Xavier Waintal

List of Publications by Year
in descending order

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Version: 2024-02-01

61	2,877	257357	168321
papers	citations	24 h-index	53 g-index

61	61	61	2808
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Positioning of edge states in a quantum Hall graphene <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>p</mml:mi><mml:mi>n</mml:mi></mml:mrow></mml: junction. Physical Review B, 2022, 105, .		
2	Tkwant: a software package for time-dependent quantum transport. New Journal of Physics, 2021, 23, 023025.	1.2	20
3	Quantum quasi Monte Carlo algorithm for out-of-equilibrium Green functions at long times. Physical Review B, 2021, 103, .	1.1	12
4	Le problÃ¨me Ã N corps qui se cache derriÃ¨re lâ€™ordinateur quantique. , 2021, , 18-23.	0.1	0
5	Low-symmetry topological materials for large charge-to-spin interconversion: The case of transition metal dichalcogenide monolayers. Physical Review Research, 2021, 3, .	1.3	11
6	Unveiling multiferroic proximity effect in graphene. 2D Materials, 2020, 7, 015020.	2.0	7
7	Quantum Quasi-Monte Carlo Technique for Many-Body Perturbative Expansions. Physical Review Letters, 2020, 125, 047702.	2.9	26
8	What Limits the Simulation of Quantum Computers?. Physical Review X, 2020, 10, .	2.8	89
9	Canted Persistent Spin Texture and Quantum Spin Hall Effect in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WTe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn> Physical Review Letters, 2020, 125, 256603.	2.9	38
10	Nonlocal Spin Dynamics in the Crossover from Diffusive to Ballistic Transport. Physical Review Letters, 2020, 124, 196602.	2.9	17
11	Reconciling edge states with compressible stripes in a ballistic mesoscopic conductor. JPhys Materials, 2020, 3, 02LT01.	1.8	6
12	Sound-driven single-electron transfer in a circuit of coupled quantum rails. Nature Communications, 2019, 10, 4557.	5.8	50
13	Quantum Monte Carlo algorithm for out-of-equilibrium Green's functions at long times. Physical Review B, 2019, 100, .	1.1	24
14	Reconstructing Nonequilibrium Regimes of Quantum Many-Body Systems from the Analytical Structure of Perturbative Expansions. Physical Review X, 2019, 9, .	2.8	35
15	Role of Quasiparticles in an Electric Circuit with Josephson Junctions. Physical Review Letters, 2019, 122, 207702.	2.9	9
16	What determines the ultimate precision of a quantum computer. Physical Review A, 2019, 99, .	1.0	6
17	Pushing the limit of quantum transport simulations. Physical Review Research, 2019, 1, .	1.3	8
18	The self-consistent quantum-electrostatic problem in strongly non-linear regime. SciPost Physics, 2019, 7, .	1.5	16

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19	Coherent control of single electrons: a review of current progress. Reports on Progress in Physics, 2018, 81, 056503.	8.1	180
20	Transient and Sharvin resistances of Luttinger liquids. Physical Review B, 2018, 97, .	1.1	5
21	Toward flying qubit spectroscopy. Physical Review B, 2018, 98, .	1.1	7
22	Cooperative Charge Pumping and Enhanced Skyrmion Mobility. Physical Review Letters, 2018, 121, 257203.	2.9	9
23	Unveiling the bosonic nature of an ultrashort few-electron pulse. Nature Communications, 2018, 9, 2811.	5.8	28
24	A general algorithm for computing bound states in infinite tight-binding systems. SciPost Physics, 2018, 4, .	1.5	12
25	Control of the Oscillatory Interlayer Exchange Interaction with Terahertz Radiation. Physical Review Letters, 2017, 118, 097701.	2.9	6
26	Robust spin transfer torque in antiferromagnetic tunnel junctions. Physical Review B, 2017, 95, .	1.1	16
27	Towards realistic time-resolved simulations of quantum devices. Journal of Computational Electronics, 2016, 15, 1148-1157.	1.3	14
28	Linear-scaling source-sink algorithm for simulating time-resolved quantum transport and superconductivity. Physical Review B, 2016, 93, .	1.1	26
29	Reprint of : A computational approach to quantum noise in time-dependent nanoelectronic devices. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 82, 200-203.	1.3	1
30	A computational approach to quantum noise in time-dependent nanoelectronic devices. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 75, 72-76.	1.3	10
31	Quantum Monte Carlo for correlated out-of-equilibrium nanoelectronic devices. Physical Review B, 2015, 91, .	1.1	58
32	Manipulating Andreev and Majorana bound states with microwaves. Physical Review B, 2015, 92, .	1.1	6
33	Graphene spintronics: the European Flagship perspective. 2D Materials, 2015, 2, 030202.	2.0	243
34	The a.c. Josephson effect without superconductivity. Nature Communications, 2015, 6, 6524.	5.8	18
35	Kwant: a software package for quantum transport. New Journal of Physics, 2014, 16, 063065.	1.2	862
36	Dynamical control of interference using voltage pulses in the quantum regime. Nature Communications, 2014, 5, 3844.	5.8	44

