

# Ulrich ZÃ¼licke

## List of Publications by Year in descending order

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126  
papers

2,450  
citations

218677

26  
h-index

243625

44  
g-index

128  
all docs

128  
docs citations

128  
times ranked

1820  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin accumulation in quantum wires with strong Rashba spin-orbit coupling. Physical Review B, 2002, 66, .	3.2	202
2	Persistent current in ballistic mesoscopic rings with Rashba spin-orbit coupling. Physical Review B, 2003, 68, .	3.2	171
3	Andreev Reflection in Strong Magnetic Fields. Physical Review Letters, 2000, 84, 1804-1807.	7.8	89
4	Zeeman Splitting in Ballistic Hole Quantum Wires. Physical Review Letters, 2006, 97, 026403.	7.8	85
5	Filtering spin with tunnel-coupled electron wave guides. Physical Review B, 2002, 65, .	3.2	82
6	Specific heat of a three-dimensional metal near a zero-temperature magnetic phase transition with dynamic exponent $z=2, 3$ , or $4$ . Physical Review B, 1995, 51, 8996-9004.	3.2	76
7	Soliton magnetization dynamics in spin-orbit-coupled Bose-Einstein condensates. Physical Review A, 2012, 85, .	2.5	69
8	Suppression of weak antilocalization in $\text{GaInAs}/\text{InP}$ narrow quantum wires. Physical Review B, 2006, 74, .	3.2	66
9	Invariant expansion for the trigonal band structure of graphene. Physical Review B, 2010, 82, .	3.2	65
10	Oscillatory multiband dynamics of free particles: The ubiquity of zitterbewegung effects. Physical Review B, 2007, 75, .	3.2	61
11	Interface Conductance of Ballistic Ferromagnetic-Metal-2DEG Hybrid Systems with Rashba Spin-Orbit Coupling. Physical Review Letters, 2001, 88, 029701.	7.8	58
12	Andreev Reflection at High Magnetic Fields: Evidence for Electron and Hole Transport in Edge States. Physical Review Letters, 2005, 95, 107001.	7.8	50
13	Rashba spin splitting in quantum wires. Solid State Communications, 2004, 131, 581-589.	1.9	44
14	Rotational fluxons of Bose-Einstein condensates in coplanar double-ring traps. Physical Review A, 2009, 80, .	2.5	44
15	Spin- $\frac{3}{2}$ physics of semiconductor hole nanowires: Valence-band mixing and tunable interplay between bulk-material and orbital bound state spin splittings. Physical Review B, 2009, 79, .		
16	Two-dimensional hole precession in an all-semiconductor spin field effect transistor. Physical Review B, 2004, 69, .	3.2	39
17	Universal Rashba spin precession of two-dimensional electrons and holes. Europhysics Letters, 2004, 65, 850-856.	2.0	34
18	Andreev reflection and cyclotron motion at superconductor-normal-metal interfaces. Physical Review B, 2005, 72, .	3.2	34

#	ARTICLE	IF	CITATIONS
19	Periphery deformations and tunneling at correlated quantum Hall edges. Physical Review B, 1999, 60, 1837-1841.	3.2	31
20	Mesoscopic effects in tunneling between parallel quantum wires. Physical Review B, 2001, 64, .	3.2	31
21	Magnetic focusing of charge carriers from spin-split bands: semiclassics of a Zitterbewegung effect. New Journal of Physics, 2007, 9, 355-355.	2.9	31
22	Fame and obsolescence: Disentangling growth and aging dynamics of patent citations. Physical Review E, 2017, 95, 042309.	2.1	31
23	Observation of orientation- and $k_z$ -dependent Zeeman spin-splitting in hole quantum wires on (100)-oriented AlGaAs/GaAs heterostructures. New Journal of Physics, 2010, 12, 033043.	2.9	30
24	Large variations in the hole spin splitting of quantum-wire subband edges. Physical Review B, 2007, 76, .	3.2	29
25	Rashba spin precession in quantum-Hall edge channels. Physical Review B, 2005, 71, .	3.2	28
26	Fractional-quantum-Hall edge electrons and Fermi statistics. Physical Review B, 2003, 67, .	3.2	27
27	Plasmon modes and correlation functions in quantum wires and Hall bars. Physical Review B, 1996, 54, 16813-16819.	3.2	26
28	Electronic and spin properties of Rashba billiards. Physical Review B, 2004, 70, .	3.2	26
29	Unraveling the dynamics of growth, aging and inflation for citations to scientific articles from specific research fields. Journal of Informetrics, 2017, 11, 1190-1200.	2.9	26
30	Superconductivity in the ferromagnetic semiconductor samarium nitride. Physical Review B, 2016, 94, .	3.2	25
31	Probing spin-charge separation in tunnel-coupled parallel quantum wires. Physical Review B, 2002, 65, .	3.2	23
32	Features due to spin-orbit coupling in the optical conductivity of single-layer graphene. Physical Review B, 2010, 81, .	3.2	23
33	Valley filter from magneto-tunneling between single and bi-layer graphene. Applied Physics Letters, 2014, 104, 082401.	3.3	22
34	Spin susceptibility of two-dimensional transition-metal dichalcogenides. Physical Review B, 2014, 90, .	3.2	22
35	Conductance oscillations in strongly correlated fractional quantum Hall line junctions. Physical Review B, 2004, 69, .	3.2	21
36	Unconventional superconductivity from magnetism in transition-metal dichalcogenides. Physical Review B, 2017, 95, .	3.2	20

