Steffen Wiedmann

List of Publications by Year
in descending order

71 papers	6,870 citations	331670 21 h-index	102487 66 g-index
72 all docs	72 docs citations	72 times ranked	7794 citing authors

#	Article	IF	Citations
1	Quantum Spin Hall Insulator State in HgTe Quantum Wells. Science, 2007, 318, 766-770.	12.6	5,070
2	Interaction phenomena in graphene seen through quantum capacitance. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3282-3286.	7.1	239
3	Unconventional mass enhancement around the Dirac nodal loop in ZrSiS. Nature Physics, 2018, 14, 178-183.	16.7	129
4	Evolution of the Fermi surface of a doped topological insulator with carrier concentration. Physical Review B, 2013, 88, .	3.2	92
5	Tuning the valley and chiral quantum state of Dirac electrons in van der Waals heterostructures. Science, 2016, 353, 575-579.	12.6	88
6	Tracking Structural Phase Transitions in Leadâ€Halide Perovskites by Means of Thermal Expansion. Advanced Materials, 2019, 31, e1900521.	21.0	88
7	Fermi-surface transformation across the pseudogap critical point of the cuprate superconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>La</mml:mi><mml:mrow><mml:mn>1.6< Physical Review B, 2017, 95, .	3.2	78
8	Interference oscillations of microwave photoresistance in double quantum wells. Physical Review B, 2008, 78, .	3.2	74
9	Tuning the Structural and Optoelectronic Properties of Cs₂AgBiBr₆ Doubleâ€Perovskite Single Crystals through Alkaliâ€Metal Substitution. Advanced Materials, 2020, 32, e2001878.	21.0	72
10	Microwave Zero-Resistance States in a Bilayer Electron System. Physical Review Letters, 2010, 105, 026804.	7.8	62
11	Anisotropic and strong negative magnetoresistance in the three-dimensional topological insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>Se₃. Physical Review B, 2016, 94, .	3.2	59
12	Observation of an Odd-Integer Quantum Hall Effect from Topological Surface States in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Cd</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>As₂. Physical Review Letters, 2019, 122, 036602.	7.8	50
13	Magnetothermoelectric properties of Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	49
14	Probing the surface states in Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>using the Shubnikovâ€“de Haas effect. Physical Review B, 2012, 86, .	3.2	48
15	Linear Magnetoresistance in a Quasifree Two-Dimensional Electron Gas in an Ultrahigh Mobility GaAs Quantum Well. Physical Review Letters, 2016, 117, 256601.	7.8	47
16	Magnetoresistance oscillations in multilayer systems: Triple quantum wells. Physical Review B, 2009, 80, .	3.2	35
17	Electron-Hole Tunneling Revealed by Quantum Oscillations in the Nodal-Line Semimetal HfSiS. Physical Review Letters, 2018, 121, 256602.	7.8	33
18	High field charge order across the phase diagram of YBa2Cu3Oy. Npj Quantum Materials, 2018, 3, .	5.2	32

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19	Crossover between distinct mechanisms of microwave photoresistance in bilayer systems. Physical Review B, 2010, 81, .	3.2	29
20	Temperature-driven transition from a semiconductor to a topological insulator. Physical Review B, 2015, 91, .	3.2	29
21	Coexistence of electron and hole transport in graphene. Physical Review B, 2011, 84, .	3.2	23
22	The worldâ€™s smallest capacitive dilatometer, for high-resolution thermal expansion and magnetostriction in high magnetic fields. Review of Scientific Instruments, 2017, 88, 083903.	1.3	23
23	Thermopower across the phase diagram of the cuprate La1.6â^'xNd0.4SrxCuO4 : Signatures of the pseudogap and charge density wave phases. Physical Review B, 2021, 103, .	3.2	21
24	Nonlinear transport phenomena in a two-subband system. Physical Review B, 2011, 84, .	3.2	20
25	High-temperature quantum Hall effect in finite gapped HgTe quantum wells. Physical Review B, 2016, 93, .	3.2	19
26	Coexistence of bulk and surface states probed by Shubnikovâ€“de Haas oscillations in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Se</mml:mi></mml:mrow></mml:math> with high charge-carrier density. Physical Review B, 2017, 96, .	3.2	19
27	Shubnikovâ€“de Haas oscillations in topological crystalline insulator SnTe(111) epitaxial films. Physical Review B, 2018, 98, .	3.2	19
28	Thermodynamic signatures of the field-induced states of graphite. Nature Communications, 2017, 8, 1337.	12.8	17
29	High-temperature quantum oscillations of the Hall resistance in bulk Bi2Se3. Scientific Reports, 2018, 8, 485.	3.3	17
30	High-order fractional microwave-induced resistance oscillations in two-dimensional systems. Physical Review B, 2009, 80, .	3.2	16
31	Lifting of the Landau level degeneracy in graphene devices in a tilted magnetic field. Physical Review B, 2015, 92, .	3.2	16
32	Electronâ€“hole asymmetry of the topological surface states in strained HgTe. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3381-3386.	7.1	16
33	Thermally activated intersubband scattering and oscillating magnetoresistance in quantum wells. Physical Review B, 2010, 82, .	3.2	15
34	Light- and Temperature-Modulated Magneto-Transport in Organicâ€“Inorganic Lead Halide Perovskites. ACS Energy Letters, 2018, 3, 39-45.	17.4	15
35	Transport signatures of the pseudogap critical point in the cuprate superconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Sr</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">La</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">CuO</mml:mi><mml:mrow><mml:mn>6</mml:mn></mml:m. Physical Review B, 2021, 104, .	3.2	15
36	Determination of the Fermi surface and field-induced quasiparticle tunneling around the Dirac nodal loop in ZrSiS. Physical Review Research, 2020, 2, .	3.6	15

