

Cristian Urbina

List of Publications by Year in descending order

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93
papers

10,170
citations

53660

45
h-index

53109

85
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96
all docs

96
docs citations

96
times ranked

4788
citing authors

#	ARTICLE	IF	CITATIONS
1	Manipulating the Quantum State of an Electrical Circuit. <i>Science</i> , 2002, 296, 886-889.	6.0	1,425
2	Rabi Oscillations in a Large Josephson-Junction Qubit. <i>Physical Review Letters</i> , 2002, 89, 117901.	2.9	862
3	The signature of chemical valence in the electrical conduction through a single-atom contact. <i>Nature</i> , 1998, 394, 154-157.	13.7	597
4	Electron transport through a metal-molecule-metal junction. <i>Physical Review B</i> , 1999, 59, 12505-12513.	1.1	549
5	Frequency-locked turnstile device for single electrons. <i>Physical Review Letters</i> , 1990, 64, 2691-2694.	2.9	541
6	Effect of the electromagnetic environment on the Coulomb blockade in ultrasmall tunnel junctions. <i>Physical Review Letters</i> , 1990, 64, 1824-1827.	2.9	477
7	Single-Electron Pump Based on Charging Effects. <i>Europhysics Letters</i> , 1992, 17, 249-254.	0.7	469
8	Hot-electron effects in metals. <i>Physical Review B</i> , 1994, 49, 5942-5955.	1.1	394
9	Conduction Channel Transmissions of Atomic-Size Aluminum Contacts. <i>Physical Review Letters</i> , 1997, 78, 3535-3538.	2.9	382
10	Adjustable nanofabricated atomic size contacts. <i>Review of Scientific Instruments</i> , 1996, 67, 108-111.	0.6	295
11	Decoherence of a superconducting qubit due to bias noise. <i>Physical Review B</i> , 2003, 67, .	1.1	242
12	Direct observation of macroscopic charge quantization. <i>European Physical Journal B</i> , 1991, 85, 327-332.	0.6	241
13	Single-electron transfer in metallic nanostructures. <i>Nature</i> , 1992, 360, 547-553.	13.7	201
14	Measurement of the even-odd free-energy difference of an isolated superconductor. <i>Physical Review Letters</i> , 1993, 70, 994-997.	2.9	198
15	Low-frequency noise in dc superconducting quantum interference devices below 1 K. <i>Applied Physics Letters</i> , 1987, 50, 772-774.	1.5	174
16	Single electron pump fabricated with ultrasmall normal tunnel junctions. <i>Physica B: Condensed Matter</i> , 1991, 169, 573-574.	1.3	168
17	Coherent manipulation of Andreev states in superconducting atomic contacts. <i>Science</i> , 2015, 349, 1199-1202.	6.0	161
18	Phase Controlled Superconducting Proximity Effect Probed by Tunneling Spectroscopy. <i>Physical Review Letters</i> , 2008, 100, 197002.	2.9	153

#	ARTICLE	IF	CITATIONS
19	Evidence for quadrupolar glass phases in solid hydrogen at reduced ortho concentrations. <i>Physical Review B</i> , 1978, 17, 5016-5024.	1.1	149
20	Exciting Andreev pairs in a superconducting atomic contact. <i>Nature</i> , 2013, 499, 312-315.	13.7	136
21	Evidence for Saturation of Channel Transmission from Conductance Fluctuations in Atomic-Size Point Contacts. <i>Physical Review Letters</i> , 1999, 82, 1530-1533.	2.9	124
22	Multiple-Charge-Quanta Shot Noise in Superconducting Atomic Contacts. <i>Physical Review Letters</i> , 2001, 86, 4104-4107.	2.9	113
23	Observation of the a.c. Josephson Effect Inside Copper-Oxide-Based Superconductors. <i>Europhysics Letters</i> , 1987, 3, 1237-1242.	0.7	108
24	Measurement of the Current-Phase Relation of Superconducting Atomic Contacts. <i>Physical Review Letters</i> , 2007, 99, 127005.	2.9	104
25	Strong Tunneling in the Single-Electron Transistor. <i>Physical Review Letters</i> , 1997, 79, 1349-1352.	2.9	97
26	Effect of a Transmission Line Resonator on a Small Capacitance Tunnel Junction. <i>Physical Review Letters</i> , 1994, 73, 3455-3458.	2.9	96
27	Observation of the Temporal Decoupling Effect on the Macroscopic Quantum Tunneling of a Josephson Junction. <i>Physica Scripta</i> , 1989, T29, 121-124.	1.2	92
28	Proximity Effect and Multiple Andreev Reflections in Gold Atomic Contacts. <i>Physical Review Letters</i> , 2001, 86, 284-287.	2.9	87
29	Two-electron quantization of the charge on a superconductor. <i>Nature</i> , 1993, 365, 422-424.	13.7	84
30	Spin-Orbit Splitting of Andreev States Revealed by Microwave Spectroscopy. <i>Physical Review X</i> , 2019, 9, .	2.8	84
31	Evidence for Long-Lived Quasiparticles Trapped in Superconducting Point Contacts. <i>Physical Review Letters</i> , 2011, 106, 257003.	2.9	78
32	Single electron tunneling rates in multijunction circuits. <i>European Physical Journal B</i> , 1991, 84, 143-155.	0.6	73
33	Supercurrent in Atomic Point Contacts and Andreev States. <i>Physical Review Letters</i> , 2000, 85, 170-173.	2.9	72
34	Single Cooper pair pump. <i>European Physical Journal B</i> , 1991, 85, 349-355.	0.6	70
35	Conductance quantization in metals: The influence of subband formation on the relative stability of specific contact diameters. <i>Physical Review B</i> , 1997, 56, 12566-12572.	1.1	59
36	Direct Link between Coulomb Blockade and Shot Noise in a Quantum-Coherent Structure. <i>Physical Review Letters</i> , 2001, 87, 046802.	2.9	56

