

Steffen Wirth

List of Publications by Year in descending order

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88
papers

4,038
citations

159585

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114465

63
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89
all docs

89
docs citations

89
times ranked

4562
citing authors

#	ARTICLE	IF	CITATIONS
1	Nematic state of the FeSe superconductor. Physical Review B, 2022, 105, .	3.2	3
2	Systematic suppression of parasitic conductivity highlights undistorted quantum transport in GaN/AlGaN 2DEGs. Journal of Crystal Growth, 2022, 589, 126673.	1.5	1
3	Nuclear-Order-Induced Quantum Criticality and Heavy-Fermion Superconductivity at Ultra-low Temperatures in YbRh ₂ Si ₂ . Frontiers in Electronic Materials, 2022, 2, .	3.1	3
4	Surface and electronic structure at atomic length scales of the nonsymmorphic antiferromagnet EuIn_2Sb_6 . Physical Review B, 2022, 106, .	3.2	2
5	Comparative Scanning Tunneling Microscopy Study on Hexaborides. Physica Status Solidi (B): Basic Research, 2021, 258, 2000022.	1.5	5
6	Challenges of Topological Insulator Research: Bi ₂ Te ₃ Thin Films and Magnetic Heterostructures. Physica Status Solidi (B): Basic Research, 2021, 258, 2000346.	1.5	10
7	Phase stability in SmB_6 . Physical Review Materials, 2021, 5, .	3.6	4
8	Systematic manipulation of the surface conductivity of SmB_6 . Physical Review Research, 2021, 3, .	3.6	4
9	Surface excitations relaxation in the Kondo insulator SmB_6 . Physical Review Research, 2021, 3, .	3.6	3
10	An STM Perspective on Hexaborides: Surface States of the Kondo Insulator SmB_6 . Advanced Quantum Technologies, 2021, 4, 2100102.	3.9	2
11	Visualization of localized perturbations on a (001) surface of the ferromagnetic semimetal EuB_6 . Physical Review B, 2020, 101, .	3.9	2
12	<i>Colloquium</i> : Heavy-electron quantum criticality and single-particle spectroscopy. Reviews of Modern Physics, 2020, 92, .	45.6	70
13	Revisiting the Possible $4f^7 5d^1$ Ground State of Gd Impurities in SmB_6 by Electron Spin Resonance. , 2020, . , .		1
14	Quantum and transport lifetimes in optically induced GaN/AlGa _N 2DEGs grown on bulk GaN. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2020, 38, .	1.2	7
15	Surface states in bulk single crystal of topological semimetal $\text{Co}_3\text{Sn}_2\text{S}_2$ toward water oxidation. Science Advances, 2019, 5, eaaw9867.	10.3	118
16	Dirac Nodal Arc Semimetal PtSn_4 : An Ideal Platform for Understanding Surface Properties and Catalysis for Hydrogen Evolution. Angewandte Chemie - International Edition, 2019, 58, 13107-13112.	13.8	59
17	Dirac Nodal Arc Semimetal PtSn_4 : An Ideal Platform for Understanding Surface Properties and Catalysis for Hydrogen Evolution. Angewandte Chemie, 2019, 131, 13241-13246.	2.0	28
18	Signatures for half-metallicity and nontrivial surface states in the kagome lattice Weyl semimetal $\text{Co}_3\text{Sn}_2\text{S}_2$. Physical Review B, 2019, 99, .	3.2	38

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19	Large magnetoresistance effects in Fe ₃ O ₄ . Journal of Physics Condensed Matter, 2019, 31, 225803.	1.8	3
20	Two types of magnetic shape-memory effects from twinned microstructure and magneto-structural coupling in Fe _{1+y} Te. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16697-16702.	7.1	10
21	Influence of disorder on the signature of the pseudogap and multigap superconducting behavior in FeSe. Physical Review B, 2018, 97, .	3.2	13
22	Strong modification of thin film properties due to screening across the interface. Physical Review B, 2018, 97, .	3.2	5
23	Evolution of ground-state wave function in $CeCoIn_5$ upon Cd or Sn doping. Physical Review B, 2018, 97, .	3.2	16
24	Magnetic and defect probes of the SmB ₆ surface state. Science Advances, 2018, 4, eaau4886.	10.3	29
25	Evolution of the Kondo lattice and non-Fermi liquid excitations in a heavy-fermion metal. Nature Communications, 2018, 9, 3324.	12.8	32
26	Observation of Landau quantization and standing waves in HfSiS. Physical Review B, 2018, 97, .	3.2	4
27	Giant anomalous Hall effect in a ferromagnetic kagome-lattice semimetal. Nature Physics, 2018, 14, 1125-1131.	16.7	876
28	Interplay between unconventional superconductivity and heavy-fermion quantum criticality: CeCu ₂ Si ₂ versus YbRh ₂ Si ₂ . Philosophical Magazine, 2018, 98, 2930-2963.	1.6	16
29	Evidence for Ferromagnetic Clusters in the Colossal-Magnetoresistance Material EuB_6 . Physical Review Letters, 2018, 120, 257201.	7.8	33
30	Synthesis, phase stability, structural, and physical properties of 11-type iron chalcogenides. Physica Status Solidi (B): Basic Research, 2017, 254, 1600149.	1.5	12
31	Superconducting gap structure of FeSe. Scientific Reports, 2017, 7, 44024.	3.3	44
32	Bulk and surface electronic properties of SmB ₆ . A hard x-ray photoelectron spectroscopy study. Physical Review B, 2017, 96, .	3.2	16
33	Impurity-induced bound states inside the superconducting gap of FeSe. Physical Review B, 2017, 96, .	3.2	16
34	Pressure-Induced Ferromagnetism due to an Anisotropic Electronic Topological Transition in Fe_3Te_2 . Physical Review Letters, 2017, 119, 227003.	7.8	108
35	Homogeneity Range of Ternary 11-Type Chalcogenides Fe _{1+y} Te _{1-x} Se _x . Journal of Superconductivity and Novel Magnetism, 2017, 30, 2001-2006.	1.8	5
36	Foundations of heavy-fermion superconductivity: lattice Kondo effect and Mott physics. Reports on Progress in Physics, 2016, 79, 084502.	20.1	73