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37	Spherical topological insulator nanoparticles: Quantum size effects and optical transitions. Physical Review B, 2019, 100, .	3.2	20
38	Sign of coupling in barrier-separated Bose-Einstein condensates and stability of double-ring systems. Physical Review A, 2010, 81, .	2.5	19
39	Tunable entanglement generation for mobile-electron spin qubits. Applied Physics Letters, 2005, 87, 102102.	3.3	18
40	Universal characteristics of resonant-tunneling field emission from nanostructured surfaces. Journal of Applied Physics, 2007, 101, 123712.	2.5	18
41	<i>Ex-ante</i> measure of patent quality reveals intrinsic fitness for citation-network growth. Physical Review E, 2019, 99, 060301.	2.1	18
42	Electronic spectral functions for quantum Hall edge states. Physical Review B, 1996, 54, R8349-R8352.	3.2	17
43	Strongly Correlated Fractional Quantum Hall Line Junctions. Physical Review Letters, 2003, 90, 026802.	7.8	17
44	Spin interferometry with electrons in nanostructures: A road to spintronic devices. Applied Physics Letters, 2004, 85, 2616-2618.	3.3	17
45	Quantum breakdown of the quantized Hall insulator. Physical Review B, 2001, 63, .	3.2	16
46	Landau-like formula for the <math>g</math> factors of hole-nanowire subband edges. Physical Review B, 2008, 78, .	3.2	16
47	Majorana Fermions from Landau Quantization in a Superconductor and Topological-Insulator Hybrid Structure. Physical Review Letters, 2013, 110, 186805.	7.8	16
48	Observability of counterpropagating modes at fractional quantum Hall edges. Physical Review B, 1998, 58, 13778-13792.	3.2	14
49	Andreev reflection at superconductor-semiconductor interfaces in high magnetic fields. Physica B: Condensed Matter, 2001, 298, 453-456.	2.7	14
50	Momentum-resolved tunneling into fractional quantum Hall edges. Physical Review B, 2002, 65, .	3.2	13
51	Ring-shaped Andreev billiards in quantizing magnetic fields. Physical Review B, 2004, 69, .	3.2	13
52	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
53	Rashba billiards. European Physical Journal B, 2006, 54, 189-200.	1.5	13
54	Tailoring hole spin splitting and polarization in nanowires. Applied Physics Letters, 2008, 92, 023108.	3.3	13

