

# Jean Marc Berroir

## List of Publications by Year in descending order

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88  
papers

4,199  
citations

117625

34  
h-index

106344

65  
g-index

89  
all docs

89  
docs citations

89  
times ranked

2636  
citing authors

#	ARTICLE	IF	CITATIONS
1	An On-Demand Coherent Single-Electron Source. <i>Science</i> , 2007, 316, 1169-1172.	12.6	460
2	Violation of Kirchhoff's Laws for a Coherent RC Circuit. <i>Science</i> , 2006, 313, 499-502.	12.6	305
3	Coherence and Indistinguishability of Single Electrons Emitted by Independent Sources. <i>Science</i> , 2013, 339, 1054-1057.	12.6	303
4	Fractional statistics in anyon collisions. <i>Science</i> , 2020, 368, 173-177.	12.6	225
5	Supercollision cooling in undoped graphene. <i>Nature Physics</i> , 2013, 9, 109-112.	16.7	179
6	Electron quantum optics in ballistic chiral conductors. <i>Annalen Der Physik</i> , 2014, 526, 1-30.	2.4	162
7	Electron Quantum Optics: Partitioning Electrons One by One. <i>Physical Review Letters</i> , 2012, 108, 196803.	7.8	155
8	Hot Electron Cooling by Acoustic Phonons in Graphene. <i>Physical Review Letters</i> , 2012, 109, 056805.	7.8	120
9	Current correlations of an on-demand single-electron emitter. <i>Physical Review B</i> , 2010, 82, .	3.2	115
10	Separation of neutral and charge modes in one-dimensional chiral edge channels. <i>Nature Communications</i> , 2013, 4, 1839.	12.8	106
11	Magnetic-field-induced type-I to type-II transition in a semimagnetic CdTe/Cd <sub>0.93</sub> Mn <sub>0.07</sub> Te superlattice. <i>Physical Review B</i> , 1990, 42, 5891-5894.	3.2	105
12	Hong-Ou-Mandel experiment for temporal investigation of single-electron fractionalization. <i>Nature Communications</i> , 2015, 6, 6854.	12.8	101
13	Single-electron quantum tomography in quantum Hall edge channels. <i>New Journal of Physics</i> , 2011, 13, 093007.	2.9	96
14	Current noise spectrum of a single-particle emitter: Theory and experiment. <i>Physical Review B</i> , 2012, 85, .	3.2	96
15	Noisy Kondo impurities. <i>Nature Physics</i> , 2009, 5, 208-212.	16.7	91
16	Geometrical Dependence of High-Bias Current in Multiwalled Carbon Nanotubes. <i>Physical Review Letters</i> , 2004, 92, 026804.	7.8	88
17	Magneto-optical determination of the HgTe-CdTe superlattice band structure. <i>Physical Review B</i> , 1986, 34, 891-894.	3.2	80
18	Self-organization on Au(111) vicinal surfaces and the role of surface stress. <i>Surface Science</i> , 1999, 422, 33-41.	1.9	68

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19	Growth of self-organized cobalt nanostructures on Au(111) vicinal surfaces. <i>Surface Science</i> , 2000, 447, L152-L156.	1.9	68
20	Single Carbon Nanotube Transistor at GHz Frequency. <i>Nano Letters</i> , 2008, 8, 525-528.	9.1	68
21	Shot Noise in Fabry-Perot Interferometers Based on Carbon Nanotubes. <i>Physical Review Letters</i> , 2007, 99, 156804.	7.8	66
22	Relaxation Time of a Chiral Quantum RLC Circuit. <i>Physical Review Letters</i> , 2007, 98, 166806.	7.8	65
23	A graphene Zener-Klein transistor cooled by a hyperbolic substrate. <i>Nature Nanotechnology</i> , 2018, 13, 47-52.	31.5	64
24	Studies of exchange-induced properties of CdTe/Cd <sub>1-x</sub> MnxTe superlattices. <i>Journal of Luminescence</i> , 1992, 52, 147-164.	3.1	53
25	Hanbury Brown-Twiss Correlations to Probe the Population Statistics of GHz Photons Emitted by Conductors. <i>Physical Review Letters</i> , 2004, 93, 056801.	7.8	51
26	Decoherence and relaxation of a single electron in a one-dimensional conductor. <i>Physical Review B</i> , 2016, 94, .	3.2	51
27	A Klein-tunneling transistor with ballistic graphene. <i>2D Materials</i> , 2014, 1, 011006.	4.4	48
28	Interaction between steps and reconstruction on Au(111). <i>Europhysics Letters</i> , 1999, 47, 435-441.	2.0	45
29	A coherent RC circuit. <i>Reports on Progress in Physics</i> , 2012, 75, 126504.	20.1	43
30	Interplay between Atomic and Mesoscopic Order on Gold Vicinal Surfaces. <i>Physical Review Letters</i> , 2000, 84, 5367-5370.	7.8	41
31	Electron-mass anisotropy in type-III HgZnTe-CdTe superlattices. <i>Physical Review Letters</i> , 1989, 62, 2024-2027.	7.8	38
32	HgTe-CdTe superlattices: Magneto-optics and band structure. <i>IEEE Journal of Quantum Electronics</i> , 1986, 22, 1793-1798.	1.9	35
33	HgTe-CdTe superlattices: Experimental and theoretical curves of band gap versus HgTe layer thickness. <i>Applied Physics Letters</i> , 1986, 49, 106-108.	3.3	35
34	Quantum tomography of electrical currents. <i>Nature Communications</i> , 2019, 10, 3379.	12.8	35
35	Transport scattering time probed through rf admittance of a graphene capacitor. <i>Physical Review B</i> , 2011, 83, .	3.2	33
36	Excitonic effects in separate-confinement quantum-well heterostructures CdTe/(Cd,Zn)Te. <i>Physical Review B</i> , 1992, 45, 6305-6308.	3.2	32

