

# Ulrich ZÃ¼licke

## List of Publications by Year in descending order

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126  
papers

2,450  
citations

249298

26  
h-index

274796

44  
g-index

128  
all docs

128  
docs citations

128  
times ranked

1970  
citing authors

#	ARTICLE	IF	CITATIONS
1	Anisotropic spin dynamics in semiconductor narrow wires from the interplay between spin-orbit interaction and planar magnetic field. <i>Physical Review B</i> , 2022, 105, .	1.1	2
2	Magnetoelectricity in two-dimensional materials. <i>Advances in Physics: X</i> , 2022, 7, .	1.5	4
3	Triplet character of 2D-fermion dimers arising from $s$ -wave attraction via spin-orbit coupling and Zeeman splitting. <i>SciPost Physics</i> , 2022, 12, .	1.5	0
4	Coexistence of topological and nontopological Fermi-superfluid phases. <i>Physical Review Research</i> , 2021, 3, .	1.3	2
5	Reliable modeling of weak antilocalization for accurate spin-lifetime extraction. <i>Physical Review B</i> , 2021, 104, .	1.1	1
6	Enhanced longevity of the spin helix in low-symmetry quantum wells. <i>Physical Review B</i> , 2020, 101, .	1.1	12
7	Finite-size effects in cylindrical topological insulators. <i>New Journal of Physics</i> , 2020, 22, 063042.	1.2	7
8	Chiral two-dimensional $p$ -wave superfluid from $s$ -wave pairing in the Bose-Einstein-condensate regime. <i>Physical Review A</i> , 2020, 101, .	1.0	7
9	Signatures of the Higgs mode in transport through a normal-metal-superconductor junction. <i>Physical Review Research</i> , 2020, 2, .	1.3	6
10	Collinear orbital antiferromagnetic order and magnetoelectricity in quasi-two-dimensional itinerant-electron paramagnets, ferromagnets, and antiferromagnets. <i>Physical Review Research</i> , 2020, 2, .	1.3	7
11	In-plane magnetoelectric response in bilayer graphene. <i>Physical Review B</i> , 2019, 100, .	1.1	4
12	Community structure in co-inventor networks affects time to first citation for patents. <i>Applied Network Science</i> , 2019, 4, .	0.8	4
13	<i>Ex-ante</i> measure of patent quality reveals intrinsic fitness for citation-network growth. <i>Physical Review E</i> , 2019, 99, 060301.	0.8	18
14	Spherical topological insulator nanoparticles: Quantum size effects and optical transitions. <i>Physical Review B</i> , 2019, 100, .	1.1	20
15	Dirac electrons in quantum rings. <i>Physical Review B</i> , 2018, 97, .	1.1	8
16	Accurate projective two-band description of topological superfluidity in spin-orbit-coupled Fermi gases. <i>SciPost Physics</i> , 2018, 5, .	1.5	7
17	Unconventional superconductivity from magnetism in transition-metal dichalcogenides. <i>Physical Review B</i> , 2017, 95, .	1.1	20
18	Unraveling the dynamics of growth, aging and inflation for citations to scientific articles from specific research fields. <i>Journal of Informetrics</i> , 2017, 11, 1190-1200.	1.4	26

#	ARTICLE	IF	CITATIONS
19	Universal spin dynamics in quantum wires. <i>Physical Review B</i> , 2017, 96, .	1.1	3
20	Manipulating topological-insulator properties using quantum confinement. <i>New Journal of Physics</i> , 2017, 19, 073025.	1.2	10
21	Generalized Stoner criterion and versatile spin ordering in two-dimensional spin-orbit coupled electron systems. <i>Physical Review B</i> , 2017, 96, .	1.1	9
22	Fame and obsolescence: Disentangling growth and aging dynamics of patent citations. <i>Physical Review E</i> , 2017, 95, 042309.	0.8	31
23	Longitudinal magnetoconductivity and magnetodielectric effect in bilayer graphene. <i>Journal of Physics: Conference Series</i> , 2017, 864, 012028.	0.3	1
24	Superconductivity in the ferromagnetic semiconductor samarium nitride. <i>Physical Review B</i> , 2016, 94, .	1.1	25
25	Noncollinear drag force in Bose-Einstein condensates with Weyl spin-orbit coupling. <i>Physical Review A</i> , 2016, 93, .	1.0	6
26	Reservoir interactions of a vortex in a trapped three-dimensional Bose-Einstein condensate. <i>Physical Review A</i> , 2016, 93, .	1.0	9
27	Quantum capacitance of an HgTe quantum well as an indicator of the topological phase. <i>Physical Review B</i> , 2016, 93, .	1.1	7
28	Anomalous Spin Response and Virtual-Carrier-Mediated Magnetism in a Topological Insulator. <i>Physical Review X</i> , 2016, 6, .	2.8	6
29	DISCRETE SYMMETRIES OF LOW-DIMENSIONAL DIRAC MODELS: A SELECTIVE REVIEW WITH A FOCUS ON CONDENSED-MATTER REALIZATIONS. <i>ANZIAM Journal</i> , 2015, 57, 3-17.	0.3	8
30	Multicriticality, metastability, and the roton feature in Bose-Einstein condensates with three-dimensional spin-orbit coupling. <i>Physical Review A</i> , 2015, 92, .	1.0	11
31	Electromagnetic coupling of spins and pseudospins in bilayer graphene. <i>Physical Review B</i> , 2015, 91, .	1.1	8
32	Coulomb-exchange effects in nanowires with spin splitting due to a radial electric field. <i>Physical Review B</i> , 2015, 92, .	1.1	1
33	Neutral edge modes in a superconductorâ€™topological-insulator hybrid structure in a perpendicular magnetic field. <i>Europhysics Letters</i> , 2014, 108, 17009.	0.7	1
34	Valleytronics and pseudospintronics with chiral charge carriers in two-dimensional crystals. , 2014, , .		0
35	Fragility of the fractional quantum spin Hall effect in quantum gases. <i>New Journal of Physics</i> , 2014, 16, 025006.	1.2	10
36	Signatures of tunable Majorana-fermion edge states. <i>New Journal of Physics</i> , 2014, 16, 025004.	1.2	4

