Michael Fogler

List of Publications by Year
in descending order

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161 papers	14,559 citations	31902 53 h-index	18606 119 g-index
165 all docs	165 docs citations	165 times ranked	10556 citing authors

#	Article	IF	Citations
1	Gate-tuning of graphene plasmons revealed by infrared nano-imaging. Nature, 2012, 487, 82-85.	13.7	1,780
2	Tunable Phonon Polaritons in Atomically Thin van der Waals Crystals of Boron Nitride. Science, 2014, 343, 1125-1129.	6.0	957
3	Polaritons in van der Waals materials. Science, 2016, 354, .	6.0	799
4	Sub-diffractional volume-confined polaritons in the natural hyperbolic material hexagonal boron nitride. Nature Communications, 2014, 5, 5221.	5.8	686
5	Graphene on hexagonal boron nitride as a tunable hyperbolic metamaterial. Nature Nanotechnology, 2015, 10, 682-686.	15.6	526
6	Infrared Nanoscopy of Dirac Plasmons at the Grapheneâ€“SiO₂ Interface. Nano Letters, 2011, 11, 4701-4705.	4.5	500
7	Charge Density Wave in Two-Dimensional Electron Liquid in Weak Magnetic Field. Physical Review Letters, 1996, 76, 499-502.	2.9	429
8	High-temperature superfluidity with indirect excitons in van der Waals heterostructures. Nature Communications, 2014, 5, 4555.	5.8	413
9	Fundamental limits to graphene plasmonics. Nature, 2018, 557, 530-533.	13.7	401
10	Subdiffractional focusing and guiding of polaritonic rays in a natural hyperbolic material. Nature Communications, 2015, 6, 6963.	5.8	340
11	Ground state of a two-dimensional electron liquid in a weak magnetic field. Physical Review B, 1996, 54, 1853-1871.	1.1	329
12	Ultrafast optical switching of infrared plasmon polaritons in high-mobility graphene. Nature Photonics, 2016, 10, 244-247.	15.6	312
13	Ultralow-loss polaritons in isotopically pure boronÂnitride. Nature Materials, 2018, 17, 134-139.	13.3	291
14	Photonic crystals for nano-light in moirÃ© graphene superlattices. Science, 2018, 362, 1153-1156.	6.0	273
15	Determination of the electronic structure of bilayer graphene from infrared spectroscopy. Physical Review B, 2008, 78, .	1.1	263
16	Spontaneous coherence in a cold exciton gas. Nature, 2012, 483, 584-588.	13.7	263
17	Electronic and plasmonic phenomena at graphene grain boundaries. Nature Nanotechnology, 2013, 8, 821-825.	15.6	226
18	Colloquium: Graphene spectroscopy. Reviews of Modern Physics, 2014, 86, 959-994.	16.4	220

