

Hermann J Suderow

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5220743/publications.pdf>

Version: 2024-02-01

127
papers

3,018
citations

136950

32
h-index

182427

51
g-index

127
all docs

127
docs citations

127
times ranked

2996
citing authors

#	ARTICLE	IF	CITATIONS
1	Penetration Depth and Coherence Length in the Superconductor PdBi_2 . Journal of the Physical Society of Japan, 2022, 91, .	1.6	0
2	Interior and Edge Magnetization in Thin Exfoliated CrGeTe_3 Films. Nano Letters, 2022, 22, 3165-3172.	9.1	12
3	Superconducting density of states and band structure at the surface of the candidate topological superconductor Au_2Pb . Physical Review Research, 2022, 4, .	3.6	6
4	Large magnetoresistance in the iron-free pnictide superconductor LaRu_2P_2 . Journal of Physics Condensed Matter, 2021, 33, 145501.	1.8	1
5	Anisotropic superconductivity in the spin-vortex antiferromagnetic superconductor $\text{CaK}_2\text{Mo}_2\text{O}_8$. Physical Review B, 2021, 103, .	1.3	1
6	1D charge density wave in the hidden order state of URu_2Si_2 . Communications Physics, 2021, 4, .	5.3	1
7	Coherent coupling between vortex bound states and magnetic impurities in 2D layered superconductors. Nature Communications, 2021, 12, 4668.	12.8	5
8	Millikelvin scanning tunneling microscope at 20/22 Å with a graphite enabled stick-slip approach and an energy resolution below 8 μeV : Application to conductance quantization at 20 Å in single atom point contacts of Al and Au and to the charge density wave of 2H-NbSe_2 . Review of Scientific Instruments, 2021, 92, 093701.	1.3	9
9	Simplified feedback control system for scanning tunneling microscopy. Review of Scientific Instruments, 2021, 92, 103705.	1.3	5
10	Low-Frequency Imaginary Impedance at the Superconducting Transition of H_2Se . Physical Review Applied, 2020, 13, .	3.8	2
11	3D superconducting hollow nanowires with tailored diameters grown by focused He ⁺ beam direct writing. Beilstein Journal of Nanotechnology, 2020, 11, 1198-1206.	2.8	9
12	Linear nonsaturating magnetoresistance in the Nowotny chimney ladder compound Ru_2P . Physical Review B, 2020, 101, .	1.3	1
13	Thermal creep induced by cooling a superconducting vortex lattice. Physical Review Research, 2020, 2, .	3.6	3
14	Observation of a gel of quantum vortices in a superconductor at very low magnetic fields. Physical Review Research, 2020, 2, .	3.6	15
15	Huge linear magnetoresistance due to open orbits in TaTe_2 . Physical Review Research, 2020, 2, .	1.3	1
16	Superconductivity in a disordered metal with Coulomb interactions. Physical Review Research, 2020, 2, .	3.6	5
17	Disordered hyperuniformity in superconducting vortex lattices. Physical Review Research, 2020, 2, .	3.6	6
18	Three-Dimensional Superconducting Nanohelices Grown by He ⁺ -Focused-Ion-Beam Direct Writing. Nano Letters, 2019, 19, 8597-8604.	9.1	52