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37	Flicker ($1/f$) noise in the critical current of Josephson junctions at 0.09–4.2K. Applied Physics Letters, 2004, 85, 5296-5298.	1.5	56
38	Hot-electron limitation to the sensitivity of the dc superconducting quantum interference device. Applied Physics Letters, 1989, 54, 2599-2601.	1.5	53
39	Escape oscillations of a Josephson junction switching out of the zero-voltage state. Physical Review Letters, 1989, 62, 1788-1791.	2.9	52
40	Very low noise photodetector based on the single electron transistor. Applied Physics Letters, 1992, 61, 2820-2822.	1.5	52
41	Thermal activation of a hysteretic dc superconducting quantum interference device from its different zero-voltage states. Physical Review B, 1992, 46, 5507-5522.	1.1	52
42	Banishing quasiparticles from Josephson-junction qubits: Why and how to do it. IEEE Transactions on Applied Superconductivity, 2003, 13, 989-993.	1.1	50
43	Supercurrent Spectroscopy of Andreev States. Physical Review X, 2013, 3, .	2.8	49
44	Conduction channels of an InAs-Al nanowire Josephson weak link. New Journal of Physics, 2017, 19, 092002.	1.2	47
45	Dynamics of quasiparticle trapping in Andreev levels. Physical Review B, 2014, 89, .	1.1	45
46	Superconducting Atomic Contacts under Microwave Irradiation. Physical Review Letters, 2006, 97, 067006.	2.9	39
47	Rabi oscillations, Ramsey fringes and spin echoes in an electrical circuit. Fortschritte Der Physik, 2003, 51, 462-468.	1.5	34
48	Asymmetric Noise Probed with a Josephson Junction. Physical Review Letters, 2009, 102, 067002.	2.9	33
49	Multiple Andreev Reflections Revealed by the Energy Distribution of Quasiparticles. Physical Review Letters, 2001, 86, 1078-1081.	2.9	32
50	Excess noise in dc SQUIDs from 4.2K to 0.022K. IEEE Transactions on Magnetics, 1987, 23, 1662-1665.	1.2	31
51	Controlled transfer of single charge carriers. IEEE Transactions on Magnetics, 1991, 27, 2578-2580.	1.2	29
52	Hot electron effect in the DC SQUID. IEEE Transactions on Magnetics, 1989, 25, 1001-1004.	1.2	27
53	Crossover from Josephson to Multiple Andreev Reflection Currents in Atomic Contacts. Physical Review Letters, 2007, 99, 067008.	2.9	20
54	Signatures of Interactions in the Andreev Spectrum of Nanowire Josephson Junctions. Physical Review Letters, 2022, 128, .	2.9	19