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37	Theoretical, numerical, and experimental study of a flying qubit electronic interferometer. Physical Review B, 2014, 89, .	1.1	34
38	Stopping electrons with radio-frequency pulses in the quantum Hall regime. Physical Review B, 2014, 90, .	1.1	12
39	Numerical simulations of time-resolved quantum electronics. Physics Reports, 2014, 534, 1-37.	10.3	100
40	Thermally driven magnetic precession in spin valves. Physical Review B, 2014, 90, .	1.1	3
41	Competing topological phases in few-layer graphene. Journal of Computational Electronics, 2013, 12, 175-187.	1.3	1
42	Numerical toolkit for electronic quantum transport at finite frequency. Physical Review B, 2013, 87, .	1.1	17
43	Unified Drift-Diffusion Theory for Transverse Spin Currents in Spin Valves, Domain Walls, and Other Textured Magnets. Physical Review Letters, 2012, 109, 117204.	2.9	47
44	Interplay between Nonequilibrium and Equilibrium Spin Torque Using Synthetic Ferrimagnets. Physical Review Letters, 2012, 108, 086601.	2.9	11
45	Graphene-Based Heterojunction between Two Topological Insulators. Physical Review X, 2012, 2, .	2.8	29
46	Tunable thermopower in a graphene-based topological insulator. Physical Review B, 2012, 85, .	1.1	29
47	Inducing and optimizing magnetism in graphene nanomeshes. Physical Review B, 2011, 84, .	1.1	69
48	Multiscale approach to spin transport in magnetic multilayers. Physical Review B, 2011, 84, .	1.1	16
49	Crossed Andreev reflection versus electron transfer in three-terminal graphene devices. Physical Review B, 2010, 81, .	1.1	13
50	Energy scale behind the metallic behaviors in low-density Si MOSFETs. Physical Review B, 2010, 81, .	1.1	25
51	Existe-t-il des mÃ©taux Ã deux dimensions ?. , 2010, , 6-10.	0.1	1
52	Spin Torque and Waviness in Magnetic Multilayers: A Bridge between Valet-Fert Theory and Quantum Approaches. Physical Review Letters, 2009, 103, 066602.	2.9	30
53	Many-Body Localization Study in Low-Density Electron Gases: Do Metals Exist in Two Dimensions?. Physical Review Letters, 2008, 101, 226803.	2.9	13
54	Numerical Finite Size Scaling Approach to Many-Body Localization. Physical Review Letters, 2008, 100, 076602.	2.9	8

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55	Quantum melting of a crystal of dipolar bosons. Physical Review B, 2007, 76, .	1.1	46
56	Variational Wave Functions and Their Overlap with the Ground State. Physical Review Letters, 2007, 99, 030403.	2.9	11
57	Hybrid Phase at the Quantum Melting of the Wigner Crystal. Physical Review Letters, 2005, 94, 046801.	2.9	27
58	Magnetic exchange interaction induced by a Josephson current. Physical Review B, 2002, 65, .	1.1	83
59	From the Fermi Liquid towards the Wigner Solid in Two Dimensions. , 2002, , 263-307.		2
60	Role of spin-dependent interface scattering in generating current-induced torques in magnetic multilayers. Physical Review B, 2000, 62, 12317-12327.	1.1	265
61	New Quantum Phase between the Fermi Glass and the Wigner Crystal in Two Dimensions. Physical Review Letters, 1999, 83, 1826-1829.	2.9	63