

# Florian Libisch

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

82 papers	4,623 citations	31 h-index	67 g-index
89 ext. papers	5,485 ext. citations	8.5 avg, IF	5.62 L-index

#	Paper	IF	Citations
82	The speed limit of optoelectronics.. <i>Nature Communications</i> , <b>2022</b> , 13, 1620	17.4	3
81	Challenges of modeling nanostructured materials for photocatalytic water splitting.. <i>Chemical Society Reviews</i> , <b>2022</b> ,	58.5	5
80	Time-Dependent Screening Explains the Ultrafast Excitonic Signal Rise in 2D Semiconductors. <i>ACS Nano</i> , <b>2021</b> , 15, 1179-1185	16.7	7
79	Phonon renormalization in reconstructed MoS <sub>2</sub> moiré superlattices. <i>Nature Materials</i> , <b>2021</b> , 20, 1100-1105	27	31
78	Mirror symmetry breaking and lateral stacking shifts in twisted trilayer graphene. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	11
77	Local embedding of coupled cluster theory into the random phase approximation using plane waves. <i>Journal of Chemical Physics</i> , <b>2021</b> , 154, 011101	3.9	12
76	Electrostatic Detection of Shubnikov-De Haas Oscillations in Bilayer Graphene by Coulomb Resonances in Gate-Defined Quantum Dots. <i>Physica Status Solidi (B): Basic Research</i> , <b>2020</b> , 257, 2000333	1.3	5
75	Secondary Electron Emission by Plasmon-Induced Symmetry Breaking in Highly Oriented Pyrolytic Graphite. <i>Physical Review Letters</i> , <b>2020</b> , 125, 196603	7.4	3
74	Observation of the Spin-Orbit Gap in Bilayer Graphene by One-Dimensional Ballistic Transport. <i>Physical Review Letters</i> , <b>2020</b> , 124, 177701	7.4	20
73	Band Nesting in Two-Dimensional Crystals: An Exceptionally Sensitive Probe of Strain. <i>Nano Letters</i> , <b>2020</b> , 20, 4242-4248	11.5	14
72	Energy landscapes of graphene under general deformations: DFT-to-hyperelasticity upscaling. <i>International Journal of Engineering Science</i> , <b>2020</b> , 154, 103342	5.7	6
71	Electron-Hole Crossover in Gate-Controlled Bilayer Graphene Quantum Dots. <i>Nano Letters</i> , <b>2020</b> , 20, 7709-7715	11.5	17
70	A membrane theory for circular graphene sheets, based on a hyperelastic material model for large deformations. <i>Mechanics of Advanced Materials and Structures</i> , <b>2020</b> , 1-11	1.8	2
69	Atomic-Scale Carving of Nanopores into a van der Waals Heterostructure with Slow Highly Charged Ions. <i>ACS Nano</i> , <b>2020</b> , 14, 10536-10543	16.7	10
68	Two-color phase-controlled photoemission from a zero-dimensional nanostructure. <i>EPJ Web of Conferences</i> , <b>2019</b> , 205, 05004	0.3	
67	Energy of the Th nuclear clock transition. <i>Nature</i> , <b>2019</b> , 573, 243-246	50.4	78
66	Localized Intervalley Defect Excitons as Single-Photon Emitters in WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2019</b> , 123, 146401	7.4	44

