Jean Marc Berroir

List of Publications by Year
in descending order

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	Dielectric permittivity, conductivity and breakdown field of hexagonal boron nitride. Materials Research Express, 2022, 9, 065901.	1.6	21
2	Microwave surface transport in narrow-bandgap PdSe2 -MOSFETs. 2D Materials, 2021, 8, 035035.	4.4	1
3	Dynamical Separation of Bulk and Edge Transport in HgTe-Based 2D Topological Insulators. Physical Review Letters, 2020, 124, 076802.	7.8	18
4	High-Frequency Limits of Graphene Field-Effect Transistors with Velocity Saturation. Applied Sciences (Switzerland), 2020, 10, 446.	2.5	20
5	Fractional statistics in anyon collisions. Science, 2020, 368, 173-177.	12.6	225
6	Characterization of helical Luttinger liquids in microwave stepped-impedance edge resonators. Physical Review Research, 2020, 2, .	3.6	5
7	Quantum tomography of electrical currents. Nature Communications, 2019, 10, 3379.	12.8	35
8	A corner reflector of graphene Dirac fermions as a phonon-scattering sensor. Nature Communications, 2019, 10, 2428.	12.8	7
9	Microwave photons emitted by fractionally charged quasiparticles. Nature Communications, 2019, 10, 1708.	12.8	13
10	Landau Velocity for Collective Quantum Hall Breakdown in Bilayer Graphene. Physical Review Letters, 2018, 121, 136804.	7.8	6
11	Ultra-long wavelength Dirac plasmons in graphene capacitors. JPhys Materials, 2018, 1, 01LT02.	4.2	17
12	A graphene Zenerâ€“Klein transistor cooled by a hyperbolic substrate. Nature Nanotechnology, 2018, 13, 47-52.	31.5	64
13	Twoâ€particle interferometry in quantum Hall edge channels. Physica Status Solidi (B): Basic Research, 2017, 254, 1600618.	1.5	21
14	Decoherence and relaxation of a single electron in a one-dimensional conductor. Physical Review B, 2016, 94, .	3.2	51
15	Contact gating at GHz frequency in graphene. Scientific Reports, 2016, 6, 21085.	3.3	19
16	Time dependent electronic transport in chiral edge channels. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 76, 12-27.	2.7	6
17	Reprint of : Time dependent electronic transport in chiral edge channels. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 82, 129-144.	2.7	0
18	Onset of optical-phonon cooling in multilayer graphene revealed by RF noise and black-body radiation thermometries. Journal of Physics Condensed Matter, 2015, 27, 164208.	1.8	10

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19	Hong-Ou-Mandel experiment for temporal investigation of single-electron fractionalization. Nature Communications, 2015, 6, 6854.	12.8	101
20	A Klein-tunneling transistor with ballistic graphene. 2D Materials, 2014, 1, 011006.	4.4	48
21	Electron quantum optics in ballistic chiral conductors. Annalen Der Physik, 2014, 526, 1-30.	2.4	162
22	Graphene-based Klein tunneling transistor. , 2014, , .		0
23	Graphene nanotransistors for RF charge detection. Journal Physics D: Applied Physics, 2014, 47, 094004.	2.8	6
24	Supercollision cooling in undoped graphene. Nature Physics, 2013, 9, 109-112.	16.7	179
25	Coherence and Indistinguishability of Single Electrons Emitted by Independent Sources. Science, 2013, 339, 1054-1057.	12.6	303
26	Separation of neutral and charge modes in one-dimensional chiral edge channels. Nature Communications, 2013, 4, 1839.	12.8	106
27	Electron Quantum Optics: Partitioning Electrons One by One. Physical Review Letters, 2012, 108, 196803.	7.8	155
28	A coherent<i>RC</i>circuit. Reports on Progress in Physics, 2012, 75, 126504.	20.1	43
29	Current noise spectrum of a single-particle emitter: Theory and experiment. Physical Review B, 2012, 85, .	3.2	96
30	Hot Electron Cooling by Acoustic Phonons in Graphene. Physical Review Letters, 2012, 109, 056805.	7.8	120
31	Single-electron quantum tomography in quantum Hall edge channels. New Journal of Physics, 2011, 13, 093007.	2.9	96
32	Transport scattering time probed through rf admittance of a graphene capacitor. Physical Review B, 2011, 83, .	3.2	33
33	A high sensitivity ultralow temperature RF conductance and noise measurement setup. Review of Scientific Instruments, 2011, 82, 013904.	1.3	15
34	Noise of a single electron emitter: Experiment. , 2011, , .		0
35	Conserved spin and orbital phase along carbon nanotubes connected with multiple ferromagnetic contacts. Physical Review B, 2010, 81, .	3.2	29
36	Thermal shot noise in top-gated single carbon nanotube field effect transistors. Applied Physics Letters, 2010, 96, .	3.3	9

