A Levy Yeyati

List of Publications by Citations

151 papers	7,457 citations	43 h-index	84 g-index
161 ext. papers	8,349 ext. citations	5.2 avg, IF	5.94 L-index

#	Paper	IF	Citations
151	Quantum properties of atomic-sized conductors. *Physics Reports*, **2003**, 377, 81-279	27.7	1265
150	The signature of chemical valence in the electrical conduction through a single-atom contact. *Nature*, **1998**, 394, 154-157	50.4	549
149	Hamiltonian approach to the transport properties of superconducting quantum point contacts. *Physical Review B*, **1996**, 54, 7366-7379	3.3	370
148	Evidence of fano-like interference phenomena in locally resonant materials. *Physical Review Letters*, **2002**, 88, 225502	7.4	268
147	Carbon nanotubes as cooper-pair beam splitters. *Physical Review Letters*, **2010**, 104, 026801	7.4	264
146	Microscopic Origin of Conducting Channels in Metallic Atomic-Size Contacts. *Physical Review Letters* , **1998**, 80, 1066-1069	7.4	235
145	Andreev bound states in supercurrent-carrying carbon nanotubes revealed. *Nature Physics*, **2010**, 6, 965-969	16.2	217
144	Electron correlation resonances in the transport through a single quantum level. *Physical Review Letters*, **1993**, 71, 2991-2994	7.4	174
143	Josephson and Andreev transport through quantum dots. *Advances in Physics*, **2011**, 60, 899-958	18.4	169
142	Aharonov-Bohm oscillations in a mesoscopic ring with a quantum dot. *Physical Review B*, **1995**, 52, 14360-14363	3.3	162
141	Josephson current through a correlated quantum level: Andreev states and junction behavior. *Physical Review B*, **2003**, 68,	3.3	151
140	Evolution of Conducting Channels in Metallic Atomic Contacts under Elastic Deformation. *Physical Review Letters*, **1998**, 81, 2990-2993	7.4	145
139	Resonant tunneling through a small quantum dot coupled to superconducting leads. *Physical Review B*, **1997**, 55, R6137-R6140	3.3	131
138	Even-odd effect in Andreev transport through a carbon nanotube quantum dot. *Physical Review Letters*, **2007**, 99, 126602	7.4	113
137	Entangled Andreev pairs and collective excitations in nanoscale superconductors. *Nature Physics*, **2007**, 3, 455-459	16.2	98
136	Universal features of electron-phonon interactions in atomic wires. *Physical Review B*, **2006**, 73,	3.3	95
135	Kondo effect in normal-superconductor quantum dots. *Physical Review B*, **2001**, 63,	3.3	95

134	Electron Resonances in Sharp Tips and Their Role in Tunneling Spectroscopy. *Physical Review Letters*, **1998**, 80, 357-360	7.4	91
133	Scattering phases in quantum dots: An analysis based on lattice models. *Physical Review B*, **2000**, 62, 7307-7315	3.3	90
132	Detection of vibration-mode scattering in electronic shot noise. *Physical Review Letters*, **2012**, 108, 146602	7.4	82
131	Electron-phonon interaction and full counting statistics in molecular junctions. *Physical Review B*, **2009**, 80,	3.3	80
130	Helical Luttinger liquid in topological insulator nanowires. *Physical Review Letters*, **2010**, 105, 136403	7.4	77
129	Shot Noise and Coherent Multiple Charge Transfer in Superconducting Quantum Point Contacts. *Physical Review Letters*, **1999**, 82, 4086-4089	7.4	76
128	Coulomb blockade of Majorana-fermion-induced transport. *Physical Review B*, **2011**, 84,	3.3	69
127	Majorana single-charge transistor. *Physical Review Letters*, **2012**, 109, 166403	7.4	68
126	Supercurrent in atomic point contacts and andreev states. *Physical Review Letters*, **2000**, 85, 170-3	7.4	68
125	Microscopic theory of Josephson mesoscopic constrictions. *Physical Review Letters*, **1994**, 72, 554-557	7.4	67
124	Transport in Multilevel Quantum Dots: From the Kondo Effect to the Coulomb Blockade Regime. *Physical Review Letters*, **1999**, 83, 600-603	7.4	65
123	Inverse proximity effect in superconductor-ferromagnet structures: From the ballistic to the diffusive limit. *Physical Review B*, **2005**, 72,	3.3	62
122	Thermal noise in superconducting quantum point contacts. *Physical Review B*, **1996**, 53, R8891-R8894	3.3	62
121	Nonlinear effects of phonon fluctuations on transport through nanoscale junctions. *Physical Review B*, **2010**, 82,	3.3	59
120	Self-consistent theory of superconducting mesoscopic weak links. *Physical Review B*, **1995**, 51, 3743-3753	3.3	59
119	Transport in superlattices on single-layer graphene. *Physical Review B*, **2011**, 83,	3.3	54
118	Low-energy theory of transport in Majorana wire junctions. *Physical Review B*, **2016**, 94,	3.3	53
117	Local-density approach and quasiparticle levels for generalized Hubbard Hamiltonians. *Physical Review B*, **2000**, 62, 4309-4331	3.3	52