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37	Self-ordering on crystal surfaces: fundamentals and applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 96, 169-177.	3.5	31
38	Conserved spin and orbital phase along carbon nanotubes connected with multiple ferromagnetic contacts. <i>Physical Review B</i> , 2010, 81, .	3.2	29
39	Magnetotunneling analysis of the scattering processes in a double-barrier structure with a two-dimensional emitter. <i>Physical Review B</i> , 1991, 43, 4843-4848.	3.2	27
40	Temperature effect on the magnetic-field-induced type-I $\rightarrow$ type-II transition in a CdTe/(Cd,Mn)Te superlattice. <i>Physical Review B</i> , 1991, 44, 11302-11306.	3.2	22
41	Two-particle interferometry in quantum Hall edge channels. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600618.	1.5	21
42	Dielectric permittivity, conductivity and breakdown field of hexagonal boron nitride. <i>Materials Research Express</i> , 2022, 9, 065901.	1.6	21
43	Free-carrier and intersubband infrared absorption in p-type Si $_{1-x}$ Ge $_x$ /Si multiple quantum wells. <i>Physical Review B</i> , 1995, 51, 14311-14316.	3.2	20
44	High-Frequency Limits of Graphene Field-Effect Transistors with Velocity Saturation. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 446.	2.5	20
45	Thermal faceting behavior of Au(4,5,5). <i>Surface Science</i> , 1999, 443, 265-276.	1.9	19
46	Contact gating at GHz frequency in graphene. <i>Scientific Reports</i> , 2016, 6, 21085.	3.3	19
47	Dynamical Separation of Bulk and Edge Transport in HgTe-Based 2D Topological Insulators. <i>Physical Review Letters</i> , 2020, 124, 076802.	7.8	18
48	Subnanosecond Single Electron Source in the Time-Domain. <i>Journal of Low Temperature Physics</i> , 2008, 153, 339-349.	1.4	17
49	Ultra-long wavelength Dirac plasmons in graphene capacitors. <i>JPhys Materials</i> , 2018, 1, 01LT02.	4.2	17
50	A high sensitivity ultralow temperature RF conductance and noise measurement setup. <i>Review of Scientific Instruments</i> , 2011, 82, 013904.	1.3	15
51	Selection-rule breakdown in coherent resonant tunneling in a tilted magnetic field. <i>Physical Review B</i> , 1991, 44, 13795-13798.	3.2	14
52	Microwave photons emitted by fractionally charged quasiparticles. <i>Nature Communications</i> , 2019, 10, 1708.	12.8	13
53	Magnetic field-induced type I $\rightarrow$ type II transition in a semimagnetic superlattice. <i>Superlattices and Microstructures</i> , 1990, 8, 171-174.	3.1	12
54	Band structure of III $\rightarrow$ V and II $\rightarrow$ VI superlattices. <i>Superlattices and Microstructures</i> , 1987, 3, 239-245.	3.1	11