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37	Additional energy scale in SmB6 at low-temperature. Nature Communications, 2016, 7, 13762.	12.8	50
38	Effect of Co and Ni substitution on the two magnetostructural phase transitions in $\text{Fe}_{1.12}\text{Te}$. Physical Review B, 2016, 93, .	7.2	11
39	Exploring heavy fermions from macroscopic to microscopic length scales. Nature Reviews Materials, 2016, 1, .	48.7	77
40	Surface and electronic structure of SmB through scanning tunneling microscopy. Philosophical Magazine, 2016, 96, 3262-3273.	1.6	20
41	Kondo destruction in heavy fermion quantum criticality and the photoemission spectrum of YbRh2Si2. Journal of Magnetism and Magnetic Materials, 2016, 400, 17-22.	2.3	17
42	Emergence of an incipient ordering mode in FeSe. Physical Review B, 2015, 92, .	3.2	25
43	Solitonic Spin-Liquid State Due to the Violation of the Lifshitz Condition in Fe_1Te . Physical Review Letters, 2015, 115, 177203.	7.8	14
44	Correlation between ground state and orbital anisotropy in heavy fermion materials. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2384-2388.	7.1	65
45	Structural and thermodynamic properties of $\text{Fe}_{1.12}\text{Te}$ with multiple phase transitions. Journal of Applied Physics, 2014, 115, .	2.5	9
46	Evidence of a Kondo Destroying Quantum Critical Point in YbRh_2Si_2 . Journal of the Physical Society of Japan, 2014, 83, 061001.	1.6	22
47	Hybridization gap and Fano resonance in SmB_6 . Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4798-4802.	7.1	111
48	Low-temperature phase diagram of Fe_1Te studied using x-ray diffraction. Physical Review B, 2013, 88, .	3.2	64
49	Interplay between Kondo Suppression and Lifshitz Transitions in YbRh_2Si_2 at High Magnetic Fields. Physical Review Letters, 2013, 110, 256403.	7.8	55
50	Influence of Ir and La substitution on the thermal transport properties of YbRh_2Si_2 . Physica Status Solidi (B): Basic Research, 2013, 250, 491-494.	1.5	0
51	Structural investigations on YbRh_2Si_2 : from the atomic to the macroscopic length scale. Journal of Physics Condensed Matter, 2012, 24, 294203.	1.8	11
52	Pressure-induced successive structural transitions and high-pressure tetragonal phase of $\text{Fe}_{1.08}\text{Te}$. Physical Review B, 2012, 86, .	3.2	21
53	Hall effect in heavy fermion metals. Advances in Physics, 2012, 61, 583-664.	14.4	28
54	Thermal and electrical transport across a magnetic quantum critical point. Nature, 2012, 484, 493-497.	27.8	78