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37	Evidence for zero-differential resistance states in electronic bilayers. Physical Review B, 2011, 83, .	3.2	14
38	Negative Thermal Expansion in the Plateau State of a Magnetically Frustrated Spinel. Physical Review Letters, 2019, 123, 027205.	7.8	13
39	Magnetotransport in single-layer graphene in a large parallel magnetic field. Physical Review B, 2016, 94, .	3.2	11
40	Insulator-to-metal crossover near the edge of the superconducting dome in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi>Se</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi>O</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi>F</mml:mi><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review Research, 2021, 3, .	3.6	11
41	Bulk and in-gap states in SmB6 revealed by high-field magnetotransport. Physical Review B, 2017, 96, .	3.2	10
42	Anomalous Shubnikov-de Haas quantum oscillations in rare-earth tritelluride <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>NdTe</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> Physical Review B, 2020, 102, .	3.2	10
43	Two- and Three-Dimensional Superconducting Phases in the Weyl Semimetal TaP at Ambient Pressure. Crystals, 2020, 10, 288.	2.2	10
44	Structural and electronic inhomogeneity of superconducting Nb-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> Physical Review B, 2021, 103, .	3.2	9
45	Transport and thermoelectric properties of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2015, 91, .	3.2	8
46	Local structure of Nb in superconducting Nb-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2021, 103, .	3.2	8
47	Giant Seebeck effect across the field-induced metal-insulator transition of InAs. Npj Quantum Materials, 2020, 5, .	5.2	8
48	Emergent and reentrant fractional quantum Hall effect in trilayer systems in a tilted magnetic field. Physical Review B, 2009, 80, .	3.2	7
49	Quantum Hall effect and Shubnikovâ€“de Haas oscillations in a high-mobility <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -type PbTe quantum well. Physical Review B, 2021, 103, .	3.2	7
50	Quantized coexisting electrons and holes in graphene measured using temperature-dependent magnetotransport. Physical Review B, 2013, 87, .	3.2	6
51	Quantum oscillations of the topological surface states in low carrier concentration crystals of <mml:math altimg="si0019.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevie. Solid State	1.9	6
52	Microwave-induced Hall resistance in bilayer electron systems. Physical Review B, 2011, 83, .	3.2	5
53	Systematic study of doping dependence on linear magnetoresistance in p-PbTe. Applied Physics Letters, 2014, 105, .	3.3	5
54	Quantum interference in a macroscopic van der Waals conductor. Physical Review B, 2017, 95, .	3.2	4

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55	Massive Magnetostriction of the Paramagnetic Insulator KEr(MoO₄)₂via a Singleâ€Ion Effect. Advanced Electronic Materials, 2022, 8, .	5.1	4
56	Magneto-intersubband oscillations in triple quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1088-1090.	2.7	3
57	Magnetoresistance in the in-plane magnetic field induced semimetallic phase of inverted HgTe quantum wells. Physical Review B, 2019, 99, .	3.2	3
58	Anomalous vortex liquid in charge-ordered cuprate superconductors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2016275118.	7.1	3
59	Evidence for strong electron correlations in a nonsymmorphic Dirac semimetal. Npj Quantum Materials, 2021, 6, .	5.2	3
60	Fractional quantum Hall effect in second subband of a 2DES. Europhysics Letters, 2011, 94, 37010.	2.0	2
61	Field-induced insulating states in a graphene superlattice. Physical Review B, 2019, 99, .	3.2	2
62	Multiple field-induced phases in the frustrated triangular magnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cs</mml:mi><mml:mn>3</mml:mn></mml:m Physical Review B, 2021, 104, .	3.2	2
63	Correlated Insulating Behavior in Infinite-Layer Nickelates. Frontiers in Physics, 2022, 10, .	2.1	2
64	Microwave induced magnetoresistance oscillations and inelastic scattering time in double quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1075-1077.	2.7	1
65	Emergent fractional quantum Hall effect at even denominatorÎ½= 3/2 in a triple quantum well in tilted magnetic fields. Journal of Physics: Conference Series, 2011, 334, 012026.	0.4	1
66	Fermi surface and nested magnetic breakdown in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>WTe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub></mml:msub></mml Physical Review Research, 2022, 4, .	3.5	1
67	MAGNETORESISTANCE OSCILLATIONS IN DOUBLE QUANTUM WELLS UNDER MICROWAVE IRRADIATION. International Journal of Modern Physics B, 2009, 23, 2943-2947.	2.0	0
68	Magnetoresistance oscillations in triple quantum wells under microwave irradiation. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2614-2617.	2.7	0
69	Integer and fractional microwave induced resistance oscillations in a 2D system with moderate mobility. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1078-1080.	2.7	0
70	Zero-resistance states in bilayer electron systems induced by microwave irradiation. Journal of Physics: Conference Series, 2011, 334, 012014.	0.4	0
71	Shubnikov-de Haas effect in tilted magnetic fields in wide quantum well. Journal of Physics: Conference Series, 2013, 456, 012025.	0.4	0