions in Double Quantum Dots. Mathematics in Industry, 2008, , 426-430.	0.3	0
20	Josephson effect through a quantum dot array. Physical Review B, 2007, 76, .	3.2	25
21	Even-Odd Effect in Andreev Transport through a Carbon Nanotube Quantum Dot. Physical Review Letters, 2007, 99, 126602.	7.8	127
22	Structure of gold monoatomic wires connected to two electrodes. Physica B: Condensed Matter, 2007, 398, 309-312.	2.7	8
23	Entangled Andreev pairs and collective excitations in nanoscale superconductors. Nature Physics, 2007, 3, 455-459.	16.7	107
24	Interplay between Josephson effect and magnetic interactions in double quantum dots. Physical Review B, 2006, 74, .	3.2	42
25	Universal features of electron-phonon interactions in atomic wires. Physical Review B, 2006, 73, .	3.2	100
26	Inverse proximity effect in superconductor-ferromagnet structures: From the ballistic to the diffusive limit. Physical Review B, 2005, 72, .	3.2	72
27	Dynamical Coulomb Blockade of Multiple Andreev Reflections. Physical Review Letters, 2005, 95, 056804.	7.8	11
28	Distribution of conduction channels in nanoscale contacts: Evolution towards the diffusive limit. Europhysics Letters, 2005, 70, 663-669.	2.0	19
29	Different wavelength oscillations in the conductance of5dmetal atomic chains. Physical Review B, 2004, 70, .	3.2	44
30	Josephson current through a correlated quantum level:â€ƒAndreev states andÏ€junction behavior. Physical Review B, 2003, 68, .	3.2	184
31	Nonequilibrium Dynamics of Andreev States in the Kondo Regime. Physical Review Letters, 2003, 91, 266802.	7.8	40
32	Quantum Noise and Mutiple Andreev Reflections in Superconducting Contacts. , 2003, , 51-71.		0
33	Subharmonic Shapiro Steps and Assisted Tunneling in Superconducting Point Contacts. Physical Review Letters, 2002, 88, 157001.	7.8	45
34	Recursion method for nonhomogeneous superconductors: Proximity effect in superconductor-ferromagnet nanostructures. Physical Review B, 2001, 64, .	3.2	17
35	Kondo effect in normal-superconductor quantum dots. Physical Review B, 2001, 63, .	3.2	106
36	Direct Link between Coulomb Blockade and Shot Noise in a Quantum-Coherent Structure. Physical Review Letters, 2001, 87, 046802.	7.8	56

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37	Local-density approach and quasiparticle levels for generalized Hubbard Hamiltonians. Physical Review B, 2000, 62, 4309-4331.	3.2	57
38	Shot Noise and Coherent Multiple Charge Transfer in Superconducting Quantum Point Contacts. Physical Review Letters, 1999, 82, 4086-4089.	7.8	91
39	General transport properties of superconducting quantum point contacts: a Green functions approach. Superlattices and Microstructures, 1999, 25, 925-936.	3.1	14
40	Transport in Multilevel Quantum Dots: From the Kondo Effect to the Coulomb Blockade Regime. Physical Review Letters, 1999, 83, 600-603.	7.8	68
41	Interpolative Method for Transport Properties of Quantum Dots in the Kondo Regime. , 1999, , 27-34.		2
42	The signature of chemical valence in the electrical conduction through a single-atom contact. Nature, 1998, 394, 154-157.	27.8	597
43	Electron Resonances in Sharp Tips and Their Role in Tunneling Spectroscopy. Physical Review Letters, 1998, 80, 357-360.	7.8	94
44	Evolution of Conducting Channels in Metallic Atomic Contacts under Elastic Deformation. Physical Review Letters, 1998, 81, 2990-2993.	7.8	154
45	Microscopic Origin of Conducting Channels in Metallic Atomic-Size Contacts. Physical Review Letters, 1998, 80, 1066-1069.	7.8	245
46	Resonant tunneling through a small quantum dot coupled to superconducting leads. Physical Review B, 1997, 55, R6137-R6140.	3.2	147
47	Conductance quantization and electron resonances in sharp tips and atomic-size contacts. Physical Review B, 1997, 56, 10369-10372.	3.2	50
48	FORMATION OF METAL-SEMICONDUCTOR BARRIERS FOR GaAs-INTERFACES IN THE LOW METAL COVERAGE LIMIT. Progress in Surface Science, 1997, 54, 229-240.	8.3	1
49	Hamiltonian approach to the transport properties of superconducting quantum point contacts. Physical Review B, 1996, 54, 7366-7379.	3.2	438
50	Microscopic theory of the phase-dependent linear conductance in highly transmissive superconducting quantum point contacts. Physica B: Condensed Matter, 1996, 218, 126-129.	2.7	8
51	Metal-insulator transition for K on GaAs(100)-As rich surfaces. Applied Surface Science, 1996, 104-105, 248-252.	6.1	5
52	The phase-dependent linear conductance of a superconducting quantum point contact. Journal of Physics Condensed Matter, 1996, 8, 449-456.	1.8	5
53	Thermal noise in superconducting quantum point contacts. Physical Review B, 1996, 53, R8891-R8894.	3.2	70
54	Quasi-one-dimensional structures and metallization for the deposition of K on GaAs(100) As-rich surfaces. Physical Review B, 1995, 52, 16345-16348.	3.2	8

