

# Ilya Sheikin

## List of Publications by Year in descending order

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140  
papers

5,563  
citations

94433

37  
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79698

73  
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142  
all docs

142  
docs citations

142  
times ranked

3848  
citing authors

#	ARTICLE	IF	CITATIONS
1	Superconductivity on the border of itinerant-electron ferromagnetism in UGe <sub>2</sub> . Nature, 2000, 406, 587-592.	27.8	1,406
2	UGe <sub>2</sub> : A ferromagnetic spin-triplet superconductor. Physical Review B, 2001, 63, .	3.2	310
3	Magnetic Field-Induced Superconductivity in the Ferromagnet URhGe. Science, 2005, 309, 1343-1346.	12.6	272
4	Specific Heat of Single Crystal MgB <sub>2</sub> : A Two-Band Superconductor with Two Different Anisotropies. Physical Review Letters, 2002, 89, 257001.	7.8	183
5	Fermi-surface reconstruction by stripe order in cuprate superconductors. Nature Communications, 2011, 2, 432.	12.8	149
6	Huge Upper Critical Field and Electronic Instability in Pressure-induced Superconductor CeRhSi <sub>3</sub> without Inversion Symmetry in the Crystal Structure. Journal of the Physical Society of Japan, 2008, 77, 073705.	1.6	119
7	Nernst and Seebeck Coefficients of the Cuprate Superconductor $\text{YBa}_2\text{Cu}_3\text{O}_{6.67}$ : A Study of Fermi Surface Reconstruction. Physical Review Letters, 2010, 104, 057005.		
8	Field-Reentrant Superconductivity Close to a Metamagnetic Transition in the Heavy-Fermion Superconductor UTe <sub>2</sub> . Journal of the Physical Society of Japan, 2019, 88, 063707.	1.6	111
9	Effects of neutron irradiation on polycrystalline Mg <sub>11</sub> B <sub>2</sub> . Physical Review B, 2006, 73, .	3.2	98
10	Magnetic torque evidence for the Fulde-Ferrell-Larkin-Ovchinnikov state in the layered organic superconductor $\text{CeTl}$ . Physical Review Letters, 2004, 92, 077001.		
11	Localization of 4 f State in YbRh <sub>2</sub> Si <sub>2</sub> under Magnetic Field and High Pressure: Comparison with CeRh <sub>2</sub> Si <sub>2</sub> . Journal of the Physical Society of Japan, 2006, 75, 114709.	1.6	80
12	Acute enhancement of the upper critical field for superconductivity approaching a quantum critical point in URhGe. Nature Physics, 2007, 3, 460-463.	16.7	80
13	Thermodynamic phase diagram of $\text{FeTe}_{1-x}\text{Se}_x$ crystals in fields up to 28 tesla. Physical Review B, 2010, 82, .		
14	Neutron irradiation of MgB <sub>2</sub> 11: From the enhancement to the suppression of superconducting properties. Applied Physics Letters, 2005, 86, 112503.	3.3	74
15	Multitechnique investigation of Dy <sub>3</sub> implications for coupled lanthanide clusters. Chemical Science, 2016, 7, 4347-4354.	7.4	70
16	Upper critical field and fluctuation conductivity in the critical regime of doped SmFeAsO. Physical Review B, 2009, 79, .	3.2	68
17	Novel Pauli-paramagnetic quantum phase in a Mott insulator. Nature Communications, 2012, 3, 1090.	12.8	66
18	Effect of two bands on critical fields in MgB <sub>2</sub> thin films with various resistivity values. Physical Review B, 2003, 68, .	3.2	63