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55	Tunable Aharonov-Anandan phase in transport through mesoscopic hole rings. Physical Review B, 2008, 77, .	3.2	12
56	Hole spin relaxation in $p$ -type GaAs quantum wires investigated by numerically solving fully microscopic kinetic spin Bloch equations. Physical Review B, 2008, 78, .	3.2	12
57	Time reversal of pseudo-spin 1/2 degrees of freedom. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4003-4006.	2.1	12
58	Anisotropic Zeeman shift in $p$ -type GaAs quantum point contacts. Europhysics Letters, 2013, 102, 37002.	2.0	12
59	Enhanced longevity of the spin helix in low-symmetry quantum wells. Physical Review B, 2020, 101, .	3.2	12
60	Static polarizability of two-dimensional hole gases. New Journal of Physics, 2010, 12, 093002.	2.9	11
61	Multicriticality, metastability, and the roton feature in Bose-Einstein condensates with three-dimensional spin-orbit coupling. Physical Review A, 2015, 92, .	2.5	11
62	Edge-magnetoplasmon wave-packet revivals in the quantum-Hall effect. Physical Review B, 1997, 55, 9800-9816.	3.2	10
63	Suppression of Coulomb exchange energy in quasi-two-dimensional hole systems. Physical Review B, 2013, 88, .	3.2	10
64	Fragility of the fractional quantum spin Hall effect in quantum gases. New Journal of Physics, 2014, 16, 025006.	2.9	10
65	Manipulating topological-insulator properties using quantum confinement. New Journal of Physics, 2017, 19, 073025.	2.9	10
66	Effects of a quantum measurement on the electric conductivity: Application to graphene. Physical Review B, 2010, 81, .	3.2	9
67	Magnetotunneling spectroscopy of chiral two-dimensional electron systems. Physical Review B, 2013, 88, .	3.2	9
68	Carrier-Density-Controlled Anisotropic Spin Susceptibility of Two-Dimensional Hole Systems. Physical Review Letters, 2013, 110, 026803.	7.8	9
69	Noncollinear Paramagnetism of a GaAs Two-Dimensional Hole System. Physical Review Letters, 2014, 113, 236401.	7.8	9
70	Reservoir interactions of a vortex in a trapped three-dimensional Bose-Einstein condensate. Physical Review A, 2016, 93, .	2.5	9
71	Generalized Stoner criterion and versatile spin ordering in two-dimensional spin-orbit coupled electron systems. Physical Review B, 2017, 96, .	3.2	9
72	AC transport properties of single and bilayer graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 755-758.	2.7	8

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73	Magnetoelectric effect in bilayer graphene controlled by valley-isospin density. Physical Review B, 2014, 90, .	3.2	8
74	DISCRETE SYMMETRIES OF LOW-DIMENSIONAL DIRAC MODELS: A SELECTIVE REVIEW WITH A FOCUS ON CONDENSED-MATTER REALIZATIONS. ANZIAM Journal, 2015, 57, 3-17.	0.2	8
75	Electromagnetic coupling of spins and pseudospins in bilayer graphene. Physical Review B, 2015, 91, .	3.2	8
76	Dirac electrons in quantum rings. Physical Review B, 2018, 97, .	3.2	8
77	Exactly Soluble Model for Umklapp Scattering at Quantum Hall Edges. Physical Review Letters, 1999, 83, 5330-5333.	7.8	7
78	Quantum capacitance of an HgTe quantum well as an indicator of the topological phase. Physical Review B, 2016, 93, .	3.2	7
79	Finite-size effects in cylindrical topological insulators. New Journal of Physics, 2020, 22, 063042.	2.9	7
80	Chiral two-dimensional $p$ -wave superfluid from $s$ -wave pairing in the Bose-Einstein-condensate regime. Physical Review A, 2020, 101, .	2.5	7
81	Collinear orbital antiferromagnetic order and magnetoelectricity in quasi-two-dimensional itinerant-electron paramagnets, ferromagnets, and antiferromagnets. Physical Review Research, 2020, 2, .	3.6	7
82	Accurate projective two-band description of topological superfluidity in spin-orbit-coupled Fermi gases. SciPost Physics, 2018, 5, .	4.9	7
83	Filtering Spin with Tunnel-Coupled Hole Quantum Wires. Journal of Superconductivity and Novel Magnetism, 2003, 16, 257-260.	0.5	6
84	Anomalous spin-related quantum phase in mesoscopic hole rings. Physical Review B, 2010, 81, .	3.2	6
85	Band-mixing-mediated Andreev reflection of semiconductor holes. Physical Review B, 2011, 84, .	3.2	6
86	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, .	3.2	6
87	Noncollinear drag force in Bose-Einstein condensates with Weyl spin-orbit coupling. Physical Review A, 2016, 93, .	2.5	6
88	Anomalous Spin Response and Virtual-Carrier-Mediated Magnetism in a Topological Insulator. Physical Review X, 2016, 6, .	8.9	6
89	Signatures of the Higgs mode in transport through a normal-metal-superconductor junction. Physical Review Research, 2020, 2, .	3.6	6
90	APPLIED PHYSICS: Ultrasmall Wires Get Excited. Science, 2002, 295, 810-811.	12.6	5