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19	Imaging viscous flow of the Dirac fluid in graphene. Nature, 2020, 583, 537-541.	13.7	213
20	Edge and Surface Plasmons in Graphene Nanoribbons. Nano Letters, 2015, 15, 8271-8276.	4.5	162
21	Ultrafast and Nanoscale Plasmonic Phenomena in Exfoliated Graphene Revealed by Infrared Pumpâ€“Probe Nanoscopy. Nano Letters, 2014, 14, 894-900.	4.5	158
22	Pseudomagnetic Fields and Ballistic Transport in a Suspended Graphene Sheet. Physical Review Letters, 2008, 101, 226804.	2.9	152
23	Nonlinear Screening and Ballistic Transport in a Graphene<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mtext mathvariant="normal">â^’</mml:mtext><mml:mi>n</mml:mi></mml:math>Junction. Physical Review Letters, 2008, 100, 116804.	2.9	142
24	Plasmons in graphene moirÃ© superlattices. Nature Materials, 2015, 14, 1217-1222.	13.3	141
25	Model for quantitative tip-enhanced spectroscopy and the extraction of nanoscale-resolved optical constants. Physical Review B, 2014, 90, .	1.1	140
26	Indirect excitons in van der Waals heterostructures at room temperature. Nature Communications, 2018, 9, 1895.	5.8	130
27	Screening of a hypercritical charge in graphene. Physical Review B, 2007, 76, .	1.1	129
28	Anisotropic Electronic State via Spontaneous Phase Separation in Strained Vanadium Dioxide Films. Physical Review Letters, 2013, 111, 096602.	2.9	122
29	Variable-range hopping in quasi-one-dimensional electron crystals. Physical Review B, 2004, 69, .	1.1	109
30	Effect of disorder on a graphene<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>p</mml:mi><mml:mtext>â^’</mml:mtext><mml:mi>n</mml:mi></mml:mrow></mml:math>junc Physical Review B, 2008, 77, .	1.1	106
31	Imaging of Anomalous Internal Reflections of Hyperbolic Phonon-Polaritons in Hexagonal Boron Nitride. Nano Letters, 2016, 16, 3858-3865.	4.5	106
32	Laughlin liquid to charge-density-wave transition at high Landau levels. Physical Review B, 1997, 55, 9326-9329.	1.1	99
33	Interaction corrections to the polarization function of graphene. Physical Review B, 2012, 86, .	1.1	97
34	Josephson Effect without Superconductivity: Realization in Quantum Hall Bilayers. Physical Review Letters, 2001, 86, 1833-1836.	2.9	96
35	Integer Quantum Hall Effect in Trilayer Graphene. Physical Review Letters, 2011, 107, 126806.	2.9	94
36	Collapse of spin splitting in the quantum Hall effect. Physical Review B, 1995, 52, 17366-17378.	1.1	93

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37	Ultrafast Dynamics of Surface Plasmons in InAs by Time-Resolved Infrared Nanospectroscopy. Nano Letters, 2014, 14, 4529-4534.	4.5	92
38	Coherence Length of Cold Exciton Gases in Coupled Quantum Wells. Physical Review Letters, 2006, 97, 187402.	2.9	86
39	Localization-Delocalization Transition of Indirect Excitons in Lateral Electrostatic Lattices. Physical Review Letters, 2009, 102, 186803.	2.9	81
40	Near-field spectroscopy of silicon dioxide thin films. Physical Review B, 2012, 85, .	1.1	80
41	Efficiency of Launching Highly Confined Polaritons by Infrared Light Incident on a Hyperbolic Material. Nano Letters, 2017, 17, 5285-5290.	4.5	79
42	Phonon Polaritons in Monolayers of Hexagonal Boron Nitride. Advanced Materials, 2019, 31, e1806603.	11.1	73
43	Suppression of chaotic dynamics and localization of two-dimensional electrons by a weak magnetic field. Physical Review B, 1997, 56, 6823-6838.	1.1	69
44	Photonic crystal for graphene plasmons. Nature Communications, 2019, 10, 4780.	5.8	69
45	Dynamical response of a pinned two-dimensional Wigner crystal. Physical Review B, 2000, 62, 7553-7570.	1.1	66
46	Tunneling Plasmonics in Bilayer Graphene. Nano Letters, 2015, 15, 4973-4978.	4.5	64
47	Manipulation and Steering of Hyperbolic Surface Polaritons in Hexagonal Boron Nitride. Advanced Materials, 2018, 30, e1706358.	11.1	63
48	Trapping Indirect Excitons in a GaAs Quantum-Well Structure with a Diamond-Shaped Electrostatic Trap. Physical Review Letters, 2009, 103, 087403.	2.9	62
49	Optical signatures of Dirac nodal lines in NbAs ₂. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1168-1173.	3.3	60
50	Programmable hyperbolic polaritons in van der Waals semiconductors. Science, 2021, 371, 617-620.	6.0	58
51	Fizeau drag in graphene plasmonics. Nature, 2021, 594, 513-516.	13.7	57
52	Control of excitons in multi-layer van der Waals heterostructures. Applied Physics Letters, 2016, 108, .	1.5	56
53	Nanoscale Mapping and Spectroscopy of Nonradiative Hyperbolic Modes in Hexagonal Boron Nitride Nanostructures. Nano Letters, 2018, 18, 1628-1636.	4.5	55
54	Topological insulators are tunable waveguides for hyperbolic polaritons. Physical Review B, 2015, 92, .	1.1	53