116	Transient dynamics and waiting time distribution of molecular junctions in the polaronic regime. *Physical Review B*, **2015**, 92,	3.3	49
115	Conductance quantization and electron resonances in sharp tips and atomic-size contacts. *Physical Review B*, **1997**, 56, 10369-10372	3.3	48
114	Direct link between Coulomb blockade and shot noise in a quantum-coherent structure. *Physical Review Letters*, **2001**, 87, 046802	7.4	48
113	Entanglement detection from conductance measurements in carbon nanotube cooper pair splitters. *Physical Review Letters*, **2013**, 111, 136806	7.4	47
112	Spin-Orbit Splitting of Andreev States Revealed by Microwave Spectroscopy. *Physical Review X*, **2019**, 9,	9.1	46
111	Temperature dependence of Andreev spectra in a superconducting carbon nanotube quantum dot. *Physical Review B*, **2014**, 89,	3.3	45
110	Microscopic theory of the proximity effect in superconductor-graphene nanostructures. *Physical Review B*, **2008**, 77,	3.3	45
109	Microscopic theory of Cooper pair beam splitters based on carbon nanotubes. *Physical Review B*, **2011**, 84,	3.3	44
108	Magnetic Field Tuning and Quantum Interference in a Cooper Pair Splitter. *Physical Review Letters*, **2015**, 115, 227003	7.4	43
107	Electron correlation effects in the Si(111)-7⍰ surface. *Physical Review B*, **1998**, 58, 4584-4588	3.3	43
106	Subharmonic gap structure in short ballistic graphene junctions. *Physical Review B*, **2006**, 74,	3.3	42
105	Different wavelength oscillations in the conductance of 5d metal atomic chains. *Physical Review B*, **2004**, 70,	3.3	42
104	Subradiant split Cooper pairs. *Physical Review Letters*, **2012**, 108, 166803	7.4	39
103	Nonadiabatic features of electron pumping through a quantum dot in the Kondo regime. *Physical Review B*, **2008**, 77,	3.3	38
102	Zero-energy pinning from interactions in Majorana nanowires. *Npj Quantum Materials*, **2017**, 2,	5	37
101	Interplay between Josephson effect and magnetic interactions in double quantum dots. *Physical Review B*, **2006**, 74,	3.3	37
100	Subharmonic shapiro steps and assisted tunneling in superconducting point contacts. *Physical Review Letters*, **2002**, 88, 157001	7.4	35
99	Dynamics of quasiparticle trapping in Andreev levels. *Physical Review B*, **2014**, 89,	3.3	34