#	ARTICLE	IF	CITATIONS
19	Long-range vortex transfer in superconducting nanowires. Scientific Reports, 2019, 9, 12386.	3.3	18
20	Magnetic phase diagram, magnetotransport and inverse magnetocaloric effect in the noncollinear antiferromagnet Mn ₅ Si ₃ . Journal of Magnetism and Magnetic Materials, 2019, 489, 165451.	2.3	8
21	Methods to simplify cooling of liquid Helium cryostats. HardwareX, 2019, 5, e00058.	2.2	6
22	Attractive interaction between superconducting vortices in tilted magnetic fields. Communications Physics, 2019, 2, .	5.3	9
23	Influence of Magnetic Ordering between Cr Adatoms on the Yu-Shiba-Rusinov States of the Cu_2S . Physical Review Letters, 2018, 120, 167001.	7.8	54
24	Pressure effect on the superconducting and the normal state of Bi_2Te_3 . Physical Review B, 2018, 97, .	3.2	13
25	Direct visualization of phase separation between superconducting and nematic domains in Co-doped CaFe_2As_2 . Physical Review B, 2018, 97, .	3.2	14
26	Influence of multiband sign-changing superconductivity on vortex cores and vortex pinning in stoichiometric high- T_c $\text{CaKFe}_4\text{As}_8$. Physical Review B, 2018, 97, .	3.2	45
27	Tilted vortex cores and superconducting gap anisotropy in 2H-NbSe_2 . Communications Physics, 2018, 1, .	5.3	14
28	Nodeless multiband superconductivity in stoichiometric single-crystalline $\text{CaKFe}_4\text{As}_8$. Physical Review B, 2017, 95, .	3.2	49
29	Subsurface bending and reorientation of tilted vortex lattices in bulk isotropic superconductors due to Coulomb-like repulsion at the surface. Physical Review B, 2017, 96, .	3.2	7
30	Vortex creep at very low temperatures in single crystals of the extreme type-II superconductor Rh_2As_4 . Physical Review B, 2017, 95, .	3.2	15
31	Vortex cores and vortex motion in superconductors with anisotropic Fermi surfaces. Physica C: Superconductivity and Its Applications, 2017, 533, 2-8.	1.2	3
32	1. Imaging vortices in superconductors: from the atomic scale to macroscopic distances. , 2017, , 29-60.		0
33	Thickness-modulated tungsten-carbon superconducting nanostructures grown by focused ion beam induced deposition for vortex pinning up to high magnetic fields. Beilstein Journal of Nanotechnology, 2016, 7, 1698-1708.	2.8	7
34	Metastable inhomogeneous vortex configuration with non-uniform filling fraction inside a blind hole array patterned in a BSCCO single crystal and concentrating magnetic flux inside it. Superconductor Science and Technology, 2016, 29, 065021.	3.5	1
35	Field dependence of the vortex core size probed by scanning tunneling microscopy. Physical Review B, 2016, 94, .	3.2	31
36	Superconducting gap and vortex lattice of the heavy-fermion compound CeCu_2Si_2 . Physical Review B, 2016, 93, .	3.2	13

#	ARTICLE	IF	CITATIONS
37	Single-gap superconductivity in Bx_2Pd . http://www.w3.org/1998/Math/MathML Strong enhancement of superconductivity at high pressures within the charge-density-wave states of Bx_2Pd . Physical Review B, 2016, 93, .	3.2	40
38	Magnetic field dependence of the density of states in the multiband superconductor Hx_2Pd . http://www.w3.org/1998/Math/MathML Physical Review B, 2016, 93, .	3.2	36
39	Charge density wave in layered $La_{1-x}F_xB_2C_2$. http://www.w3.org/1998/Math/MathML Physical Review B, 2015, 92, .	3.2	15
40	Charge density wave in layered $La_{1-x}F_xB_2C_2$. http://www.w3.org/1998/Math/MathML Physical Review B, 2015, 92, .	3.2	15
41	Commensurate - Incommensurate vortex phase in a nanopatterned superconductor. Journal of Physics: Conference Series, 2015, 638, 012009.	0.4	0
42	Opening the gate on superconductivity. Science, 2015, 350, 1316-1317.	12.6	4
43	Three axis vector magnet set-up for cryogenic scanning probe microscopy. Review of Scientific Instruments, 2015, 86, 013706.	1.3	26
44	Nanostructuring superconducting vortex matter with focused ion beams. Physica C: Superconductivity and Its Applications, 2014, 503, 70-74.	1.2	4
45	Imaging superconducting vortex cores and lattices with a scanning tunneling microscope. Superconductor Science and Technology, 2014, 27, 063001.	3.5	81
46	Enhancement of long-range correlations in a 2D vortex lattice by an incommensurate 1D disorder potential. Nature Physics, 2014, 10, 851-856.	16.7	69
47	Zero-bias conductance peak in detached flakes of superconducting Hx_2Pd . http://www.w3.org/1998/Math/MathML scanning tunneling spectroscopy. Physical Review B, 2014, 89, .	3.2	22
48	Scanning tunneling microscopy and spectroscopy at very low temperatures. Journal of Physics: Conference Series, 2014, 568, 022045.	0.4	0
49	Observation of unreconstructed square atomic square lattice in $Ca(Fe_{0.965}Co_{0.035})_2As_2$ cleaved at very low temperatures. Journal of Physics: Conference Series, 2014, 568, 022046.	0.4	2
50	Low-Temperature Specific Heat of Graphite and CeSb ₂ : Validation of a Quasi-adiabatic Continuous Method. Journal of Low Temperature Physics, 2013, 173, 4-20.	1.4	17
51	Scanning tunneling measurements of layers of superconducting Hx_2Pd . http://www.w3.org/1998/Math/MathML Hx_2Pd -TaSe ₂ . http://www.w3.org/1998/Math/MathML Evidence for a zero-bias anomaly in single layers. Physical Review B, 2013, 87, .	3.2	33
52	Low temperature magnetic transitions of single crystal HoBi. Solid State Communications, 2013, 171, 59-63.	1.9	10
53	Magnetic field-induced dissipation-free state in superconducting nanostructures. Nature Communications, 2013, 4, 1437.	12.8	90
54	Pressure dependence of superconducting critical temperature and upper critical field of Hx_2Pd -NbS ₂ . http://www.w3.org/1998/Math/MathML Physical Review B, 2013, 87, .	3.2	63

