David Sanchez

List of Publications by Year
in descending order

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110	3,204	156536	190340
papers	citations	32	53
		h-index	g-index

114	114	114	1790
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Geometry effects in topologically confined bilayer graphene loops. New Journal of Physics, 2022, 24, 013001.	1.2	3
2	Beating Carnot efficiency with periodically driven chiral conductors. Nature Communications, 2022, 13, 2512.	5.8	5
3	Scattering of topological kink-antikink states in bilayer graphene structures. Physical Review B, 2021, 104, .	1.1	6
4	Capturing the diversity of multilingual societies. Physical Review Research, 2021, 3, .	1.3	5
5	Spin-Polarized Electron Transmission in DNA-Like Systems. Biomolecules, 2020, 10, 49.	1.8	10
6	Quantum Transport in Mesoscopic Systems. Entropy, 2020, 22, 977.	1.1	3
7	Andreev-Coulomb Drag in Coupled Quantum Dots. Physical Review Letters, 2020, 125, 247701.	2.9	9
8	Fluctuation-driven Coulomb drag in interacting quantum dot systems. Physical Review B, 2019, 100, .	1.1	10
9	Thermoelectric transport through interacting quantum dots in graphene. European Physical Journal: Special Topics, 2019, 227, 1969-1979.	1.2	4
10	Nonlinear chiral refrigerators. Physical Review B, 2019, 99, .	1.1	15
11	Nanowires: A route to efficient thermoelectric devices. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 113, 213-225.	1.3	38
12	Engineering drag currents in Coulomb coupled quantum dots. New Journal of Physics, 2018, 20, 023038.	1.2	11
13	Probing the energy reactance with adiabatically driven quantum dots. Physical Review B, 2018, 97, .	1.1	21
14	How to distinguish between interacting and noninteracting molecules in tunnel junctions. Nanoscale, 2018, 10, 3904-3910.	2.8	4
15	Topologically Nontrivial Valley States in Bilayer Graphene Quantum Point Contacts. Physical Review Letters, 2018, 121, 257702.	2.9	39
16	Nonlinear heat transport in ferromagnetic-quantum dot-superconducting systems. Journal of Physics: Conference Series, 2018, 969, 012139.	0.3	1
17	Heat current through an artificial Kondo impurity beyond linear response. Journal of Physics: Conference Series, 2018, 969, 012144.	0.3	2
18	Mapping the Americanization of English in space and time. PLoS ONE, 2018, 13, e0197741.	1.1	64

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19	Reversal of Thermoelectric Current in Tubular Nanowires. Physical Review Letters, 2017, 119, 036804.	2.9	25
20	Fate of the spin- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mfrac><mml:mn>1</mml:mn><mml:mn>2</mml:mn></mml:mfrac></mml Kondo effect in the presence of temperature gradients. Physical Review B, 2017, 96, .	1.1	6
21	Nonlinear electric and thermoelectric Andreev transport through a hybrid quantum dot coupled to ferromagnetic and superconducting leads. European Physical Journal B, 2017, 90, 1.	0.6	4
22	Dialectometric analysis of language variation in Twitter. , 2017, , .		26
23	Periodic Energy Transport and Entropy Production in Quantum Electronics. Entropy, 2016, 18, 419.	1.1	46
24	A hybrid superconducting quantum dot acting as an efficient charge and spin Seebeck diode. New Journal of Physics, 2016, 18, 093024.	1.2	16
25	Nonlinear phenomena in quantum thermoelectrics and heat. Comptes Rendus Physique, 2016, 17, 1060-1071.	0.3	55
26	Interplay between resonant tunneling and spin precession oscillations in all-electric all-semiconductor spin transistors. Physical Review B, 2016, 94, .	1.1	6
27	Dynamics of energy transport and entropy production in ac-driven quantum electron systems. Physical Review B, 2016, 94, .	1.1	60
28	Cotunneling Drag Effect in Coulomb-Coupled Quantum Dots. Physical Review Letters, 2016, 117, 066602.	2.9	43
29	Large thermoelectric power and figure of merit in a ferromagneticâ€“quantum dotâ€“superconducting device. Physical Review B, 2016, 94, .	1.1	39
30	Interactions and thermoelectric effects in a parallel-coupled double quantum dot. Physical Review B, 2016, 93, .	1.1	37
31	Coulomb-blockade effect in nonlinear mesoscopic capacitors. Physical Review B, 2016, 94, .	1.1	12
32	Reprint of : Quantum point contacts as heat engines. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 82, 310-313.	1.3	2
33	Heat asymmetries in nanoscale conductors: The role of decoherence and inelasticity. Physical Review B, 2015, 91, .	1.1	17
34	Time-dependent current of interacting quantum capacitors subjected to large amplitude pulses. Journal of Physics: Conference Series, 2015, 647, 012049.	0.3	2
35	Nonlinear Heat Conduction in Coulomb-blockaded Quantum Dots. Materials Today: Proceedings, 2015, 2, 483-490.	0.9	13
36	Cross thermoelectric coupling in normal-superconductor quantum dots. Physical Review B, 2015, 91, .	1.1	24

