Michael Wimmer

List of Publications by Year
in descending order

63 papers	5,239 citations	101543 36 h-index	128289 60 g-index
64 all docs	64 docs citations	64 times ranked	3805 citing authors

#	Article	IF	Citations
1	Optimizing the topological properties of semiconductor-ferromagnet-superconductor heterostructures. Physical Review B, 2022, 105, .	3.2	3
2	Conductance asymmetries in mesoscopic superconducting devices due to finite bias. SciPost Physics, 2021, 10, .	4.9	13
3	Minimal Zeeman field requirement for a topological transition in superconductors. SciPost Physics, 2021, 10, .	4.9	5
4	Quantized and unquantized zero-bias tunneling conductance peaks in Majorana nanowires: Conductance below and above <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>2</mml:mn><mml:msup><mml:mi>e</mml:mi><mml:mn Physical Review B, 2021, 103, .	3.2	41
5	Electronic properties of InAs/EuS/Al hybrid nanowires. Physical Review B, 2021, 104, .	3.2	18
6	Josephson current via an isolated Majorana zero mode. Physical Review B, 2021, 103, .	3.2	3
7	Enhanced Proximity Effect in Zigzag-Shaped Majorana Josephson Junctions. Physical Review Letters, 2020, 125, 086802.	7.8	31
8	Next steps of quantum transport in Majorana nanowire devices. Nature Communications, 2019, 10, 5128.	12.8	130
9	Unified numerical approach to topological semiconductor-superconductor heterostructures. Physical Review B, 2019, 99, .	3.2	64
10	Spin-Orbit Protection of Induced Superconductivity in Majorana Nanowires. Physical Review Letters, 2019, 122, 187702.	7.8	60
11	Reproducing topological properties with quasi-Majorana states. SciPost Physics, 2019, 7, .	4.9	164
12	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>h</mml:mi><mml:mo stretchy="false">/</mml:mo><mml:mi>e</mml:mi></mml:math> Superconducting Quantum Interference through Trivial Edge States in InAs. Physical Review Letters, 2018, 120, 047702.	7.8	33
13	Robust helical edge transport in quantum spin Hall quantum wells. Physical Review B, 2018, 98, .	3.2	28
14	Spinâ€“Orbit Interaction and Induced Superconductivity in a One-Dimensional Hole Gas. Nano Letters, 2018, 18, 6483-6488.	9.1	22
15	Engineering hybrid epitaxial InAsSb/Al nanowires for stronger topological protection. Physical Review Materials, 2018, 2, .	2.4	65
16	A general algorithm for computing bound states in infinite tight-binding systems. SciPost Physics, 2018, 4, .	4.9	12
17	Giant Spin-Orbit Splitting in Inverted<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>InAs</mml:mi><mml:mo>/</mml:mo><mml:mi>GaSb</mml:mi></mml:mrow></mml:math>D Quantum Wells. Physical Review Letters, 2017, 118, 016801.	7.8	38
18	Disorder-induced topological transitions in multichannel Majorana wires. Physical Review B, 2017, 95, .	3.2	13

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19	Conductance through a helical state in an Indium antimonide nanowire. Nature Communications, 2017, 8, 478.	12.8	76
20	Orbital Contributions to the Electron <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>g</mml:mi></mml:mrow></mml:math> Factor in Semiconductor Nanowires. Physical Review Letters, 2017, 119, 037701.	7.8	51
21	Spin-orbit interaction in a dual gated InAs/GaSb quantum well. Physical Review B, 2017, 96, .	3.2	31
22	Ballistic superconductivity in semiconductor nanowires. Nature Communications, 2017, 8, 16025.	12.8	181
23	InSb Nanowires with Built-In Ga_xIn_{1â€“x}Sb Tunnel Barriers for Majorana Devices. Nano Letters, 2017, 17, 721-727.	9.1	9
24	Quantized Conductance and Large g-Factor Anisotropy in InSb Quantum Point Contacts. Nano Letters, 2016, 16, 7509-7513.	9.1	49
25	Quantized conductance doubling and hard gap in a two-dimensional semiconductorâ€“superconductor heterostructure. Nature Communications, 2016, 7, 12841.	12.8	146
26	Effects of the electrostatic environment on the Majorana nanowire devices. New Journal of Physics, 2016, 18, 033013.	2.9	60
27	Spin-orbit interaction in InSb nanowires. Physical Review B, 2015, 91, .	3.2	125
28	Electric and Magnetic Tuning Between the Trivial and Topological Phases in InAs/GaSb Double Quantum Wells. Physical Review Letters, 2015, 115, 036803.	7.8	82
29	Kwant: a software package for quantum transport. New Journal of Physics, 2014, 16, 063065.	2.9	862
30	Effects of electron scattering on the topological properties of nanowires: Majorana fermions from disorder and superlattices. Physical Review B, 2014, 89, .	3.2	83
31	Disorder and magnetic-field-induced breakdown of helical edge conduction in an inverted electron-hole bilayer. Physical Review B, 2014, 89, .	3.2	25
32	Emergence of Massless Dirac Fermions in Grapheneâ€™s Hofstadter Butterfly at Switches of the Quantum Hall Phase Connectivity. Physical Review Letters, 2014, 112, 196602.	7.8	41
33	Electric control of tunneling energy in graphene double dots. Physical Review B, 2014, 89, .	3.2	6
34	Wigner-Poisson Statistics of Topological Transitions in a Josephson Junction. Physical Review Letters, 2013, 111, 037001.	7.8	31
35	Proposal for the detection and braiding of Majorana fermions in a quantum spin Hall insulator. Physical Review B, 2013, 87, .	3.2	64
36	Phase-locked magnetoconductance oscillations as a probe of Majorana edge states. Physical Review B, 2013, 87, .	3.2	13