#	ARTICLE	IF	CITATIONS
55	Scanning tunneling microscopy in the superconductor LaSb $\times 2$. Physical Review B, 2013, 87, .	3.2	14
56	Topological superconductivity in metallic nanowires fabricated with a scanning tunneling microscope. New Journal of Physics, 2013, 15, 055020.	2.9	4
57	Superconductivity and magnetism on flux-grown single crystals of NiBi $\times 3$. Physical Review B, 2013, 88, .	3.2	28
58	Supercurrent on a vortex core in 2H-NbSe 2 : Current-driven scanning tunneling spectroscopy measurements. Physical Review B, 2013, 88, .	3.2	15
59	Temperature dependent tunneling spectroscopy in the heavy fermion CeRu 2 Si 2 and in the antiferromagnet CeRh 2 Si 2 . Journal of Physics Condensed Matter, 2012, 24, 475602.	1.8	3
60	Tunneling spectroscopy of the superconducting state of URu 2 Si 2 . Physical Review B, 2012, 85, .	3.2	7
61	Magnetic levitation on a type-I superconductor as a practical demonstration experiment for students. European Journal of Physics, 2012, 33, 1383-1395.	0.6	2
62	Generating strong magnetic flux shielding regions in a single crystal of Bi 2 Sr 2 CaCu 2 O 8 using a blind hole array. Superconductor Science and Technology, 2012, 25, 095016.	3.5	6
63	Topological Superconducting State of Lead Nanowires in an External Magnetic Field. Physical Review Letters, 2012, 109, 237003.	7.8	19
64	Properties of nanopatterned pins generated in a superconductor with FIB. Applied Surface Science, 2012, 258, 4199-4202.	6.1	6
65	Scanning microscopies of superconductors at very low temperatures. Physica C: Superconductivity and Its Applications, 2012, 479, 19-23.	1.2	7
66	Demonstration experiments for solid-state physics using a table-top mechanical Stirling refrigerator. European Journal of Physics, 2012, 33, 757-770.	0.6	3
67	Magnetic and superconducting phase diagrams in ErNi 2 B 2 C. Solid State Communications, 2012, 152, 1076-1079.	1.9	6
68	Compact very low temperature scanning tunneling microscope with mechanically driven horizontal linear positioning stage. Review of Scientific Instruments, 2011, 82, 033711.	1.3	43
69	Direct Observation of Stress Accumulation and Relaxation in Small Bundles of Superconducting Vortices in Tungsten Thin Films. Physical Review Letters, 2011, 106, 077001.	7.8	27
70	Andreev reflection under high magnetic fields in ferromagnet-superconductor nanocontacts. Physical Review B, 2011, 84, .	3.2	9
71	Scanning tunneling spectroscopy under large current flow through the sample. Review of Scientific Instruments, 2011, 82, 073710.	1.3	11
72	Chiral charge order in the superconductor 2H-TaS 2 . New Journal of Physics, 2011, 13, 103020.	2.9	45