#	ARTICLE	IF	CITATIONS
19	Isoelectronic Ru substitution at the iron site in $\text{SmFe}_{1-x}\text{Ru}_x\text{As}_2$ . Physical Review B, 2010, 81, 040407.	3.2	63
20	Magnetic Breakdown in the Electron-Doped Cuprate Superconductor $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_4$ . The Reconstructed Fermi Surface Survives in the Strongly Overdoped Regime. Physical Review Letters, 2010, 105, 247002.	3.2	38
21	Topology and spin dynamics in magnetic molecules. Physical Review B, 2005, 72, .	3.2	61
22	Anisotropy and pressure dependence of the upper critical field of the ferromagnetic superconductor $\text{UGe}_2$ . Physical Review B, 2001, 64, .	3.2	59
23	Metamagnetic behavior near the quantum critical point in $\text{UGe}_2$ . Physica B: Condensed Matter, 2000, 284-288, 1277-1278.	2.7	57
24	Specific heat of $\text{MgB}_2$ after irradiation. Journal of Physics Condensed Matter, 2003, 15, 883-893.	1.8	57
25	Incomplete Devil's Staircase in the Magnetization Curve of $\text{SrCu}_2\text{BO}_3$ . Physical Review Letters, 2013, 110, 067210.	7.8	57
26	High magnetic field study of $\text{CePd}_2\text{Si}_2$ . Physical Review B, 2003, 67, .	3.2	56
27	Unusual effects of anisotropy on the specific heat of ceramic and single crystal $\text{MgB}_2$ . Physica C: Superconductivity and Its Applications, 2003, 385, 192-204.	1.2	54
28	Heavy fermions in a high magnetic field. Comptes Rendus Physique, 2013, 14, 53-77.	0.9	54
29	Quantum Phase Interference and $\pi$ -Vector Tunneling in Antiferromagnetic Molecular Wheels. Physical Review Letters, 2009, 102, 157202.	7.8	51
30	Mixing of magnetic states in a $\text{C}_8$ molecular ring. Physical Review B, 2003, 68, .	3.2	50
31	Evidence for Anisotropic Vortex Dynamics and Pauli Limitation in the Upper Critical Field of $\text{FeSe}_{1-x}\text{Te}_x$ . Journal of the Physical Society of Japan, 2010, 79, 053703.	1.6	50
32	Uniform and staggered magnetizations induced by Dzyaloshinskii-Moriya interactions in isolated and coupled spin-1 dimers in a magnetic field. Physical Review B, 2007, 75, .	3.2	48
33	Field dependence of the quantum ground state in the Shastry-Sutherland system $\text{SrCu}_2(\text{BO}_3)_2$ . Europhysics Letters, 2008, 81, 67004.	2.0	44
34	Superconductivity Reinforced by Magnetic Field and the Magnetic Instability in Uranium Ferromagnets. Journal of the Physical Society of Japan, 2011, 80, SA008.	1.6	40
35	Fermi surface of the electron-doped cuprate superconductor $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_4$ probed by high-field magnetotransport. New Journal of Physics, 2011, 13, 015001.	2.9	39
36	Low-Energy Electronic Properties of Clean $\text{CaRuO}_3$ . Elusive Landau Quasiparticles. Physical Review Letters, 2014, 112, .	7.8	39