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55	Charge-Transfer Plasmon Polaritons at Graphene/Î±-RuCl₃ Interfaces. Nano Letters, 2020, 20, 8438-8445.	4.5	53
56	Apparent Power-Law Behavior of Conductance in Disordered Quasi-One-Dimensional Systems. Physical Review Letters, 2010, 105, 106801.	2.9	51
57	Generalized spectral method for near-field optical microscopy. Journal of Applied Physics, 2016, 119, .	1.1	51
58	Imaging the Localized Plasmon Resonance Modes in Graphene Nanoribbons. Nano Letters, 2017, 17, 5423-5428.	4.5	51
59	Soliton superlattices in twisted hexagonal boron nitride. Nature Communications, 2019, 10, 4360.	5.8	51
60	Photoenhanced metastable c-axis electrodynamics in stripe-ordered cuprate La _{1.885} Ba _{0.115} CuO ₄. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19875-19879.	3.3	51
61	Ground-State Energy of the Electron Liquid in Ultrathin Wires. Physical Review Letters, 2005, 94, 056405.	2.9	50
62	Thermodynamic Density of States of Two-Dimensional GaAs Systems near the Apparent Metal-Insulator Transition. Physical Review Letters, 2006, 96, 216407.	2.9	50
63	Scattering of two-dimensional massless Dirac electrons by a circular potential barrier. Physical Review B, 2014, 90, .	1.1	50
64	Neutrality Point of Graphene with Coplanar Charged Impurities. Physical Review Letters, 2009, 103, 236801.	2.9	49
65	Plasmon Reflections by Topological Electronic Boundaries in Bilayer Graphene. Nano Letters, 2017, 17, 7080-7085.	4.5	48
66	Mechanical Detection and Imaging of Hyperbolic Phonon Polaritons in Hexagonal Boron Nitride. ACS Nano, 2017, 11, 8741-8746.	7.3	48
67	Effect of external conditions on the structure of scrolled graphene edges. Physical Review B, 2010, 81, .	1.1	43
68	Intrinsic Plasmonâ€“Phonon Interactions in Highly Doped Graphene: AÂNear-Field Imaging Study. Nano Letters, 2017, 17, 5908-5913.	4.5	42
69	Ultraconfined Plasmonic Hotspots Inside Graphene Nanobubbles. Nano Letters, 2016, 16, 7842-7848.	4.5	40
70	Two-dimensional electrostatic lattices for indirect excitons. Applied Physics Letters, 2012, 100, 061103.	1.5	39
71	Nonlinear screening and percolative transition in a two-dimensional electron liquid. Physical Review B, 2004, 69, .	1.1	38
72	Long-Lived Phonon Polaritons in Hyperbolic Materials. Nano Letters, 2021, 21, 5767-5773.	4.5	38