#	ARTICLE	IF	CITATIONS
73	Atomic resolution and vortex lattice studies of magnetic superconductors: A first approach in the nickel borocarbide TmNi ₂ B ₂ C. Physica C: Superconductivity and Its Applications, 2010, 470, 771-775.	1.2	9
74	In/extrinsic granularity in superconducting boron-doped diamond. Physica C: Superconductivity and Its Applications, 2010, 470, 853-856.	1.2	4
75	Thermometry with a nearly temperature independent sensitivity using a normal-superconducting tunnel diode biased close to the superconducting gap. Cryogenics, 2010, 50, 397-400.	1.7	4
76	Scanning Tunnelling Spectroscopy of Vortices with Normal and Superconducting tips. Nanoscience and Technology, 2010, , 257-280.	1.5	0
77	Intrinsic granularity in nanocrystalline boron-doped diamond films measured by scanning tunneling microscopy. Physical Review B, 2009, 80, .	3.2	17
78	Evolution of the Local Superconducting Density of States in $ErRh_4$ Close to the Ferromagnetic Transition. Physical Review Letters, 2009, 102, 237002.	7.8	10
79	A nodeless superconducting gap in Sr ₂ RuO ₄ from tunneling spectroscopy. New Journal of Physics, 2009, 11, 093004.	2.9	39
80	Transport properties of superconducting amorphous W-based nanowires fabricated by focused-ion-beam-induced-deposition for applications in Nanotechnology. Materials Research Society Symposia Proceedings, 2009, 1180, 1.	0.1	13
81	Direct observation of melting in a two-dimensional superconducting vortex lattice. Nature Physics, 2009, 5, 651-655.	16.7	115
82	Superconducting density of states at the border of an amorphous thin film grown by focused-ion-beam. Journal of Physics: Conference Series, 2009, 150, 052064.	0.4	7
83	Intrinsic Josephson junction behaviour of the low T _c superconductor (LaSe) _{1.14} (NbSe ₂). Physica C: Superconductivity and Its Applications, 2008, 468, 543-546.	1.2	3
84	Scanning tunneling spectroscopy with superconducting tips of Al. Physica C: Superconductivity and Its Applications, 2008, 468, 537-542.	1.2	32
85	Intrinsic atomic-scale modulations of the superconducting gap of H_2 Superconducting Density of States and Vortex Cores of 2H-NbS ₂ . Physical Review B, 2008, 77, .	3.2	82
86	Superconducting Density of States and Vortex Cores of 2H-NbS ₂ . Physical Review Letters, 2008, 101, 166407.	7.8	183
87	Nanoscale superconducting properties of amorphous W-based deposits grown with a focused-ion-beam. New Journal of Physics, 2008, 10, 093005.	2.9	66
88	Gap opening with ordering in PrFe ₄ P ₁₂ studied by local tunneling spectroscopy. Physical Review B, 2008, 77, .	3.2	5
89	Thermal expansion measured by STM in the magnetic superconductor. Physica B: Condensed Matter, 2006, 378-380, 471-472.	2.7	4
90	Local Superconducting Density of States of ErNi ₂ B ₂ C. Physical Review Letters, 2006, 96, 027003.	7.8	35

#	ARTICLE	IF	CITATIONS
91	Pressure Induced Effects on the Fermi Surface of Superconducting $2\text{H}\hat{\nu}\text{NbSe}_2$. Physical Review Letters, 2005, 95, 117006.	7.8	107
92	Superconducting nanostructures fabricated with the scanning tunnelling microscope. Journal of Physics Condensed Matter, 2004, 16, R1151-R1182.	1.8	38
93	Very-low-temperature tunneling spectroscopy in the heavy-fermion superconductor $\text{PrOs}_4\text{Sb}_{12}$. Physical Review B, 2004, 69, .	3.2	67
94	On the use of STM superconducting tips at very low temperatures. European Physical Journal B, 2004, 40, 483-488.	1.5	69
95	Scanning Tunneling Microscopy and Spectroscopy of $(\text{LaSe})_{1.14}(\text{NbSe}_2)$ at Very Low Temperatures and in Magnetic Field. European Physical Journal D, 2004, 54, 489-492.	0.4	8
96	Anisotropic superconductivity in borocarbide superconductors and spin disorder. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 158-159.	2.3	5
97	Pressure dependence of the upper critical field of MgB_2 and of $\text{YNi}_2\text{B}_2\text{C}$. Physical Review B, 2004, 70, .	3.2	47
98	Scanning tunneling spectroscopy in MgB_2 . Physica C: Superconductivity and Its Applications, 2003, 385, 233-243.	1.2	42
99	Observation of a spin-polarized current through single atom quantum point contacts. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 264-265.	2.7	3
100	Superconducting nanobridges under magnetic fields. Physica Status Solidi (B): Basic Research, 2003, 237, 386-393.	1.5	17
101	Phonon-mediated anisotropic superconductivity in the Y and Lu nickel borocarbides. Physical Review B, 2003, 67, .	3.2	50
102	Incommensurate and commensurate magnetic structures of the ternary germanide CeNiGe_3 . Journal of Physics Condensed Matter, 2003, 15, 77-90.	1.8	20
103	Scanning Tunneling Spectroscopy in Anisotropic s-Wave Superconductors. International Journal of Modern Physics B, 2003, 17, 3300-3303.	2.0	4
104	Proximity effect and strong-coupling superconductivity in nanostructures built with an STM. Physical Review B, 2002, 65, .	3.2	36
105	Scanning tunneling microscopy and spectroscopy at very low temperatures. Physica C: Superconductivity and Its Applications, 2002, 369, 106-112.	1.2	23
106	The evanescence of ferromagnetic order in the $\text{Ce}_{1-x}\text{Y}_x\text{Ni}_{0.8}\text{Pt}_{0.2}$ dense Kondo system. European Physical Journal B, 2002, 28, 103-109.	1.5	0
107	Tunneling Spectroscopy in Small Grains of Superconducting MgB_2 . Physical Review Letters, 2001, 86, 5582-5584.	7.8	160
108	Tunneling spectroscopy in the magnetic superconductor $\text{TmNi}_2\text{B}_2\text{C}$. Physical Review B, 2001, 64, .	3.2	36