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37	Valley filter from magneto-tunneling between single and bi-layer graphene. Applied Physics Letters, 2014, 104, 082401.	1.5	22
38	Noncollinear Paramagnetism of a GaAs Two-Dimensional Hole System. Physical Review Letters, 2014, 113, 236401.	2.9	9
39	Exporting superconductivity across the gap: Proximity effect for semiconductor valence-band states due to contact with a simple-metal superconductor. Physical Review B, 2014, 89, .	1.1	6
40	Magnetoelectric effect in bilayer graphene controlled by valley-isospin density. Physical Review B, 2014, 90, .	1.1	8
41	Spin susceptibility of two-dimensional transition-metal dichalcogenides. Physical Review B, 2014, 90, .	1.1	22
42	Majorana Fermions from Landau Quantization in a Superconductor and Topological-Insulator Hybrid Structure. Physical Review Letters, 2013, 110, 186805.	2.9	16
43	Anisotropic Zeeman shift in p-type GaAs quantum point contacts. Europhysics Letters, 2013, 102, 37002.	0.7	12
44	Magnetotunneling spectroscopy of chiral two-dimensional electron systems. Physical Review B, 2013, 88, .	1.1	9
45	Carrier-Density-Controlled Anisotropic Spin Susceptibility of Two-Dimensional Hole Systems. Physical Review Letters, 2013, 110, 026803.	2.9	9
46	Suppression of Coulomb exchange energy in quasi-two-dimensional hole systems. Physical Review B, 2013, 88, .	1.1	10
47	Soliton magnetization dynamics in spin-orbit-coupled Bose-Einstein condensates. Physical Review A, 2012, 85, .	1.0	69
48	Spins Made to Order in Low Dimensions. Physics Magazine, 2012, 5, .	0.1	4
49	Refraction in spacetime. American Journal of Physics, 2011, 79, 672-677.	0.3	2
50	Charge transport by modulating spin-orbit gauge fields for quasi-one-dimensional holes. Applied Physics Letters, 2011, 98, 152101.	1.5	1
51	Tracking the energies of one-dimensional sub-band edges in quantum point contacts using dc conductance measurements. Journal of Physics Condensed Matter, 2011, 23, 362201.	0.7	4
52	Band-mixing-mediated Andreev reflection of semiconductor holes. Physical Review B, 2011, 84, .	1.1	6
53	Effect of Valence-Band Mixing on Density Oscillations in 2D Hole Systems. Materials Science Forum, 2011, 700, 89-92.	0.3	0
54	Electron Beam Annealing of Fe+ Implanted Si Nanostructures. Journal of Nanoscience and Nanotechnology, 2010, 10, 6556-6561.	0.9	4