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73	Collective modes and terahertz near-field response of superconductors. Physical Review Research, 2020, 2, .	1.3	38
74	Universal linear and nonlinear electrodynamics of a Dirac fluid. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3285-3289.	3.3	37
75	Biexcitons in two-dimensional systems with spatially separated electrons and holes. Physical Review B, 2008, 78, .	1.1	36
76	Nano-photocurrent Mapping of Local Electronic Structure in Twisted Bilayer Graphene. Nano Letters, 2020, 20, 2958-2964.	4.5	34
77	Hyperbolic enhancement of photocurrent patterns in minimally twisted bilayer graphene. Nature Communications, 2021, 12, 1641.	5.8	34
78	Singular elastic strains and magnetoconductance of suspended graphene. Physical Review B, 2010, 81, .	1.1	33
79	Hamiltonian Optics of Hyperbolic Polaritons in Nanogranules. Nano Letters, 2015, 15, 4455-4460.	4.5	32
80	Infrared nanospectroscopy and imaging of collective superfluid excitations in anisotropic superconductors. Physical Review B, 2014, 90, .	1.1	31
81	Tunable Plasmonic Reflection by Bound 1D Electron States in a 2D Dirac Metal. Physical Review Letters, 2016, 117, 086801.	2.9	31
82	Femtosecond exciton dynamics in WSe2 optical waveguides. Nature Communications, 2020, 11, 3567.	5.8	31
83	Chemical potential and magnetization of a Coulomb island. Physical Review B, 1994, 49, 13767-13775.	1.1	30
84	Tuning and Persistent Switching of Graphene Plasmons on a Ferroelectric Substrate. Nano Letters, 2015, 15, 4859-4864.	4.5	29
85	Terahertz response of monolayer and few-layer WTe2 at the nanoscale. Nature Communications, 2021, 12, 5594.	5.8	29
86	Exchange interaction in quantum rings and wires in the Wigner-crystal limit. Physical Review B, 2005, 72, .	1.1	28
87	Magnetoelectric coupling, Berry phase, and Landau level dispersion in a biased bilayer graphene. Physical Review B, 2011, 84, .	1.1	28
88	Low Frequency Dynamics of DisorderedXYSpin Chains and Pinned Density Waves: From Localized Spin Waves to Soliton Tunneling. Physical Review Letters, 2002, 88, 186402.	2.9	26
89	Adiabatic Amplification of Plasmons and Demons in 2D Systems. Physical Review Letters, 2016, 117, 076805.	2.9	26
90	Probability of an Eigenvalue Number Fluctuation in an Interval of a Random Matrix Spectrum. Physical Review Letters, 1995, 74, 3312-3315.	2.9	25

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91	Electrical detection of hyperbolic phonon-polaritons in heterostructures of graphene and boron nitride. Npj 2D Materials and Applications, 2017, 1, .	3.9	25
92	Coulomb Blockade and Transport in a Chain of One-Dimensional Quantum Dots. Physical Review Letters, 2006, 97, 096601.	2.9	23
93	Non-Ohmic Variable-Range Hopping Transport in One-Dimensional Conductors. Physical Review Letters, 2005, 95, 166604.	2.9	22
94	Sum-Rule Constraints on the Surface State Conductance of Topological Insulators. Physical Review Letters, 2015, 115, 116804.	2.9	22
95	Hybrid Machine Learning for Scanning Near-Field Optical Spectroscopy. ACS Photonics, 2021, 8, 2987-2996.	3.2	22
96	Hydrodynamics of the Quantum Hall Smectics. Physical Review Letters, 2000, 84, 5828-5831.	2.9	21
97	Faraday Rotation Due to Surface States in the Topological Insulator (Bi_{1â€“x}Sb_x)₂Te₃. Nano Letters, 2017, 17, 980-984.	4.5	21
98	Localization length at the resistivity minima of the quantum Hall effect. Physical Review B, 1998, 57, 4614-4627.	1.1	20
99	Short-range correlations and spin-mode velocities in ultrathin one-dimensional conductors. Physical Review B, 2005, 71, .	1.1	20
100	Measurement of exciton correlations using electrostatic lattices. Physical Review B, 2015, 92, .	1.1	20
101	Effect of spatial resolution on the estimates of the coherence length of excitons in quantum wells. Physical Review B, 2008, 78, .	1.1	19
102	Theory of plasmon reflection by a 1D junction. Optics Express, 2018, 26, 17209.	1.7	19
103	Nanoplasmonic Phenomena at Electronic Boundaries in Graphene. ACS Photonics, 2017, 4, 2971-2977.	3.2	18
104	Third-order optical conductivity of an electron fluid. Physical Review B, 2018, 97, .	1.1	16
105	Stripe and Bubble Phases in Quantum Hall Systems. Lecture Notes in Physics, 2002, , 98-138.	0.3	15
106	Pancharatnamâ€“Berry phase in condensate of indirect excitons. Nature Communications, 2018, 9, 2158.	5.8	14
107	Resistance of a long wire in the quantum Hall regime. Physical Review B, 1994, 50, 1656-1662.	1.1	13
108	Scanned Gate Microscopy of a One-Dimensional Quantum Dot. Nano Letters, 2006, 6, 2206-2210.	4.5	13