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37	Current correlations of an on-demand single-electron emitter. Physical Review B, 2010, 82, .	3.2	115
38	Noisy Kondo impurities. Nature Physics, 2009, 5, 208-212.	16.7	91
39	Subnanosecond Single Electron Source inÂtheÂTime-Domain. Journal of Low Temperature Physics, 2008, 153, 339-349.	1.4	17
40	Realization of a time-controlled subnanosecond single electron source for ballistic qubits. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 954-960.	2.7	7
41	Single Carbon Nanotube Transistor at GHz Frequency. Nano Letters, 2008, 8, 525-528.	9.1	68
42	Shot Noise in Fabry-Perot Interferometers Based on Carbon Nanotubes. Physical Review Letters, 2007, 99, 156804.	7.8	66
43	An On-Demand Coherent Single-Electron Source. Science, 2007, 316, 1169-1172.	12.6	460
44	Relaxation Time of a Chiral QuantumRâ^'LCircuit. Physical Review Letters, 2007, 98, 166806.	7.8	65
45	Violation of Kirchhoff's Laws for a Coherent RC Circuit. Science, 2006, 313, 499-502.	12.6	305
46	A quantum mesoscopic RC circuit realized in a 2D electron gas. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 34, 576-579.	2.7	4
47	Hanbury Brown and Twiss Noise Correlations to Probe the Statistics of GHz Photons Emitted by Quantum Conductors. AIP Conference Proceedings, 2005, , .	0.4	0
48	Hanbury Brownâ€"Twiss Correlations to Probe the Population Statistics of GHz Photons Emitted by Conductors. Physical Review Letters, 2004, 93, 056801.	7.8	51
49	Geometrical Dependence of High-Bias Current in Multiwalled Carbon Nanotubes. Physical Review Letters, 2004, 92, 026804.	7.8	88
50	Self-ordering on crystal surfaces: fundamentals and applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 96, 169-177.	3.5	31
51	Morphology of Au(1,1,1) vicinal surfaces studied by grazing incidence X-ray diffraction. Physica B: Condensed Matter, 2000, 283, 223-227.	2.7	4
52	Interplay between Atomic and Mesoscopic Order on Gold Vicinal Surfaces. Physical Review Letters, 2000, 84, 5367-5370.	7.8	41
53	Growth of self-organized cobalt nanostructures on Au(111) vicinal surfaces. Surface Science, 2000, 447, L152-L156.	1.9	68
54	Interaction between steps and reconstruction on Au(111). Europhysics Letters, 1999, 47, 435-441.	2.0	45