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91	Zeeman splitting in cylindrical hole quantum wires. <i>Current Applied Physics</i> , 2008, 8, 237-240.	2.4	5
92	Rashba interferometers: Spin-dependent single- and two-electron interference. <i>Solid State Communications</i> , 2007, 144, 529-535.	1.9	4
93	Multiterminal multimode spin-dependent scattering matrix formalism: Electron and hole quantum spin transport in multiterminal junctions. <i>Physical Review B</i> , 2008, 78, .	3.2	4
94	Electron Beam Annealing of Fe+ Implanted Si Nanostructures. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 6556-6561.	0.9	4
95	Tracking the energies of one-dimensional sub-band edges in quantum point contacts using dc conductance measurements. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 362201.	1.8	4
96	Spins Made to Order in Low Dimensions. <i>Physics Magazine</i> , 2012, 5, .	0.1	4
97	Signatures of tunable Majorana-fermion edge states. <i>New Journal of Physics</i> , 2014, 16, 025004.	2.9	4
98	In-plane magnetoelectric response in bilayer graphene. <i>Physical Review B</i> , 2019, 100, .	3.2	4
99	Community structure in co-inventor networks affects time to first citation for patents. <i>Applied Network Science</i> , 2019, 4, .	1.5	4
100	Magnetoelectricity in two-dimensional materials. <i>Advances in Physics: X</i> , 2022, 7, .	4.1	4
101	Umklapp scattering at reconstructed quantum Hall edges. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 6, 104-107.	2.7	3
102	Nanospintronics meets relativistic quantum physics: Ubiquity of Zitterbewegung effects. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 1434-1435.	2.7	3
103	Universal spin dynamics in quantum wires. <i>Physical Review B</i> , 2017, 96, .	3.2	3
104	Toward realistic effective models of quantum-Hall edges. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 1997, 1, 105-107.	2.7	2
105	Localization of the Hall resistivity at high magnetic fields: absence of the quantized Hall insulator. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 12, 674-677.	2.7	2
106	Engineering of hole-spin polarization in nanowires. <i>Proceedings of SPIE</i> , 2007, , .	0.8	2
107	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.	2.7	2
108	Refraction in spacetime. <i>American Journal of Physics</i> , 2011, 79, 672-677.	0.7	2

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109	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, .	3.2	2
110	Coexistence of topological and nontopological Fermi-superfluid phases. <i>Physical Review Research</i> , 2021, 3, .	3.6	2
111	Magnetotunneling between parallel quantum wires: from coherent oscillations to spin-charge separation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 12, 730-734.	2.7	1
112	Spin-Dependent Electron Interferometers. <i>Journal of Superconductivity and Novel Magnetism</i> , 2005, 18, 241-244.	0.5	1
113	ZÄ¼licke and Shimshoni Reply:. <i>Physical Review Letters</i> , 2006, 97, .	7.8	1
114	Field Emission Resonances from Self-Assembled Silicon Nanostructures. , 2006, , .		1
115	Anisotropic Zeeman Splitting In Ballistic One-Dimensional Hole Systems. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	1
116	Charge transport by modulating spin-orbit gauge fields for quasi-one-dimensional holes. <i>Applied Physics Letters</i> , 2011, 98, 152101.	3.3	1
117	Neutral edge modes in a superconductor-topological-insulator hybrid structure in a perpendicular magnetic field. <i>Europhysics Letters</i> , 2014, 108, 17009.	2.0	1
118	Coulomb-exchange effects in nanowires with spin splitting due to a radial electric field. <i>Physical Review B</i> , 2015, 92, .	3.2	1
119	Longitudinal magnetoconductivity and magnetodielectric effect in bilayer graphene. <i>Journal of Physics: Conference Series</i> , 2017, 864, 012028.	0.4	1
120	Reliable modeling of weak antilocalization for accurate spin-lifetime extraction. <i>Physical Review B</i> , 2021, 104, .	3.2	1
121	Spin transport and bipolaron density in organic polymers. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 415302.	1.8	0
122	Effect of Valence-Band Mixing on Density Oscillations in 2D Hole Systems. <i>Materials Science Forum</i> , 2011, 700, 89-92.	0.3	0
123	Valleytronics and pseudospintronics with chiral charge carriers in two-dimensional crystals. , 2014, , .		0
124	Momentum-resolved tunneling: Spectroscopic tool and basis for device applications. , 2003, , 269-279.		0
125	Tuning the magnetic moment of charge carriers. <i>SPIE Newsroom</i> , 2008, , .	0.1	0
126	Triplet character of 2D-fermion dimers arising from $s$ -wave attraction via spin-orbit coupling and Zeeman splitting. <i>SciPost Physics</i> , 2022, 12, .	4.9	0