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109	Numerical studies of variable-range hopping in one-dimensional systems. Physical Review B, 2009, 80, .	1.1	13
110	Comment on â€œScreening in gated bilayer grapheneâ€• Physical Review B, 2010, 82, .	1.1	13
111	Simple variational method for calculating energy and quantum capacitance of an electron gas with screened interactions. Physical Review B, 2010, 82, .	1.1	13
112	Universal behavior of repulsive two-dimensional fermions in the vicinity of the quantum freezing point. Europhysics Letters, 2013, 103, 16002.	0.7	13
113	Hyperbolic Cooper-Pair Polaritons in Planar Graphene/Cuprate Plasmonic Cavities. Nano Letters, 2021, 21, 308-316.	4.5	13
114	Polaritonic Vortices with a Half-Integer Charge. Nano Letters, 2021, 21, 9256-9261.	4.5	13
115	Cyclotron Resonance in a Two-Dimensional Electron Gas with Long-Range Randomness. Physical Review Letters, 1998, 80, 4749-4752.	2.9	12
116	Electrostatics of two-dimensional structures: Exact solutions and approximate methods. Physical Review B, 2004, 69, .	1.1	12
117	Concentration-dependent mobility in organic field-effect transistors probed by infrared spectromicroscopy of the charge density profile. Applied Physics Letters, 2007, 90, 222108.	1.5	12
118	Quenching of the Quantum Hall Effect in Graphene with Scrolled Edges. Physical Review Letters, 2012, 108, 166602.	2.9	12
119	Programmable Bloch polaritons in graphene. Science Advances, 2021, 7, .	4.7	12
120	Hopping transport in systems of finite thickness or length. Physical Review B, 2011, 84, .	1.1	11
121	Nanoscale Infrared Spectroscopy and Imaging of Catalytic Reactions in Cu₂O Crystals. ACS Photonics, 2020, 7, 576-580.	3.2	11
122	Effective theory of incompressible quantum Hall liquid crystals. Europhysics Letters, 2004, 66, 572-578.	0.7	10
123	Split-gate device for indirect excitons. Applied Physics Letters, 2018, 112, .	1.5	10
124	Activated conductivity in the quantum Hall effect. Surface Science, 1996, 361-362, 255-260.	0.8	9
125	QUANTUM HALL LIQUID CRYSTALS. International Journal of Modern Physics B, 2002, 16, 2924-2929.	1.0	9
126	Model of large volumetric capacitance in graphene supercapacitors based on ion clustering. Physical Review B, 2011, 84, .	1.1	9