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55	Genetic transition and specific heat of PrMnO_3 . <i>Physical Review B</i> , 2010, 82, 040407.	3.2	43
56	Emerging local Kondo screening and spatial coherence in the heavy-fermion metal YbRh_2Si_2 . <i>Nature</i> , 2011, 474, 362-366.	27.8	143
57	First-order structural transition in the magnetically ordered phase of FeTe . <i>Physical Review B</i> , 2011, 84, 040407.	3.2	53
58	Break Up of Heavy Fermions at an Antiferromagnetic Instability. <i>Journal of the Physical Society of Japan</i> , 2011, 80, SA002.	1.6	8
59	Discontinuous Hall coefficient at the quantum critical point in YbRh_2Si_2 . <i>Journal of Physics Condensed Matter</i> , 2011, 23, 094216.	1.8	6
60	Magnetic and Electronic Quantum Criticality in YbRh_2Si_2 . <i>Journal of Low Temperature Physics</i> , 2010, 161, 67-82.	1.4	8
61	The crossed-field and single-field Hall effect in LuRh_2Si_2 . <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 723-726.	1.5	4
62	Scanning tunneling microscopy studies on CeCoIn_5 and CeIrIn_5 . <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 624-627.	1.5	14
63	Fermi-surface collapse and dynamical scaling near a quantum-critical point. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 14547-14551.	7.1	133
64	Magnetism and superconductivity driven by identical d states in a heavy-fermion metal. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9537-9540.	7.1	32
65	Hall effect measurements and electronic structure calculations on YbRh_2Si_2 and its reference compounds LuRh_2Si_2 and CeRh_2Si_2 . <i>Physical Review B</i> , 2010, 82, 040407.	3.2	39
66	Atomically resolved scanning tunneling microscopy on perovskite manganite single crystals. <i>Applied Physics Letters</i> , 2010, 96, 202512.	3.3	10
67	Magnetization dynamics of a CrO_2 grain studied by micro-Hall magnetometry. <i>Applied Physics Letters</i> , 2010, 97, 042507.	3.3	15
68	Disorder-driven electronic localization and phase separation in superconducting FeTe . <i>Physical Review B</i> , 2010, 82, 040407.	3.2	30
69	Precursor state to superconductivity in CeIrIn_5 . Unusual scaling of magnetotransport. <i>Physical Review B</i> , 2009, 79, 040407.	3.2	7
70	Phase Transition and Anomalous Low Temperature Ferromagnetic Phase in $\text{Pr}_{0.6}\text{Sr}_{0.4}\text{MnO}_3$ Single Crystals. <i>Journal of Superconductivity and Novel Magnetism</i> , 2009, 22, 205-208.	1.8	10
71	Magnetotransport in the CeIrIn_5 System: The Influence of Antiferromagnetic Fluctuations. <i>Journal of Superconductivity and Novel Magnetism</i> , 2009, 22, 201-204.	1.8	2
72	Analysis of the Normal-State Magnetotransport in CeIrIn_5 . <i>Journal of Superconductivity and Novel Magnetism</i> , 2009, 22, 195-199.	1.8	2

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73	Detaching the antiferromagnetic quantum critical point from the Fermi-surface reconstruction in YbRh_2Si_2 . <i>Nature Physics</i> , 2009, 5, 465-469.	16.7	180
74	Hall effect and magnetoresistance in the heavy fermion superconductor $\text{CeCo}(\text{In}_{1-x}\text{Cdx})_5$. <i>Journal of Physics: Conference Series</i> , 2009, 150, 042133.	0.4	2
75	Room temperature magnetoresistance switching of Permalloy thin films induced by iron nanoparticles. <i>Applied Physics Letters</i> , 2008, 92, 093121.	3.3	1
76	Precursor State to Unconventional Superconductivity in CeIrIn_5 . <i>Physical Review Letters</i> , 2008, 100, 137003.	7.8	21
77	Probing the Quantum Critical Behavior of CeCoIn_5 via Hall Effect Measurements. <i>Physical Review Letters</i> , 2007, 98, 057001.	7.8	52
78	Tip preparation for usage in an ultra-low temperature UHV scanning tunneling microscope. <i>Science and Technology of Advanced Materials</i> , 2007, 8, 347-351.	6.1	22
79	Crossover from Landau Fermi liquid to non-Fermi liquid behavior: Indications from Hall measurements on CeCoIn_5 . <i>Physica C: Superconductivity and Its Applications</i> , 2007, 460-462, 678-679.	1.2	0
80	Scanning Tunneling Spectroscopy on $\text{Pr}_{0.68}\text{Pb}_{0.32}\text{MnO}_3$ Single Crystals. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 3064-3066.	2.1	2
81	Hall effect measurements in the heavy-fermion system. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 821-822.	2.7	1
82	Anomalous Hall effect in. <i>Physica B: Condensed Matter</i> , 2005, 359-361, 44-46.	2.7	10
83	High spin polarization in the ferromagnetic filled skutterudites $\text{KFe}_4\text{Sb}_{12}$ and $\text{NaFe}_4\text{Sb}_{12}$. <i>Physical Review B</i> , 2005, 72, .	3.2	18
84	Photoemission and x-ray absorption spectroscopy study of electron-doped colossal magnetoresistive manganite $\text{La}_{0.7}\text{Ce}_{0.3}\text{MnO}_3$ films. <i>Physical Review B</i> , 2004, 69, .	3.2	39
85	Hall-effect evolution across a heavy-fermion quantum critical point. <i>Nature</i> , 2004, 432, 881-885.	27.8	431
86	Direct observation of electron doping in $\text{La}_{0.7}\text{Ce}_{0.3}\text{MnO}_3$ using x-ray absorption spectroscopy. <i>Physical Review B</i> , 2003, 67, .	3.2	186
87	Phase diagram and Hall effect of the electron doped manganite $\text{La}_{1-x}\text{Ce}_x\text{MnO}_3$. <i>Journal of Applied Physics</i> , 2003, 93, 8328-8330.	2.5	55
88	Evidence for two-band magnetotransport in half-metallic chromium dioxide. <i>Physical Review B</i> , 2000, 61, 9621-9628.	3.2	212