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55	Self-consistent theory of superconducting mesoscopic weak links. Physical Review B, 1995, 51, 3743-3753.	3.2	67
56	Photoinduced Currents in Normal and Superconducting Micro-Junctions. , 1995, , 281-294.		0
57	Microscopic theory of Josephson mesoscopic constrictions. Physical Review Letters, 1994, 72, 554-557.	7.8	75
58	Self-consistent theory for the DC Josephson effect in a superconducting STM junction. Surface Science, 1994, 307-309, 973-977.	1.9	3
59	Electron correlation resonances in the transport through a single quantum level. Physical Review Letters, 1993, 71, 2991-2994.	7.8	181
60	Second-order self-energy of the Hubbard Hamiltonian: Absence of quasiparticle excitations near half-filling. Physical Review B, 1993, 48, 13654-13660.	3.2	13
61	Solution for theU-negative Hubbard superconductor including second-order correlation effects. Physical Review B, 1992, 45, 13008-13016.	3.2	32
62	An ab initio molecular orbital theory for chemisorption: H on metals. Surface Science, 1991, 251-252, 861-865.	1.9	1
63	Hubbard Hamiltonian for high-Tcsuperconductors: The antiferromagnetic-paramagnetic transition. Physical Review B, 1991, 44, 415-418.	3.2	5
64	Electrochemical-potential variations across a constriction. Physical Review B, 1990, 41, 8553-8556.	3.2	55
65	Molecular orbital theory for chemisorption and physisorption: The case of He on metals. Physical Review B, 1989, 39, 5684-5693.	3.2	58
66	Interaction of helium with metal surfaces: A first-principle tight-binding approach. Surface Science, 1989, 211-212, 256-262.	1.9	0
67	Molecular orbital theory and tunnelling currents. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1988, 10, 303-311.	0.4	44
68	Contact resistance in the scanning tunneling microscope at very small distances. Physical Review B, 1988, 38, 10113-10115.	3.2	129
69	Tight-binding theory of tunneling current with chemisorbed species. Physical Review B, 1988, 38, 10047-10050.	3.2	29
70	Raman scattering from atomic adsorbates. Physica Scripta, 1988, 38, 180-187.	2.5	1
71	Contact resistance and saturation effects in the scanning tunnelling microscope: the resistance quantum unit. Journal of Microscopy, 1988, 152, 317-323.	1.8	20
72	Indirect interactions between CO molecules on transition-metal surfaces and the interpretation of thermal desorption experiments. Journal of Physics C: Solid State Physics, 1987, 20, 3381-3389.	1.5	12

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73	Interpolative solution for the Anderson model of an impurity. Physical Review B, 1987, 36, 6149-6151.	3.2	15
74	Interpolative solution for the periodic Anderson model of mixed-valence compounds. Physical Review B, 1986, 33, 1814-1822.	3.2	41
75	Electronic properties of Si(111) semiconductor surfaces. Surface Science, 1985, 162, 156-162.	1.9	2
76	Quasiparticle spectral density of low-dimensional Hubbard Hamiltonians. Physical Review B, 1984, 29, 476-478.	3.2	16
77	General solution of the periodic Anderson Hamiltonian in one dimension atT=0K: Symmetric and nonsymmetric cases. Physical Review B, 1984, 30, 7299-7301.	3.2	3
78	Dimensional and geometrical effects on the electronic structure of polycyclic hydrocarbons. International Journal of Quantum Chemistry, 1984, 26, 783-791.	2.0	5
79	Electronic structure and conformation of ethene when adsorbed on transition and noble metals. Surface Science, 1984, 140, 400-414.	1.9	9
80	Correlation effects for H chemisorbed on transition metals. Surface Science, 1983, 128, 237-248.	1.9	13
81	Simple solution to the Newns-Anderson Hamiltonian of chemisorption. Physical Review B, 1983, 28, 6640-6646.	3.2	15
82	A new solution to the Anderson-Newns Hamiltonian of chemisorption. Solid State Communications, 1982, 44, 911-914.	1.9	82
83	Shortâ€Range Effects in Germaniumâ€Silicon. Physica Status Solidi (B): Basic Research, 1980, 99, 501-505.	1.5	0
84	Surface States in the (111) and (&1mcar;1&1mcar;1&1mcar;) Faces of Zincblende Compounds. Physica Status Solidi (B): Basic Research, 1978, 88, 591-597.	1.5	11