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127	The quest for ultrafast plasmonics. Nature Nanotechnology, 2017, 12, 187-188.	15.6	9
128	Strong Metasurfaceâ€“Josephson Plasma Resonance Coupling in Superconducting La 2â^' x Sr x CuO 4. Advanced Optical Materials, 2019, 7, 1900712.	3.6	9
129	Quasiclassical approach to the weak levitation of extended states in the quantum Hall effect. Physical Review B, 1998, 57, 11947-11950.	1.1	8
130	Spin exchange in quantum rings and wires in the Wigner-crystal limit. Journal of Physics Condensed Matter, 2006, 18, L7-L13.	0.7	8
131	Thermally activated deviations from quantum Hall plateaux. Solid State Communications, 1995, 94, 503-507.	0.9	7
132	Attractive and repulsive dipolar interaction in bilayers of indirect excitons. Physical Review B, 2021, 103, .	1.1	7
133	Dynamics of disordered quantum Hall crystals. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 98-103.	1.3	5
134	Plasmonic imaging is gaining momentum. Science, 2017, 357, 132-133.	6.0	5
135	GraXe, graphene and xenon for neutrinoless double beta decay searches. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 037-037.	1.9	4
136	Graphene as a source of entangled plasmons. Physical Review Research, 2022, 4, .	1.3	4
137	Publisher's Note: Numerical studies of variable-range hopping in one-dimensional systems [Phys. Rev. B80, 155435 (2009)]. Physical Review B, 2009, 80, .	1.1	3
138	Electronic response of graphene to linelike charge perturbations. Physical Review B, 2015, 91, .	1.1	3
139	Comment on â€œAnalytic Structure of One-Dimensional Localization Theory: Reexamining Mott's Lawâ€• Physical Review Letters, 2001, 86, 4715-4715.	2.9	2
140	Effects of interactions and disorder on the compressibility of two-dimensional electron and hole systems. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 34, 240-243.	1.3	2
141	Exciton Gas Transport through Nanoconstrictions. Nano Letters, 2019, 19, 5373-5379.	4.5	2
142	Inductor coil of the highest possible $$mathbf {Q}$$. Scientific Reports, 2020, 10, 15380.	1.6	2
143	Infrared Pump-Probe Spectroscopy of Plasmons in Graphene and Semiconductors. Microscopy and Microanalysis, 2015, 21, 1415-1416.	0.2	1
144	QUANTUM HALL LIQUID CRYSTALS. , 2002, , .		1

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145	Ground and excited states of coupled exciton liquids in electron-hole quadrilayers. Physical Review B, 2021, 104, .	1.1	1
146	Localization length at the conductivity minima of the quantum Hall effect. Physica E: Low-Dimensional Systems and Nanostructures, 1997, 1, 132-134.	1.3	0
147	Unconventionally sharp dynamic resonances from a disordered Wigner crystal. European Physical Journal Special Topics, 1999, 09, Pr10-219-Pr10-221.	0.2	0
148	Exchange coupling in quantum rings and wires in the Wigner-crystal limit. European Physical Journal Special Topics, 2005, 131, 217-220.	0.2	0
149	Effects of interactions and disorder on the compressibility of two-dimensional electron and hole systems. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 343-346.	0.8	0
150	Microwaving and stirring the quantum Hall spaghetti. Physics Magazine, 2011, 4, .	0.1	0
151	Sub-diffractional, volume-confined polaritons in a natural hyperbolic material: hexagonal boron nitride (Presentation Recording). , 2015, , .		0
152	Hyperbolic phonon polaritons in hexagonal boron nitride (Conference Presentation). , 2016, , .		0
153	Pancharatnam-Berry Phase in a Condensate of Indirect Excitons. , 2018, , .		0
154	Dipolar interactions in bilayers of indirect excitons. , 2021, , .		0
155	Thermodynamic and transport properties of 2D GaAs systems near the apparent Metal-Insulator Transition. AIP Conference Proceedings, 2007, , .	0.3	0
156	Electrostatic Lattices for Indirect Excitons in Coupled Quantum Wells. , 2012, , .		0
157	Infrared Pump-Probe Imaging and Spectroscopy with 10nm Resolution. , 2014, , .		0
158	Control of excitons in multi-layer van der Waals heterostructures. , 2016, , .		0
159	Measurement of Exciton Correlations Using Electrostatic Lattices. , 2016, , .		0
160	Low-Loss Phonon Polaritons in Nanostructured Dielectrics. NATO Science for Peace and Security Series B: Physics and Biophysics, 2017, , 511-512.	0.2	0
161	Indirect excitons in van der Waals heterostructures at room temperature. , 2018, , .		0