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37	Correlation between Fermi surface transformations and superconductivity in the electron-doped high- $T_c$ cuprate superconductor YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> . Physical Review B, 2015, 92, .	3.2	39
38	Pressure Dependence of the Upper Critical Field of the Heavy Fermion Superconductor UBe13. Physical Review Letters, 1999, 82, 169-172.	7.8	38
39	Pressure-induced magnetic phase transition in gold-phase SmS. Physical Review B, 2004, 70, .	3.2	38
40	Angle-Dependent Magnetoresistance in the Weakly Incoherent Interlayer Transport Regime in a Layered Organic Conductor. Physical Review Letters, 2006, 96, 166601.	7.8	37
41	Transport anomalies across the quantum limit in semimetallic Bi. Physical Review B, 2008, 78, .	3.2	37
42	Systematic study of disorder induced by neutron irradiation in MgB2 thin films. Journal of Applied Physics, 2007, 101, 043903.	2.5	35
43	Field-Induced Lifshitz Transition without Metamagnetism in CeIrIn <sub>5</sub> . Physical Review Letters, 2016, 116, 037202.	7.8	35
44	Anisotropic Multiband Many-Body Interactions in LuNi <sub>2</sub> B <sub>2</sub> C. Physical Review Letters, 2008, 100, 257004.	7.8	33
45	Superconducting resistive transition in coupled arrays of carbon nanotubes. Physical Review B, 2010, 81, .	3.2	32
46	First Observation of Quantum Oscillations in the Ferromagnetic Superconductor UCoGe. Journal of the Physical Society of Japan, 2011, 80, 013705.	1.6	32
47	Further pressure studies around the magnetic instability of CePd2Si2. Journal of Physics Condensed Matter, 2001, 13, 9335-9347.	1.8	31
48	Nernst effect in the cuprate superconductor YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> . Physical Review B, 2012, 85, .	3.2	30
49	Coexistence and interplay of superconductivity and ferromagnetism in URhGe. Journal of Physics Condensed Matter, 2009, 21, 164211.	1.8	29
50	Title is missing!. Journal of Low Temperature Physics, 2001, 122, 591-604.	1.4	27
51	Fermi-surface evolution in Yb-substituted CeCoIn <sub>5</sub> . Physical Review B, 2012, 85, .	3.2	26
52	Lifshitz Transitions in the Ferromagnetic Superconductor UCoGe. Physical Review Letters, 2016, 117, 206401.	7.8	26
53	Odd-Parity Superconductivity and the Ferromagnetic Quantum Critical Point. Journal of the Physical Society of Japan, 2007, 76, 051011.	1.6	25
54	Possible Quadrupole Density Wave in the Superconducting Kondo Lattice CeRh <sub>2</sub> As <sub>2</sub> . Physical Review X, 2022, 12, .	8.9	25

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55	Field-Induced Antiferromagnetic State in Non-centrosymmetric Superconductor CeIrSi <sub>3</sub> . Journal of the Physical Society of Japan, 2011, 80, 094703.	1.6	24
56	High-Field Fermi Surface Properties in the Low-Carrier Heavy-Fermion Compound URu <sub>2</sub> Si <sub>2</sub> . Journal of the Physical Society of Japan, 2012, 81, 074715.	1.6	24
57	Low temperature magnetic properties and spin dynamics in single crystals of Cr <sub>8</sub> Zn antiferromagnetic molecular rings. Journal of Chemical Physics, 2015, 143, 244321.	3.0	23
58	Magnetism and superconductivity of heavy fermion matter. Comptes Rendus Physique, 2006, 7, 22-34.	0.9	22
59	Using the de Haas-van Alphen Effect to Map Out the Closed Three-Dimensional Fermi Surface of Natural Graphite. Physical Review Letters, 2012, 108, 117401.	7.8	21
60	Transport measurements of the heavy fermion superconductor CeCu <sub>2</sub> Si <sub>2</sub> under hydrostatic pressure in helium. Solid State Communications, 1998, 106, 637-641.	1.9	19
61	Superconductivity, upper critical field and normal state resistivity in CeNi <sub>2</sub> Ge <sub>2</sub> under pressure. Journal of Physics Condensed Matter, 2000, 12, 1339-1349.	1.8	19
62	Field-Induced Magnetoelastic Instabilities in Antiferromagnetic Molecular Wheels. Physical Review Letters, 2006, 96, 027206.	7.8	19
63	Hall plateaus at magic angles in bismuth beyond the quantum limit. Physical Review B, 2009, 79, .	3.2	19
64	Novel Electronic States of Heavy Fermion Compound YbCo <sub>2</sub> Zn <sub>20</sub> . Journal of the Physical Society of Japan, 2014, 83, 044703.	1.6	18
65	Field-temperature phase diagram and entropy landscape of $CeAuSb_2$ . Physical Review B, 2016, 93, .	8.9	16
66	Field-Angle Dependence Reveals Odd-Parity Superconductivity in $CeRh_2$ . Physical Review X, 2022, 12, .	8.9	16
67	Evidence for a New Magnetic Field Scale in CeCoIn <sub>5</sub> . Physical Review Letters, 2006, 96, 077207.	7.8	14
68	Magnetic oscillations in a two-dimensional network of compensated electron and hole orbits. Europhysics Letters, 2005, 71, 783-789.	2.0	13
69	Field-induced phases in UPt <sub>3</sub> . Physical Review B, 2012, 85, .	3.2	13
70	Magnetic phase diagram and electronic structure of UPt <sub>3</sub> at high magnetic fields: A possible field-induced Lifshitz transition. Physical Review B, 2017, 95, .	3.2	13
71	Probing the electron-phonon coupling in MgB <sub>2</sub> through magnetoresistance measurements in neutron irradiated thin films. Europhysics Letters, 2008, 81, 67006.	2.0	12
72	Superconducting properties in Rh <sub>17</sub> Si <sub>15</sub> under magnetic field and pressure. Journal of Physics and Chemistry of Solids, 2010, 71, 700-703.	4.0	12