65	Accurate modeling of defects in graphene transport calculations. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	9
64	Impact of Many-Body Effects on Landau Levels in Graphene. <i>Physical Review Letters</i> , <b>2018</b> , 120, 187701	7.4	12
63	Large tunable valley splitting in edge-free graphene quantum dots on boron nitride. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 392-397	28.7	40
62	Density functional embedding for periodic and nonperiodic diffusion Monte Carlo calculations. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	7
61	Topologically Nontrivial Valley States in Bilayer Graphene Quantum Point Contacts. <i>Physical Review Letters</i> , <b>2018</b> , 121, 257702	7.4	23
60	Absolute timing of the photoelectric effect. <i>Nature</i> , <b>2018</b> , 561, 374-377	50.4	43
59	Dissociative Chemisorption of O on Al(111): Dynamics on a Correlated Wave-Function-Based Potential Energy Surface. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 3271-3277	6.4	28
58	Potential Functional Embedding Theory at the Correlated Wave Function Level. 1. Mixed Basis Set Embedding. <i>Journal of Chemical Theory and Computation</i> , <b>2017</b> , 13, 1067-1080	6.4	14
57	Potential Functional Embedding Theory at the Correlated Wave Function Level. 2. Error Sources and Performance Tests. <i>Journal of Chemical Theory and Computation</i> , <b>2017</b> , 13, 1081-1093	6.4	12
56	High visibility in two-color above-threshold photoemission from tungsten nanotips in a coherent control scheme. <i>Journal of Modern Optics</i> , <b>2017</b> , 64, 1054-1060	1.1	17
55	High-harmonic generation in graphene: Interband response and the harmonic cutoff. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	42
54	Embedding for bulk systems using localized atomic orbitals. <i>Journal of Chemical Physics</i> , <b>2017</b> , 147, 034130	13.0	16
53	Coherent control of two-color above-threshold photoemission from tungsten nanotips. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 875, 042006	0.3	
52	Veselago lens and Klein collimator in disordered graphene. <i>Journal of Physics Condensed Matter</i> , <b>2017</b> , 29, 114002	1.8	10
51	Dynamically encircling an exceptional point for asymmetric mode switching. <i>Nature</i> , <b>2016</b> , 537, 76-79	50.4	414
50	Two-Color Coherent Control of Femtosecond Above-Threshold Photoemission from a Tungsten Nanotip. <i>Physical Review Letters</i> , <b>2016</b> , 117, 217601	7.4	45
49	Corrigendum to: Plasmon-Driven Dissociation of H <sub>2</sub> on Gold Nanoclusters. <i>Zeitschrift Fur Physikalische Chemie</i> , <b>2016</b> , 230, 131-132	3.1	8
48	Size quantization of Dirac fermions in graphene constrictions. <i>Nature Communications</i> , <b>2016</b> , 7, 11528	17.4	56

47	Transport through graphene nanoribbons: Suppression of transverse quantization by symmetry breaking. <i>Physica Status Solidi (B): Basic Research</i> , <b>2016</b> , 253, 2366-2372	1.3	2
46	Ultrafast electronic response of graphene to a strong and localized electric field. <i>Nature Communications</i> , <b>2016</b> , 7, 13948	17.4	91
45	Nonlinear response of graphene to a few-cycle terahertz laser pulse: Role of doping and disorder. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	24
44	Electrostatically Confined Monolayer Graphene Quantum Dots with Orbital and Valley Splittings. <i>Nano Letters</i> , <b>2016</b> , 16, 5798-805	11.5	72
43	Dissociative Adsorption of O <sub>2</sub> on Al(111): The Role of Orientational Degrees of Freedom. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 1661-5	6.4	32
42	Percolating states in the topological Anderson insulator. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	9
41	Magneto-optical response of graphene: Probing substrate interactions. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	14
40	Implementation of density functional embedding theory within the projector-augmented-wave method and applications to semiconductor defect states. <i>Journal of Chemical Physics</i> , <b>2015</b> , 143, 102806	3.9	34
39	Numerical Challenges in a Cholesky-Decomposed Local Correlation Quantum Chemistry Framework <b>2015</b> , 59-91		4
38	Graphene nanoribbons with wings. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 203107	3.4	0
37	Size-extensivity-corrected multireference configuration interaction schemes to accurately predict bond dissociation energies of oxygenated hydrocarbons. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 044317	3.9	75
36	Analysis of and remedies for unphysical ground states of the multireference averaged coupled-pair functional. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 024102	3.9	6
35	Angular momentum dependent orbital-free density functional theory: Formulation and implementation. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	15
34	Embedded correlated wavefunction schemes: theory and applications. <i>Accounts of Chemical Research</i> , <b>2014</b> , 47, 2768-75	24.3	160
33	Characterizing wave functions in graphene nanodevices: Electronic transport through ultrashort graphene constrictions on a boron nitride substrate. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	36
32	Photovoltaic effect in an electrically tunable van der Waals heterojunction. <i>Nano Letters</i> , <b>2014</b> , 14, 4785-91	15	759
31	A comparison of singlet and triplet states for one- and two-dimensional graphene nanoribbons using multireference theory. <i>Theoretical Chemistry Accounts</i> , <b>2014</b> , 133, 1	1.9	51
30	The single-channel regime of transport through random media. <i>Nature Communications</i> , <b>2014</b> , 5, 3488	17.4	40