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37	Seebeck effects in two-dimensional spin transistors. Physical Review B, 2015, 91, .	1.1	7
38	Quantum point contacts as heat engines. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 74, 447-450.	1.3	4
39	Thermopower of a graphene monolayer with inhomogeneous spin-orbit interaction. , 2015, , .		0
40	Focus on thermoelectric effects in nanostructures. New Journal of Physics, 2014, 16, 110201.	1.2	20
41	Orbital caloritronic transport in strongly interacting quantum dots. New Journal of Physics, 2014, 16, 015003.	1.2	10
42	Thermoelectric effects in quantum Hall systems beyond linear response. Journal of Physics: Conference Series, 2014, 568, 052016.	0.3	8
43	Experimental verification of reciprocity relations in quantum thermoelectric transport. Physical Review B, 2014, 90, .	1.1	34
44	Spin and charge thermopower of resonant tunneling diodes. Applied Physics Letters, 2014, 104, .	1.5	6
45	Strongly nonlinear thermovoltage and heat dissipation in interacting quantum dots. Physical Review B, 2014, 90, .	1.1	60
46	Thermoelectric effects in graphene with local spin-orbit interaction. Physical Review B, 2014, 89, .	1.1	28
47	Dynamical energy transfer in ac-driven quantum systems. Physical Review B, 2014, 89, .	1.1	114
48	Nonlinear spin-thermoelectric transport in two-dimensional topological insulators. Physical Review B, 2014, 90, .	1.1	30
49	Crowdsourcing Dialect Characterization through Twitter. PLoS ONE, 2014, 9, e112074.	1.1	63
50	Time resolved heat exchange in driven quantum systems. Journal of Physics: Conference Series, 2014, 568, 052017.	0.3	7
51	Proposal for a local heating driven spin current generator. Applied Physics Letters, 2013, 103, .	1.5	7
52	Scattering Theory of Nonlinear Thermoelectric Transport. Physical Review Letters, 2013, 110, 026804.	2.9	112
53	Nonlinear heat transport in mesoscopic conductors: Rectification, Peltier effect, and Wiedemann-Franz law. Physical Review B, 2013, 88, .	1.1	74
54	Spin-current noise from fluctuation relations. , 2013, , .		1

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55	Nonlinear thermovoltage and thermocurrent in quantum dots. New Journal of Physics, 2013, 15, 105011.	1.2	104
56	Magnetic-field asymmetry of nonlinear thermoelectric and heat transport. New Journal of Physics, 2013, 15, 105012.	1.2	17
57	Dynamic thermoelectric and heat transport in mesoscopic capacitors. Physical Review B, 2013, 88, .	1.1	34
58	Noise and fluctuation relations of a spin diode. Nanoscale Research Letters, 2013, 8, 246.	3.1	1
59	Thermally driven ballistic rectifier. Physical Review B, 2012, 85, .	1.1	30
60	Fluctuation Relations for Spintronics. Physical Review Letters, 2012, 108, 246603.	2.9	27
61	Asymmetric charge susceptibility in a mesoscopic interferometer. , 2011, , .		0
62	Thermoelectric transport of mesoscopic conductors coupled to voltage and thermal probes. Physical Review B, 2011, 84, .	1.1	96
63	Kramers polarization in strongly correlated carbon nanotube quantum dots. Physical Review B, 2011, 83, .	1.1	13
64	Kondo effect in spin-orbit mesoscopic interferometers. Physical Review B, 2010, 81, .	1.1	17
65	Magnetoasymmetric transport in a mesoscopic interferometer: From the weak to the strong coupling regime. Physical Review B, 2010, 81, .	1.1	22
66	Mesoscopic Coulomb Drag, Broken Detailed Balance, and Fluctuation Relations. Physical Review Letters, 2010, 104, 076801.	2.9	99
67	Multichannel effects in Rashba quantum wires. Physical Review B, 2010, 81, .	1.1	25
68	Magnetoasymmetric current fluctuations of single-electron tunneling. Physical Review B, 2009, 79, .	1.1	20
69	Localized magnetic states in Rashba dots. Physical Review B, 2009, 79, .	1.1	18
70	Magnetoasymmetric noise in an Aharanov-Bohm interferometer. , 2009, , .		1
71	Magnetization fluctuations in mesoscopic conductors out of equilibrium. , 2009, , .		0
72	Spin polarized current from localized Rashba interaction in a quantum wire. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2123-2127.	0.8	5