98	Long transient dynamics in the Anderson-Holstein model out of equilibrium. *Physical Review B*, **2013**, 87,	3.3	34
97	Nonequilibrium dynamics of Andreev states in the Kondo regime. *Physical Review Letters*, **2003**, 91, 266802	7.4	32
96	Energy spectrum and broken spin-surface locking in topological insulator quantum dots. *Physical Review B*, **2011**, 83,	3.3	31
95	The Andreev states of a superconducting quantum dot: mean field versus exact numerical results. *Journal of Physics Condensed Matter*, **2012**, 24, 385303	1.8	27
94	A Green function approach to graphene-superconductor junctions with well-defined edges. *Journal of Physics Condensed Matter*, **2010**, 22, 275304	1.8	27
93	Interpolative approach for electron-electron and electron-phonon interactions: From the Kondo to the polaronic regime. *Physical Review B*, **2008**, 78,	3.3	26
92	Dressed tunneling approximation for electronic transport through molecular transistors. *Physical Review B*, **2014**, 89,	3.3	23
91	Self-consistent microscopic calculations for nonlocal transport through nanoscale superconductors. *Physical Review B*, **2009**, 79,	3.3	23
90	Proximity-induced interface bound states in superconductor-graphene junctions. *Physical Review B*, **2009**, 80,	3.3	21
89	Controlled dephasing of Andreev states in superconducting quantum point contacts. *Physical Review B*, **2001**, 64,	3.3	21
88	Quench dynamics in superconducting nanojunctions: Metastability and dynamical Yang-Lee zeros. *Physical Review B*, **2017**, 96,	3.3	20
87	Josephson effect through a quantum dot array. *Physical Review B*, **2007**, 76,	3.3	20
86	Interaction-induced zero-energy pinning and quantum dot formation in Majorana nanowires. *Beilstein Journal of Nanotechnology*, **2018**, 9, 2171-2180	3	20
85	Quasiparticle trapping, Andreev level population dynamics, and charge imbalance in superconducting weak links. *Physical Review B*, **2014**, 90,	3.3	19
84	Cooling by Cooper pair splitting. *Physical Review B*, **2018**, 98,	3.3	19
83	Selective focusing of electrons and holes in a graphene-based superconducting lens. *Physical Review B*, **2012**, 85,	3.3	18
82	Model calculation of the noise characteristic in double-barrier heterostructures. *Physical Review B*, **1993**, 47, 10543-10547	3.3	18
81	Andreev spin qubits in multichannel Rashba nanowires. *Physical Review B*, **2017**, 96,	3.3	17

80	Josephson effect for SU(4) carbon-nanotube quantum dots. *Physical Review B*, **2010**, 81,	3.3	17
79	Crossover from Josephson to multiple Andreev reflection currents in atomic contacts. *Physical Review Letters*, **2007**, 99, 067008	7.4	17
78	Transport properties of normal and ferromagnetic atomic-size constrictions with superconducting electrodes. *Physica C: Superconductivity and Its Applications*, **2001**, 352, 67-72	1.3	17
77	Recursion method for nonhomogeneous superconductors: Proximity effect in superconductor-ferromagnet nanostructures. *Physical Review B*, **2001**, 64,	3.3	17
76	Andreev Bound States Formation and Quasiparticle Trapping in Quench Dynamics Revealed by Time-Dependent Counting Statistics. *Physical Review Letters*, **2016**, 117, 267701	7.4	17
75	Josephson effect in multiterminal topological junctions. *Physical Review B*, **2017**, 96,	3.3	16
74	Distribution of conduction channels in nanoscale contacts: Evolution towards the diffusive limit. *Europhysics Letters*, **2005**, 70, 663-669	1.6	16
73	Photocurrent effects in the scanning tunneling microscope. *Physical Review B*, **1991**, 44, 9020-9024	3.3	16
72	Long-range crossed Andreev reflections in high-temperature superconductors. *Physical Review B*, **2009**, 79,	3.3	15
71	Signatures of nonlocal Cooper-pair transport and of a singlet-triplet transition in the critical current of a double-quantum-dot Josephson junction. *Physical Review B*, **2016**, 94,	3.3	14
70	METAL□NSULATOR TRANSITION IN THE Si(111)-(7□) SURFACE. *Surface Review and Letters*, **1997**, 04, 281-286	1.1	14
69	Conductance properties of nanotubes coupled to superconducting leads: signatures of Andreev states dynamics. *Solid State Communications*, **2004**, 131, 625-630	1.6	14
68	Giant Shot Noise from Majorana Zero Modes in Topological Trijunctions. *Physical Review Letters*, **2019**, 122, 097003	7.4	13
67	General transport properties of superconducting quantum point contacts: a Green functions approach. *Superlattices and Microstructures*, **1999**, 25, 925-936	2.8	13
66	Spin filtering and entanglement detection due to spin-orbit interaction in carbon nanotube cross-junctions. *Physical Review B*, **2013**, 88,	3.3	12
65	Conduction channels of superconducting quantum point contacts. *Physica B: Condensed Matter*, **2000**, 280, 425-431	2.8	12
64	Tunnelling dynamics between superconducting bound states at the atomic limit. *Nature Physics*, **2020**, 16, 1227-1231	16.2	12
63	Electron correlation effects and ferromagnetism in iron. *Journal of Physics Condensed Matter*, **2002**, 14, L421-L427	1.8	11