29	Diffractive-wave guiding of surface electrons on Au(111) by the herringbone reconstruction potential. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	2
28	Shared-memory parallelization of a local correlation multi-reference CI program. <i>Computer Physics Communications</i> , <b>2014</b> , 185, 3175-3188	4.2	8
27	Graphene quantum dot on boron nitride: Dirac cone replica and Hofstadter butterfly. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	34
26	Time-dependent potential-functional embedding theory. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 124113	3.9	16
25	Negative quantum capacitance in graphene nanoribbons with lateral gates. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	13
24	Electron-Transfer-Induced Dissociation of H <sub>2</sub> on Gold Nanoparticles: Excited-State Potential Energy Surfaces via Embedded Correlated Wavefunction Theory. <i>Zeitschrift Fur Physikalische Chemie</i> , <b>2013</b> , 1307080003	2.1	21
23	Angular-momentum-dependent orbital-free density functional theory. <i>Physical Review Letters</i> , <b>2013</b> , 111, 066402	7.4	22
22	Hot electrons do the impossible: plasmon-induced dissociation of H <sub>2</sub> on Au. <i>Nano Letters</i> , <b>2013</b> , 13, 240-7	1.5	1091
21	The multiradical character of one- and two-dimensional graphene nanoribbons. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 2581-4	16.4	168
20	Semiclassical wave functions for open quantum billiards. <i>Physical Review E</i> , <b>2013</b> , 88, 022916	2.4	10
19	Topological insulator in the presence of spatially correlated disorder. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	20
18	Der Multiradikalcharakter ein- und zweidimensionaler Graphen-Nanobänder. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 2641-2644	3.6	21
17	Coherent transport through graphene nanoribbons in the presence of edge disorder. <i>New Journal of Physics</i> , <b>2012</b> , 14, 123006	2.9	45
16	Wave-function mapping of graphene quantum dots with soft confinement. <i>Physical Review Letters</i> , <b>2012</b> , 108, 046801	7.4	106
15	Origin of the energy barrier to chemical reactions of O <sub>2</sub> on Al(111): evidence for charge transfer, not spin selection. <i>Physical Review Letters</i> , <b>2012</b> , 109, 198303	7.4	109
14	Surface scattering and band gaps in rough waveguides and nanowires. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	9
13	Generating particlelike scattering states in wave transport. <i>Physical Review Letters</i> , <b>2011</b> , 106, 120602	7.4	31
12	Disorder scattering in graphene nanoribbons. <i>Physica Status Solidi (B): Basic Research</i> , <b>2011</b> , 248, 2598-2603	3.3	10

11	Transition to Landau levels in graphene quantum dots. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	36
10	Probing decoherence through Fano resonances. <i>Physical Review Letters</i> , <b>2010</b> , 105, 056801	7.4	51
9	Electron-hole crossover in graphene quantum dots. <i>Physical Review Letters</i> , <b>2009</b> , 103, 046810	7.4	105
8	Graphene quantum dots: Beyond a Dirac billiard. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	133
7	Decreasing excitation gap in Andreev billiards by disorder scattering. <i>Europhysics Letters</i> , <b>2008</b> , 82, 47006.6	6.6	3
6	Chladni figures in Andreev billiards. <i>European Physical Journal: Special Topics</i> , <b>2007</b> , 145, 245-254	2.3	1
5	Non-retracing orbits in Andreev billiards. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	4
4	A Modular Method for the Efficient Calculation of Ballistic Transport Through Quantum Billiards. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 586-593	0.9	1
3	Fano resonances and decoherence in transport through quantum dots. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2005</b> , 29, 325-333	3	12
2	Bound states in Andreev billiards with soft walls. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	8
1	Tunable Fano resonances in transport through microwave billiards. <i>Physical Review E</i> , <b>2004</b> , 69, 046208	2.4	43