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55	Investigation of two-dimensional hole gases in Si/SiGe heterostructures. <i>Physical Review B</i> , 1993, 48, 12312-12315.	3.2	11
56	Optical investigations of a CdTe/(Cd,Zn)Te quantum well separate confinement heterostructure. <i>Surface Science</i> , 1992, 267, 137-140.	1.9	10
57	Onset of optical-phonon cooling in multilayer graphene revealed by RF noise and black-body radiation thermometries. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 164208.	1.8	10
58	Thermal shot noise in top-gated single carbon nanotube field effect transistors. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	9
59	Magneto-optical evidence of the exchange interaction in aHg1 <sup>x</sup> MnxTe-CdTe superlattice. <i>Physical Review B</i> , 1987, 36, 7930-7933.	3.2	8
60	Realization of a time-controlled subnanosecond single electron source for ballistic qubits. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 954-960.	2.7	7
61	A corner reflector of graphene Dirac fermions as a phonon-scattering sensor. <i>Nature Communications</i> , 2019, 10, 2428.	12.8	7
62	Summary Abstract: HgTe <sup>∞</sup> CdTe superlattices: Experiment and theoretical band gap and the ease at controlling the cutoff wavelength. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1987, 5, 3107-3109.	2.1	6
63	Graphene nanotransistors for RF charge detection. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 094004.	2.8	6
64	Time dependent electronic transport in chiral edge channels. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 76, 12-27.	2.7	6
65	Landau Velocity for Collective Quantum Hall Breakdown in Bilayer Graphene. <i>Physical Review Letters</i> , 2018, 121, 136804.	7.8	6
66	Characterization of helical Luttinger liquids in microwave stepped-impedance edge resonators. <i>Physical Review Research</i> , 2020, 2, .	3.6	5
67	Quantum box resonant tunneling spectroscopy: Experiments and modelisation. <i>Superlattices and Microstructures</i> , 1992, 12, 473-476.	3.1	4
68	Morphology of Au(1,1,1) vicinal surfaces studied by grazing incidence X-ray diffraction. <i>Physica B: Condensed Matter</i> , 2000, 283, 223-227.	2.7	4
69	A quantum mesoscopic RC circuit realized in a 2D electron gas. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 34, 576-579.	2.7	4
70	Resonant tunneling in laterally confined double barrier structures. <i>Solid State Communications</i> , 1993, 87, 513-515.	1.9	3
71	Resonant tunnelling under a tilted magnetic field. <i>Journal of Physics Condensed Matter</i> , 1993, 5, A365-A366.	1.8	3
72	Charge transfer in p <sup>+</sup> -Si / Si <sub>1-x</sub> Gex modulation doped heterostructures grown by RTCVD. <i>Microelectronic Engineering</i> , 1994, 25, 171-176.	2.4	3

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73	Infrared absorption in p-type quantum wells: Intersubband transition and free carrier contributions. Solid-State Electronics, 1996, 40, 123-126.	1.4	3
74	Investigations of semiconducting and semimetallic HgZnTe <sub>1-x</sub> CdTe superlattices. Superlattices and Microstructures, 1990, 8, 167-169.	3.1	2
75	Infrared spectroscopy in p-type SiGe/Si quantum wells. Applied Surface Science, 1996, 102, 331-335.	6.1	2
76	Electron cyclotron resonance in type III HgZnTe <sub>1-x</sub> CdTe superlattices. Surface Science, 1990, 228, 37-40.	1.9	1
77	Evidence for semimetallic character in Hg <sub>1-x</sub> Zn <sub>x</sub> Te-CdTe superlattices. Surface Science, 1990, 229, 501-503.	1.9	1
78	Mercury-based narrow-gap superlattices. Superlattices and Microstructures, 1991, 10, 311-314.	3.1	1
79	Transport and magneto-optical properties of HgZnTe-CdTe superlattices. Semiconductor Science and Technology, 1991, 6, C80-C83.	2.0	1
80	Temperature dependence of the magneto-optical properties of a CdTe/Cd <sub>1-x</sub> Mn <sub>x</sub> Te multiquantum well structure. Surface Science, 1992, 263, 570-574.	1.9	1
81	Microwave surface transport in narrow-bandgap PdSe <sub>2</sub> -MOSFETs. 2D Materials, 2021, 8, 035035.	4.4	1
82	Magnetotransport and microwave photoresistivity of two-dimensional hole gases in Si-Si <sub>1-x</sub> Ge <sub>x</sub> heterostructures. Solid-State Electronics, 1994, 37, 953-956.	1.4	0
83	Inter-Landau level tunneling in an InGaAs/AlAs/GaAs structure under tilted magnetic field. Physica Status Solidi (B): Basic Research, 1996, 193, 119-124.	1.5	0
84	Collective excitations of electron disks in laterally patterned Si/SiGe modulation-doped heterojunctions. Thin Solid Films, 1997, 294, 315-317.	1.8	0
85	Hanbury Brown and Twiss Noise Correlations to Probe the Statistics of GHz Photons Emitted by Quantum Conductors. AIP Conference Proceedings, 2005, , .	0.4	0
86	Noise of a single electron emitter: Experiment. , 2011, , .		0
87	Graphene-based Klein tunneling transistor. , 2014, , .		0
88	Reprint of : Time dependent electronic transport in chiral edge channels. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 82, 129-144.	2.7	0