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55	Self-organization on Au(111) vicinal surfaces and the role of surface stress. Surface Science, 1999, 422, 33-41.	1.9	68
56	Thermal faceting behavior of Au(4,5,5). Surface Science, 1999, 443, 265-276.	1.9	19
57	Collective excitations of electron disks in laterally patterned Si/SiGe modulation-doped heterojunctions. Thin Solid Films, 1997, 294, 315-317.	1.8	0
58	Infrared absorption in p-type quantum wells: Intersubband transition and free carrier contributions. Solid-State Electronics, 1996, 40, 123-126.	1.4	3
59	Infrared spectroscopy in p-type SiGe/Si quantum wells. Applied Surface Science, 1996, 102, 331-335.	6.1	2
60	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
61	Free-carrier and intersubband infrared absorption inp-typeSi1â˘’xGex/Si multiple quantum wells. Physical Review B, 1995, 51, 14311-14316.	3.2	20
62	Charge transfer in p+-Si / Si1-xGex modulation doped heterostructures grown by RTCVD. Microelectronic Engineering, 1994, 25, 171-176.	2.4	3
63	Magnetotransport and microwave photoresistivity of two-dimensional hole gases in Si-Si1â˘’xGex heterostructures. Solid-State Electronics, 1994, 37, 953-956.	1.4	0
64	Resonant tunneling in laterally confined double barrier structures. Solid State Communications, 1993, 87, 513-515.	1.9	3
65	Investigation of two-dimensional hole gases in Si/SiGe heterostructures. Physical Review B, 1993, 48, 12312-12315.	3.2	11
66	Resonant tunnelling under a tilted magnetic field. Journal of Physics Condensed Matter, 1993, 5, A365-A366.	1.8	3
67	Excitonic effects in separate-confinement quantum-well heterostructures CdTe/(Cd,Zn)Te. Physical Review B, 1992, 45, 6305-6308.	3.2	32
68	Temperature dependence of the magneto-optical properties of a CdTe/Cd1â˘’xMnxTe multiquantum well structure. Surface Science, 1992, 263, 570-574.	1.9	1
69	Optical investigations of a CdTe/(Cd,Zn)Te quantum well separate confinement heterostructure. Surface Science, 1992, 267, 137-140.	1.9	10
70	Quantum box resonant tunneling spectroscopy: Experiments and modelisation. Superlattices and Microstructures, 1992, 12, 473-476.	3.1	4
71	Studies of exchange-induced properties of CdTeâ§¸Cd1â˘’xMnxTe superlattices. Journal of Luminescence, 1992, 52, 147-164.	3.1	53
72	Mercury-based narrow-gap superlattices. Superlattices and Microstructures, 1991, 10, 311-314.	3.1	1

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73	Selection-rule breakdown in coherent resonant tunneling in a tilted magnetic field. Physical Review B, 1991, 44, 13795-13798.	3.2	14
74	Transport and magneto-optical properties of HgZnTe-CdTe superlattices. Semiconductor Science and Technology, 1991, 6, C80-C83.	2.0	1
75	Temperature effect on the magnetic-field-induced type-Iâ†'type-II transition in a CdTe/(Cd,Mn)Te superlattice. Physical Review B, 1991, 44, 11302-11306.	3.2	22
76	Magnetotunneling analysis of the scattering processes in a double-barrier structure with a two-dimensional emitter. Physical Review B, 1991, 43, 4843-4848.	3.2	27
77	Investigations of semiconducting and semimetallic HgZnTeî—¸CdTe superlattices. Superlattices and Microstructures, 1990, 8, 167-169.	3.1	2
78	Magnetic field-induced type I â†' type II transition in a semimagnetic superlattice. Superlattices and Microstructures, 1990, 8, 171-174.	3.1	12
79	Magnetic-field-induced type-Iâ†'type-II transition in a semimagnetic CdTe/Cd0.93Mn0.07Te superlattice. Physical Review B, 1990, 42, 5891-5894.	3.2	105
80	Electron cyclotron resonance in type III HgZnTeî—¸CdTe superlattices. Surface Science, 1990, 228, 37-40.	1.9	1
81	Evidence for semimetallic character in Hg1â^'xZnxTe-CdTe superlattices. Surface Science, 1990, 229, 501-503.	1.9	1
82	Electron-mass anisotropy in type-III HgZnTe-CdTe superlattices. Physical Review Letters, 1989, 62, 2024-2027.	7.8	38
83	Summary Abstract: HgTeâ€"CdTe superlattices: Experiment and theoretical band gap and the ease at controlling the cutoff wavelength. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1987, 5, 3107-3109.	2.1	6
84	Magneto-optical evidence of the exchange interaction in aHg1â^'xMnxTe-CdTe superlattice. Physical Review B, 1987, 36, 7930-7933.	3.2	8
85	Band structure of IIIâ€"V and IIâ€"VI superlattices. Superlattices and Microstructures, 1987, 3, 239-245.	3.1	11
86	HgTe-CdTe superlattices: Magnetooptics and band structure. IEEE Journal of Quantum Electronics, 1986, 22, 1793-1798.	1.9	35
87	HgTeâ€CdTe superlattices: Experimental and theoretical curves of band gap versus HgTe layer thickness. Applied Physics Letters, 1986, 49, 106-108.	3.3	35
88	Magneto-optical determination of the HgTe-CdTe superlattice band structure. Physical Review B, 1986, 34, 891-894.	3.2	80