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37	Universal spatial correlations in random spinor fields. Physical Review E, 2013, 87, 042115.	2.1	2
38	Spin-Polarized Quantum Transport in Mesoscopic Conductors: Computational Concepts and Physical Phenomena. , 2013, , 1-30.		1
39	A zero-voltage conductance peak from weak antilocalization in a Majorana nanowire. New Journal of Physics, 2012, 14, 125011.	2.9	247
40	Symmetries and the conductance of graphene nanoribbons with long-range disorder. Physical Review B, 2012, 85, .	3.2	37
41	Andreev reflection from a topological superconductor with chiral symmetry. Physical Review B, 2012, 86, .	3.2	46
42	Algorithm 923. ACM Transactions on Mathematical Software, 2012, 38, 1-17.	2.9	128
43	Dirac boundary condition at the reconstructed zigzag edge of graphene. Physical Review B, 2011, 84, .	3.2	43
44	Random-matrix theory of Andreev reflection from a topological superconductor. Physical Review B, 2011, 83, .	3.2	42
45	Quantum point contact as a probe of a topological superconductor. New Journal of Physics, 2011, 13, 053016.	2.9	228
46	Quantized Conductance at the Majorana Phase Transition in a Disordered Superconducting Wire. Physical Review Letters, 2011, 106, 057001.	7.8	252
47	Barrier transmission of Dirac-like pseudospin-one particles. Physical Review B, 2011, 84, .	3.2	133
48	Weak Localization in Mesoscopic Hole Transport: Berry Phases and Classical Correlations. Physical Review Letters, 2011, 106, 146801.	7.8	7
49	Graphene rings in magnetic fields: Aharonovâ€“Bohm effect and valley splitting. Semiconductor Science and Technology, 2010, 25, 034003.	2.0	93
50	Majorana Bound States without Vortices in Topological Superconductors with Electrostatic Defects. Physical Review Letters, 2010, 105, 046803.	7.8	135
51	Robustness of edge states in graphene quantum dots. Physical Review B, 2010, 82, .	3.2	154
52	Orbital effects on tunneling anisotropic magnetoresistance in Fe/GaAs/Au junctions. Physical Review B, 2009, 80, .	3.2	23
53	Interfaces within graphene nanoribbons. New Journal of Physics, 2009, 11, 095022.	2.9	38
54	Optimal block-tridiagonalization of matrices for coherent charge transport. Journal of Computational Physics, 2009, 228, 8548-8565.	3.8	51

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55	Symmetry Classes in Graphene Quantum Dots: Universal Spectral Statistics, Weak Localization, and Conductance Fluctuations. Physical Review Letters, 2009, 102, 056806.	7.8	149
56	Theory of the Topological Anderson Insulator. Physical Review Letters, 2009, 103, 196805.	7.8	311
57	Conformal mapping and shot noise in graphene. Physical Review B, 2009, 80, .	3.2	62
58	Spin-Polarized Quantum Transport in Mesoscopic Conductors: Computational Concepts and Physical Phenomena. , 2009, , 8597-8616.		1
59	Spin Currents in Rough Graphene Nanoribbons: Universal Fluctuations and Spin Injection. Physical Review Letters, 2008, 100, 177207.	7.8	288
60	Extracting current-induced spins: spin boundary conditions at narrow Hall contacts. New Journal of Physics, 2007, 9, 382-382.	2.9	15
61	Zeeman ratchets for ballistic spin currents. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4235-4238.	0.8	12
62	Biexciton recombination rates in self-assembled quantum dots. Physical Review B, 2006, 73, .	3.2	68
63	Tunneling magnetoresistance: The relevance of disorder at the interface. AIP Conference Proceedings, 2005, , .	0.4	0