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55	AC transport properties of single and bilayer graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 755-758.	1.3	8
56	Time reversal of pseudo-spin 1/2 degrees of freedom. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2010, 374, 4003-4006.	0.9	12
57	Features due to spin-orbit coupling in the optical conductivity of single-layer graphene. <i>Physical Review B</i> , 2010, 81, .	1.1	23
58	Sign of coupling in barrier-separated Bose-Einstein condensates and stability of double-ring systems. <i>Physical Review A</i> , 2010, 81, .	1.0	19
59	Anomalous spin-related quantum phase in mesoscopic hole rings. <i>Physical Review B</i> , 2010, 81, .	1.1	6
60	Effects of a quantum measurement on the electric conductivity: Application to graphene. <i>Physical Review B</i> , 2010, 81, .	1.1	9
61	Static polarizability of two-dimensional hole gases. <i>New Journal of Physics</i> , 2010, 12, 093002.	1.2	11
62	Observation of orientation- and $k$ -dependent Zeeman spin-splitting in hole quantum wires on (100)-oriented AlGaAs/GaAs heterostructures. <i>New Journal of Physics</i> , 2010, 12, 033043.	1.2	30
63	Invariant expansion for the trigonal band structure of graphene. <i>Physical Review B</i> , 2010, 82, .	1.1	65
64	Rotational fluxons of Bose-Einstein condensates in coplanar double-ring traps. <i>Physical Review A</i> , 2009, 80, .	1.0	44
65	Spin transport and bipolaron density in organic polymers. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 415302.	0.7	0
66	Spin- $\frac{3}{2}$ physics of semiconductor hole nanowires: Valence-band mixing and tunable interplay between bulk-material and orbital bound-state spin splittings. <i>Physical Review B</i> , 2009, 79, .		
67	Zeeman splitting in cylindrical hole quantum wires. <i>Current Applied Physics</i> , 2008, 8, 237-240.	1.1	5
68	Nanospintronics meets relativistic quantum physics: Ubiquity of Zitterbewegung effects. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 1434-1435.	1.3	3
69	Quantum confinement effects on the spin splitting and polarization of quasi-1D holes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 2059-2062.	1.3	2
70	Tunable Aharonov-Anandan phase in transport through mesoscopic hole rings. <i>Physical Review B</i> , 2008, 77, .	1.1	12
71	Tailoring hole spin splitting and polarization in nanowires. <i>Applied Physics Letters</i> , 2008, 92, 023108.	1.5	13
72	Multiterminal multimode spin-dependent scattering matrix formalism: Electron and hole quantum spin transport in multiterminal junctions. <i>Physical Review B</i> , 2008, 78, .	1.1	4

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73	Hole spin relaxation in $p$ -type GaAs quantum wires investigated by numerically solving fully microscopic kinetic spin Bloch equations. Physical Review B, 2008, 78, .	1.1	12
74	LandÄ©-like formula for the $g$ -factors of hole-nanowire subband edges. Physical Review B, 2008, 78, .	1.1	16
75	Tuning the magnetic moment of charge carriers. SPIE Newsroom, 2008, , .	0.1	0
76	Magnetic focusing of charge carriers from spin-split bands: semiclassics of a Zitterbewegung effect. New Journal of Physics, 2007, 9, 355-355.	1.2	31
77	Universal characteristics of resonant-tunneling field emission from nanostructured surfaces. Journal of Applied Physics, 2007, 101, 123712.	1.1	18
78	Engineering of hole-spin polarization in nanowires. Proceedings of SPIE, 2007, , .	0.8	2
79	Oscillatory multiband dynamics of free particles: The ubiquity of Zitterbewegung effects. Physical Review B, 2007, 75, .	1.1	61
80	Large variations in the hole spin splitting of quantum-wire subband edges. Physical Review B, 2007, 76, .	1.1	29
81	Anisotropic Zeeman Splitting In Ballistic One-Dimensional Hole Systems. AIP Conference Proceedings, 2007, , .	0.3	1
82	Rashba interferometers: Spin-dependent single- and two-electron interference. Solid State Communications, 2007, 144, 529-535.	0.9	4
83	Electronic and spin properties of hole point contacts. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4354-4358.	0.8	13
84	Rashba billiards. European Physical Journal B, 2006, 54, 189-200.	0.6	13
85	Zeeman Splitting in Ballistic Hole Quantum Wires. Physical Review Letters, 2006, 97, 026403.	2.9	85
86	ZÄ¼licke and Shimshoni Reply:. Physical Review Letters, 2006, 97, .	2.9	1
87	Field Emission Resonances from Self-Assembled Silicon Nanostructures. , 2006, , .		1
88	Suppression of weak antilocalization in $GaxIn1-xAs$ narrow quantum wires. Physical Review B, 2006, 74, .	1.1	66
89	Spin-Dependent Electron Interferometers. Journal of Superconductivity and Novel Magnetism, 2005, 18, 241-244.	0.5	1
90	Rashba spin precession in quantum-Hall edge channels. Physical Review B, 2005, 71, .	1.1	28