#	ARTICLE	IF	CITATIONS
109	Transport in the superconducting phase of UPt ₃ at low-temperature: magnetic field and impurity effects. <i>Physica B: Condensed Matter</i> , 2000, 281-282, 872-877.	2.7	8
110	Heavy fermion superconductivity. <i>Physica B: Condensed Matter</i> , 2000, 280, 165-171.	2.7	20
111	Nonequilibrium effects in superconducting necks of nanoscopic dimensions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 275, 299-305.	2.1	5
112	Superconducting lead nanobridges under magnetic fields. <i>Physica C: Superconductivity and Its Applications</i> , 2000, 332, 327-332.	1.2	8
113	Andreev scattering in nanoscopic junctions in a magnetic field. <i>Europhysics Letters</i> , 2000, 50, 749-755.	2.0	25
114	Scaling of the thermal conductivity in the mixed phase of UPt ₃ . <i>Physica B: Condensed Matter</i> , 1999, 259-261, 664-665.	2.7	0
115	Title is missing!. <i>Journal of Low Temperature Physics</i> , 1999, 116, 393-405.	1.4	8
116	Spin-Fluctuation Mediated Thermal Conductivity Around the Magnetic Instability of CeNi ₂ Ge ₂ . <i>Journal of Low Temperature Physics</i> , 1999, 117, 101-112.	1.4	27
117	Very low temperature thermal conductivity in the layered perovskite superconductor. <i>Journal of Physics Condensed Matter</i> , 1998, 10, L597-L602.	1.8	13
118	Scaling and Thermal Conductivity in Unconventional Superconductors: The Case of UPt ₃ . <i>Physical Review Letters</i> , 1998, 80, 165-168.	7.8	39
119	Thermal conductivity and gap structure of the superconducting phases of UPt ₃ . <i>Journal of Low Temperature Physics</i> , 1997, 108, 11-30.	1.4	72
120	Very low-temperature thermal conductivity of UPt ₃ . <i>Physica B: Condensed Matter</i> , 1997, 230-232, 342-344.	2.7	1
121	Quasi-particle vortex scattering in UPt ₃ . <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1997, 234, 64-68.	2.1	15
122	Charge and spin gaps in Kondo-insulator CeNiSn. <i>European Physical Journal D</i> , 1996, 46, 1999-2000.	0.4	1
123	Probing the superconducting gap of UPt ₃ by very low-temperature thermal conductivity. <i>Physica B: Condensed Matter</i> , 1996, 223-224, 47-49.	2.7	4
124	Excitations in heavy fermion systems. <i>Physica B: Condensed Matter</i> , 1996, 223-224, 135-140.	2.7	19
125	Thermal diffusivity and conductivity measurements for Si:P near the metal - insulator transition. <i>Journal of Physics Condensed Matter</i> , 1996, 8, 999-1009.	1.8	3
126	Thermal conductivity and symmetry of the superconductivity in UPt ₃ . <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995, 209, 365-372.	2.1	14

#	ARTICLE	IF	CITATIONS
127	Field-induced renormalization observed by magnetoresistance in CeRu ₂ Si ₂ . Solid State Communications, 1995, 95, 449-453.	1.9	30