62	Nonlinear conductance fluctuations in quantum wires: Appearance of two different energy scales. *Physical Review B*, **1992**, 45, 14189-14196	3.3	11
61	Quantum interference in a Cooper pair splitter: The three sites model. *Physica E: Low-Dimensional Systems and Nanostructures*, **2016**, 75, 322-329	3	10
60	Phase diffusion and fractional Shapiro steps in superconducting quantum point contacts. *Physical Review B*, **2005**, 71,	3.3	10
59	Effects of the electrostatic environment on superlattice Majorana nanowires. *Physical Review B*, **2019**, 100,	3.3	9
58	Nonlocal transport through multiterminal diffusive superconducting nanostructures. *Physical Review B*, **2009**, 80,	3.3	9
57	Dynamical coulomb blockade of multiple Andreev reflections. *Physical Review Letters*, **2005**, 95, 056804	7.4	9
56	Theoretical estimation of the electric-field gradient in amorphous alloys. *Physical Review B*, **1988**, 37, 10608-10611	3.3	9
55	Quantum phase transitions and the role of impurity-substrate hybridization in Yu-Shiba-Rusinov states. *Communications Physics*, **2020**, 3,	5.4	9
54	Kondo effect and spin-active scattering in ferromagnet-superconductor junctions. *Physical Review B*, **2012**, 85,	3.3	8
53	Electron correlation effects at semiconductor surfaces and interfaces: Si(111)-5x5, Si(111)-7x7 and SnGe(111). *Progress in Surface Science*, **1998**, 59, 233-243	6.6	8
52	Electron correlation effects in the Si (111)-5 □5 and -7 □7 surfaces. *Applied Surface Science*, **1998**, 123-124, 131-135	6.7	8
51	Structure of gold monoatomic wires connected to two electrodes. *Physica B: Condensed Matter*, **2007**, 398, 309-312	2.8	8
50	Theory of circular dichroism in photon STM experiments on magnetic samples. *Physical Review B*, **1995**, 52, 12505-12507	3.3	8
49	Quasi-one-dimensional structures and metallization for the deposition of K on GaAs(100) As-rich surfaces. *Physical Review B*, **1995**, 52, 16345-16348	3.3	8
48	On the theory of difference frequency generation and light rectification in the scanning tunnelling microscope. *Journal of Physics Condensed Matter*, **1992**, 4, 7341-7354	1.8	8
47	Electronic structure of copper oxide clusters in the high TC superconductors: Relation to some recent experimental data. *Solid State Communications*, **1988**, 66, 491-496	1.6	8
46	Coherent manipulation of an Andreev spin qubit. *Science*, **2021**, 373, 430-433	33.3	8
45	Analysis of universality in transient dynamics of coherent electronic transport. *Fortschritte Der Physik*, **2017**, 65, 1600062	5.7	7

44	Detection of spin entanglement via spin-charge separation in crossed Tomonaga-Luttinger liquids. *Physical Review Letters*, **2014**, 113, 266401	7.4	7
43	Microscopic theory of the phase-dependent linear conductance in highly transmissive superconducting quantum point contacts. *Physica B: Condensed Matter*, **1996**, 218, 126-129	2.8	7
42	Josephson effect in junctions of conventional and topological superconductors. *Beilstein Journal of Nanotechnology*, **2018**, 9, 1659-1676	3	7
41	Influence of the Majorana nonlocality on the supercurrent. *Physical Review B*, **2018**, 98,	3.3	7
40	Buildup of vibron-mediated electron correlations in molecular junctions. *Physical Review B*, **2019**, 99,	3.3	6
39	Proximity induced time-reversal topological superconductivity in Bi2Se3 films without phase tuning. *Physical Review B*, **2019**, 99,	3.3	6
38	Transport in selectively magnetically doped topological insulator wires. *Physical Review B*, **2015**, 92,	3.3	6
37	The Kubo formula for the conductance of finite systems in the ballistic regime: a simple algorithm. *Journal of Physics Condensed Matter*, **1990**, 2, 6533-6540	1.8	6
36	Transient dynamics in interacting nanojunctions within self-consistent perturbation theory. *New Journal of Physics*, **2018**, 20, 083039	2.9	6
35	Metal-insulator transition for K on GaAs(100)-As rich surfaces. *Applied Surface Science*, **1996**, 104-105, 248-252	6.7	5
34	From Adiabatic to Dispersive Readout of Quantum Circuits. *Physical Review Letters*, **2020**, 125, 077701	7.4	5
33	Subgap states in two-dimensional spectroscopy of graphene-based superconducting hybrid junctions. *Physical Review B*, **2019**, 99,	3.3	4
32	The phase-dependent linear conductance of a superconducting quantum point contact. *Journal of Physics Condensed Matter*, **1996**, 8, 449-456	1.8	4
31	Structural relaxation of amorphous Zr70Cu30 and its effect on the electronic properties. *Physical Review B*, **1987**, 35, 2714-2719	3.3	4
30	Circuit-QED with phase-biased Josephson weak links. *Physical Review Research*, **2021**, 3,	3.9	4
29	Boundary Green's function approach for spinful single-channel and multichannel Majorana nanowires. *Physical Review B*, **2020**, 101,	3.3	3
28	Formation of Interface Bound States on a Graphene-Superconductor Junction in the Presence of Charge Inhomogeneities. *Graphene*, **2013**, 02, 35-41	1.5	3
27	Self-consistent theory for the DC Josephson effect in a superconducting STM junction. *Surface Science*, **1994**, 307-309, 973-977	1.8	3