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91	Andreev Reflection at High Magnetic Fields: Evidence for Electron and Hole Transport in Edge States. Physical Review Letters, 2005, 95, 107001.	2.9	50
92	Andreev reflection and cyclotron motion at superconductorâ€™normal-metal interfaces. Physical Review B, 2005, 72, .	1.1	34
93	Tunable entanglement generation for mobile-electron spin qubits. Applied Physics Letters, 2005, 87, 102102.	1.5	18
94	Universal Rashba spin precession of two-dimensional electrons and holes. Europhysics Letters, 2004, 65, 850-856.	0.7	34
95	Conductance oscillations in strongly correlated fractional quantum Hall line junctions. Physical Review B, 2004, 69, .	1.1	21
96	Ring-shaped Andreev billiards in quantizing magnetic fields. Physical Review B, 2004, 69, .	1.1	13
97	Two-dimensional hole precession in an all-semiconductor spin field effect transistor. Physical Review B, 2004, 69, .	1.1	39
98	Rashba spin splitting in quantum wires. Solid State Communications, 2004, 131, 581-589.	0.9	44
99	Spin interferometry with electrons in nanostructures: A road to spintronic devices. Applied Physics Letters, 2004, 85, 2616-2618.	1.5	17
100	Electronic and spin properties of Rashba billiards. Physical Review B, 2004, 70, .	1.1	26
101	Filtering Spin with Tunnel-Coupled Hole Quantum Wires. Journal of Superconductivity and Novel Magnetism, 2003, 16, 257-260.	0.5	6
102	Persistent current in ballistic mesoscopic rings with Rashba spin-orbit coupling. Physical Review B, 2003, 68, .	1.1	171
103	Fractional-quantum-Hall edge electrons and Fermi statistics. Physical Review B, 2003, 67, .	1.1	27
104	Strongly Correlated Fractional Quantum Hall Line Junctions. Physical Review Letters, 2003, 90, 026802.	2.9	17
105	Momentum-resolved tunneling: Spectroscopic tool and basis for device applications. , 2003, , 269-279.		0
106	Momentum-resolved tunneling into fractional quantum Hall edges. Physical Review B, 2002, 65, .	1.1	13
107	Probing spin-charge separation in tunnel-coupled parallel quantum wires. Physical Review B, 2002, 65, .	1.1	23
108	Filtering spin with tunnel-coupled electron wave guides. Physical Review B, 2002, 65, .	1.1	82

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109	APPLIED PHYSICS: Ultrasmall Wires Get Excited. Science, 2002, 295, 810-811.	6.0	5
110	Spin accumulation in quantum wires with strong Rashba spin-orbit coupling. Physical Review B, 2002, 66, .	1.1	202
111	Localization of the Hall resistivity at high magnetic fields: absence of the quantized Hall insulator. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 674-677.	1.3	2
112	Magnetotunneling between parallel quantum wires: from coherent oscillations to spin-charge separation. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 730-734.	1.3	1
113	Mesoscopic effects in tunneling between parallel quantum wires. Physical Review B, 2001, 64, .	1.1	31
114	Andreev reflection at superconductor-semiconductor interfaces in high magnetic fields. Physica B: Condensed Matter, 2001, 298, 453-456.	1.3	14
115	Quantum breakdown of the quantized Hall insulator. Physical Review B, 2001, 63, .	1.1	16
116	Interface Conductance of Ballistic Ferromagnetic-Metal-2DEG Hybrid Systems with Rashba Spin-Orbit Coupling. Physical Review Letters, 2001, 88, 029701.	2.9	58
117	Umklapp scattering at reconstructed quantum Hall edges. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 6, 104-107.	1.3	3
118	Andreev Reflection in Strong Magnetic Fields. Physical Review Letters, 2000, 84, 1804-1807.	2.9	89
119	Exactly Soluble Model for Umklapp Scattering at Quantum Hall Edges. Physical Review Letters, 1999, 83, 5330-5333.	2.9	7
120	Periphery deformations and tunneling at correlated quantum Hall edges. Physical Review B, 1999, 60, 1837-1841.	1.1	31
121	Observability of counterpropagating modes at fractional quantum Hall edges. Physical Review B, 1998, 58, 13778-13792.	1.1	14
122	Edge-magnetoplasmon wave-packet revivals in the quantum-Hall effect. Physical Review B, 1997, 55, 9800-9816.	1.1	10
123	Toward realistic effective models of quantum-Hall edges. Physica E: Low-Dimensional Systems and Nanostructures, 1997, 1, 105-107.	1.3	2
124	Electronic spectral functions for quantum Hall edge states. Physical Review B, 1996, 54, R8349-R8352.	1.1	17
125	Plasmon modes and correlation functions in quantum wires and Hall bars. Physical Review B, 1996, 54, 16813-16819.	1.1	26
126	Specific heat of a three-dimensional metal near a zero-temperature magnetic phase transition with dynamic exponent $z=2, 3, \text{ or } 4$ . Physical Review B, 1995, 51, 8996-9004.	1.1	76