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73	Local spin polarization in a quantum wire induced by the Rashba interaction. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1479-1480.	1.3	1
74	Strongly modulated transmission of a spin-split quantum wire with local Rashba interaction. Physical Review B, 2008, 77, .	1.1	46
75	Validity and Breakdown of Onsager Symmetry in Mesoscopic Conductors Interacting with Environments. Physical Review Letters, 2008, 100, 036806.	2.9	23
76	Spintronic Transport in IIâ€“VI Magnetic Semiconductor Resonant Tunneling Devices. Mathematics in Industry, 2008, , 454-459.	0.1	0
77	Resonant tunneling diode with spin polarized injector. Applied Physics Letters, 2007, 90, 122109.	1.5	23
78	From Coulomb blockade to the Kondo regime in a Rashba dot. Physical Review B, 2007, 76, .	1.1	45
79	The Fano-Rashba effect. Journal of Physics: Conference Series, 2007, 61, 1037-1041.	0.3	5
80	Evanescent states in quantum wires with Rashba spin-orbit coupling. Physical Review B, 2007, 76, .	1.1	16
81	Spin-Polarized Transport in IIâ€“VI Magnetic Resonant-Tunneling Devices. IEEE Transactions on Electron Devices, 2007, 54, 984-990.	1.6	21
82	Fano-Rashba effect in a quantum wire. Physical Review B, 2006, 74, .	1.1	126
83	Magnetic Field Symmetry and Phase Rigidity of the Nonlinear Conductance in a Ring. Physical Review Letters, 2006, 96, 126801.	2.9	82
84	Spintronic Transport and Kondo Effect in Quantum Dots. Journal of Superconductivity and Novel Magnetism, 2005, 18, 251-260.	0.5	8
85	Interaction-induced magnetic field asymmetry of nonlinear mesoscopic electrical transport. International Journal of Quantum Chemistry, 2005, 105, 906-913.	1.0	24
86	Three-terminal transport through a quantum dot in the Kondo regime: Conductance, dephasing, and current-current correlations. Physical Review B, 2005, 71, .	1.1	46
87	Chirality in Coulomb-blockaded quantum dots. Physical Review B, 2005, 72, .	1.1	21
88	Probing spin and orbital Kondo effects with a mesoscopic interferometer. Physical Review B, 2005, 71, .	1.1	96
89	Rashba interaction in quantum wires with in-plane magnetic fields. Physical Review B, 2005, 72, .	1.1	58
90	Non-linear spin transport in magnetic semiconductor superlattices. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1547-E1549.	1.0	0

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91	Kondo Effect in a Quantum Dot Coupled to Ferromagnetic Leads: A Numerical Renormalization Group Analysis. Physical Review Letters, 2004, 92, 056601.	2.9	167
92	Magnetic-Field Asymmetry of Nonlinear Mesoscopic Transport. Physical Review Letters, 2004, 93, 106802.	2.9	144
93	Nonequilibrium Spintronic Transport through an Artificial Kondo Impurity: Conductance, Magnetoresistance, and Shot Noise. Physical Review Letters, 2003, 90, 116602.	2.9	152
94	Spin-polarized current oscillations in diluted magnetic semiconductor multiple quantum wells. Physical Review B, 2003, 67, .	1.1	23
95	Dynamical instability of electric-field domains in ac-driven superlattices. Physical Review B, 2003, 67, .	1.1	14
96	Comment on â€œMesoscopic Rectifiers Based on Ballistic Transportâ€• Physical Review Letters, 2003, 90, 119701; author reply 119702.	2.9	27
97	Andreev drag effect in ferromagnetic-normal-superconducting systems. Physical Review B, 2003, 68, .	1.1	48
98	Spin Transport in Diluted Magnetic Semiconductor Superlattices. , 2003, , 167-181.		1
99	Photo-assisted dynamical transport in multiple quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 319-322.	1.3	1
100	Canted phase in artificial molecules. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 904-907.	1.3	0
101	Non-linear spin transport in magnetic semiconductor multiple quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 525-528.	1.3	3
102	Temperature-induced breakdown of stationary electric field domains in superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 798-801.	1.3	1
103	Canted phase in double quantum dots. Physical Review B, 2001, 64, .	1.1	10
104	Temperature dependence of current self-oscillations and electric-field domains in sequential-tunneling doped superlattices. Physical Review B, 2001, 64, .	1.1	17
105	Quasiperiodic current and strange attractors in ac-driven superlattices. Physical Review B, 2001, 63, .	1.1	27
106	Field-domain spintronics in magnetic semiconductor multiple quantum wells. Physical Review B, 2001, 65, .	1.1	31
107	Dynamics of electric field domain walls in semiconductor superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 299-301.	1.3	2
108	Microscopic derivation of transport coefficients and boundary conditions in discrete drift-diffusion models of weakly coupled superlattices. Physical Review B, 2000, 62, 2786-2796.	1.1	43

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109	Current self-oscillations, spikes, and crossover between charge monopole and dipole waves in semiconductor superlattices. Physical Review B, 1999, 60, 4489-4492.	1.1	42
110	Trivial and topological bound states in bilayer graphene quantum dots and rings. Physica Status Solidi (B): Basic Research, 0, , .	0.7	0