26	Theory of photovoltaic effect in STM: application to graphite. *Ultramicroscopy*, **1992**, 42-44, 242-249	3.1	3
25	Theory of light rectification in scanning tunneling microscopy in the presence of an adsorbed molecule. *Annalen Der Physik*, **1993**, 505, 126-132	2.6	3
24	Evaluation of the Kubo formula for conductivity using the recursion method. *Journal of Physics Condensed Matter*, **1989**, 1, 5429-5439	1.8	3
23	Electronic densities of states of bimetallic superlattices with interfacial diffusion. *Physical Review B*, **1985**, 31, 873-878	3.3	3
22	Improved effective equation for the Rashba spin-orbit coupling in semiconductor nanowires. *Physical Review Research*, **2020**, 2,	3.9	3
21	Dynamical Coulomb Blockade as a Local Probe for Quantum Transport. *Physical Review Letters*, **2020**, 124, 156803	7.4	2
20	Single channel Josephson effect in a high transmission atomic contact. *Communications Physics*, **2020**, 3,	5.4	2
19	Spin coherent manipulation in Josephson weak links. *Physical Review Research*, **2021**, 3,	3.9	2
18	Dirac point formation revealed by Andreev tunneling in superlattice-graphene/superconductor junctions. *Physical Review B*, **2019**, 100,	3.3	2
17	Nonequilibrium charge dynamics in Majorana-Josephson devices. *Physical Review B*, **2018**, 98,	3.3	2
16	Interpolative Method for Transport Properties of Quantum Dots in the Kondo Regime **1999**, 27-34		2
15	Andreev-Coulomb Drag in Coupled Quantum Dots. *Physical Review Letters*, **2020**, 125, 247701	7.4	1
14	FORMATION OF METAL-SEMICONDUCTOR BARRIERS FOR GaAs-INTERFACES IN THE LOW METAL COVERAGE LIMIT. *Progress in Surface Science*, **1997**, 54, 229-240	6.6	1
13	Effective-medium calculations for an amorphous metallic alloy. *Physical Review B*, **1988**, 38, 10929-10932	3.3	1
12	Spin-dependent tunneling between individual superconducting bound states. *Physical Review Research*, **2021**, 3,	3.9	1
11	Tunable proximity effects and topological superconductivity in ferromagnetic hybrid nanowires. *Physical Review B*, **2021**, 104,	3.3	1
10	Coherent coupling between vortex bound states and magnetic impurities in 2D layered superconductors. *Nature Communications*, **2021**, 12, 4668	17.4	1
9	Interaction Effects on Transport in Majorana Nanowires **2015**, 377-400		

8	Reprint of : Quantum interference in a Cooper pair splitter: The three sites model. *Physica E: Low-Dimensional Systems and Nanostructures*, **2016**, 82, 160-167	3
7	Transport Through a Coulomb Blockaded Majorana Nanowire. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2013**, 63-76	0.2
6	Course 8 Transport at the atomic scale: Atomic and molecular contacts. *Les Houches Summer School Proceedings*, **2005**, 81, 495-535	
5	Numerical study of nonlinear conductance fluctuations in mesoscopic wires. *Physica B: Condensed Matter*, **1991**, 175, 61-64	2.8
4	Quantum Noise and Mutiple Andreev Reflections in Superconducting Contacts **2003**, 51-71	
3	Josephson Effect and Magnetic Interactions in Double Quantum Dots. *Mathematics in Industry*, **2008**, 426-430	0.2
2	Mesoscopic Features in Nanoscale Superconducting Devices. *Springer Series in Materials Science*, **2019**, 147-207	0.9
1	Photoinduced Currents in Normal and Superconducting Micro-Junctions **1995**, 281-294	