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55	Passing electrons one by one: is a 10^{-8} accuracy achievable?. IEEE Transactions on Instrumentation and Measurement, 1993, 42, 324-330.	2.4	18
56	Circuit-QED with phase-biased Josephson weak links. Physical Review Research, 2021, 3, .	1.3	18
57	Theory of microwave spectroscopy of Andreev bound states with a Josephson junction. Physical Review B, 2014, 90, .	1.1	17
58	Measuring the time spent traversing the barrier while tunneling. Physica B: Condensed Matter, 1988, 152, 159-161.	1.3	16
59	Dynamical isoperimeter pattern in the square sine-Gordon system. Physical Review B, 1990, 42, 8418-8425.	1.1	13
60	Conduction channels of superconducting quantum point contacts. Physica B: Condensed Matter, 2000, 280, 425-431.	1.3	13
61	From Adiabatic to Dispersive Readout of Quantum Circuits. Physical Review Letters, 2020, 125, 077701.	2.9	13
62	Effect of an Adjustable Admittance on the Macroscopic Energy Levels of a Current Biased Josephson Junction. Physica Scripta, 1989, T25, 118-121.	1.2	12
63	Rotating Transverse Helical Nuclear Magnetic Ordering. Physical Review Letters, 1982, 48, 206-209.	2.9	11
64	Superconducting quantum point contacts. Comptes Rendus Physique, 2012, 13, 89-100.	0.3	9
65	Direct Observation of Rotational Brownian Motion of Spheres by NMR. Physical Review Letters, 1984, 52, 1180-1183.	2.9	8
66	Observation of the effect of an electromagnetic environment with sharp resonances on the current-voltage characteristics of a small capacitance tunnel junction. Physica B: Condensed Matter, 1994, 203, 397-403.	1.3	8
67	Macroscopic Quantum Effects in the Current-Biased Josephson Junction. Modern Problems in Condensed Matter Sciences, 1992, 34, 313-345.	0.1	8
68	Observability of the coulomb blockade in single tunnel junctions. Physica B: Condensed Matter, 1990, 165-166, 977-978.	1.3	7
69	High frequency satellites in resonant activation. Chemical Physics, 1998, 235, 47-50.	0.9	7
70	Role of Geometry on the Color of Flux Noise in dc SQUIDs. IEEE Transactions on Applied Superconductivity, 2011, 21, 856-859.	1.1	7
71	Rotating transverse nuclear helimagnetism in CaF ₂ . I. Prediction and experimental study. Journal of Physics C: Solid State Physics, 1986, 19, 2275-2297.	1.5	6
72	An extremely low noise photodetector based on the single electron transistor. Journal of Low Temperature Physics, 1993, 93, 767-772.	0.6	6

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73	What are Landauer's conduction channels in an atomic-size metallic contact?. Superlattices and Microstructures, 1998, 23, 747-756.	1.4	6
74	Rotating transverse nuclear helimagnetism in CaF ₂ . II. Theoretical approximations. Journal of Physics C: Solid State Physics, 1986, 19, 2299-2328.	1.5	4
75	Measurement of the latency time of Macroscopic Quantum Tunneling. Physica B: Condensed Matter, 1991, 169, 26-31.	1.3	4
76	On the observability of Coulomb blockade and single-electron tunneling. Ultramicroscopy, 1992, 42-44, 22-32.	0.8	4
77	Measurement of the incremental charge of a superconducting island. Physica B: Condensed Matter, 1994, 197, 500-505.	1.3	4
78	Field-entropy phase diagram of a nuclear dipolar antiferromagnet. Journal De Physique, 1982, 43, 1461-1467.	1.8	4
79	Single cooper pair electronics. Applied Superconductivity, 1999, 6, 491-494.	0.5	3
80	Ramsey Fringe Measurement of Decoherence in a Novel Superconducting Quantum Bit Based on the Cooper Pair Box. Physica Scripta, 2002, T102, 162.	1.2	3
81	Superconducting atomic contacts inductively coupled to a microwave resonator. Journal of Physics Condensed Matter, 2014, 26, 474208.	0.7	3
82	Low field behaviour of Tm ²⁺ in CaF ₂ at ultra-low nuclear spin temperature. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1980, 100, 333-342.	0.9	2
83	Towards quantum electrical circuits. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 7-10.	1.3	2
84	Manipulating Electrons One by One. Springer Series in Electrophysics, 1992, , 23-44.	0.2	1
85	Probing the Conduction Channels of Gold Atomic-Size Contacts: Proximity Effect and Multiple Andreev Reflections. , 2002, , 107-119.		1
86	Decay of the Zero Voltage State of a Josephson Junction Shunted by an Adjustable Impedance. Japanese Journal of Applied Physics, 1987, 26, 1629.	0.8	1
87	Transfer of Single Electrons and Single Cooper Pairs in Metallic Nanostructures. NATO ASI Series Series B: Physics, 1995, , 65-87.	0.2	0
88	Electron transport through a gold-bisthiolterthiophene-gold junction. , 1999, , .		0
89	Conductance Channels of Gold Atomic-Size Contacts. , 2000, , 27-34.		0
90	Quantum Noise and Mutiple Andreev Reflections in Superconducting Contacts. , 2003, , 51-71.		0

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91	Superconducting quantum bit based on the Cooper pair box. , 2003, , 173-195.		0
92	Manipulation and Readout of a Josephson Qubit. , 2004, , 13-21.		0
93	BLOCH OSCILLATIONS IN A JOSEPHSON CIRCUIT. , 2008, , .		0