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73	Spin reorientation induced by a very high magnetic field in domain-structured $\text{YFeO}_3$ . Emergence of perpendicular anisotropy. Physical Review B, 2010, 81, .	3.2	12
74	Upper critical field of the spin ladder system $\text{Sr}_{2.5}\text{Ca}_{1.5}\text{Cu}_2\text{O}_{41}$ . Solid State Communications, 2000, 114, 533-536.	1.9	11
75	Specific heat of heavy-fermion $\text{CePd}_2\text{Si}_2$ in high magnetic fields. Journal of Physics Condensed Matter, 2002, 14, L543-L549.	1.8	10
76	The Fulde-Ferrell-Larkin-Ovchinnikov state in the organic superconductor $\hat{\Gamma}^{\pm}(\text{BEDT-TTF})_2\text{Cu}(\text{NCS})_2$ as observed in magnetic-torque experiments. Physica C: Superconductivity and Its Applications, 2010, 470, S586-S588.	1.2	10
77	Giant magnetisation step in $\text{Fe}_2$ : Molecular nanomagnets in the weak exchange limit. Europhysics Letters, 2011, 95, 57002.	2.0	10
78	Field-induced charge-density-wave transitions in the organic metal $\hat{\Gamma}^{\pm}(\text{BEDT-TTF})_2\text{KHg}(\text{SCN})_4$ under pressure. Low Temperature Physics, 2011, 37, 762-770.	0.6	10
79	Magnetic and superconducting quantum critical points of heavy-fermion systems. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 17-22.	2.3	9
80	Specific heat and isothermal magnetocaloric effect for single-crystal UAs. Physical Review B, 2003, 67, .	3.2	9
81	High magnetic field studies of the charge density wave state of the quasi-two-dimensional conductor $\text{KMO}_6\text{O}_{17}$ . Physica B: Condensed Matter, 2004, 346-347, 314-318.	2.7	9
82	Study of the Fermi Surface of $\text{ZrB}_{12}$ Using the deHaas-vanAlphen Effect. Physical Review Letters, 2008, 101, 097006.	7.8	9
83	Anomalous Behavior of the Upper-Critical-Field in Heavy-Fermion Superconductor $\text{CeRhSi}_3$ . Journal of the Physical Society of Japan, 2010, 79, 063701.	1.6	9
84	Incomplete spin reorientation in yttrium orthoferrite. Physical Review B, 2011, 84, .	3.2	9
85	High-Quality Single Crystal Growth and Unique Electronic States under Magnetic Field and Pressure in Rare Earth and Actinide Compounds. Journal of the Physical Society of Japan, 2012, 81, SB001.	1.6	9
86	Transport Measurements of the Heavy Fermion Superconductor $\text{CeCu}_2\text{Si}_2$ Under Pressure. Journal of Low Temperature Physics, 2000, 118, 113-126.	1.4	8
87	Fermi-surface topology of the iron pnictide $\text{LaFe}_2\text{P}_2$ . Physical Review B, 2014, 89, .	3.2	8
88	Quasi-two-dimensional Fermi surfaces of the heavy-fermion superconductor $\text{Ce}_2\text{PdIn}_8$ . Physical Review B, 2015, 92, .	3.2	7
89	Determination of the magnetic structure of $\text{CePt}_2$ by means of neutron diffraction. Physical Review B, 2017, 95, .	3.2	7
90	Presaturation phase in the frustrated ferro-antiferromagnet $\text{Pb}_2\text{X}_2$ . Physical Review B, 2020, 102, .	3.2	7

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91	Specific heat of ceramic and single crystal MgB <sub>2</sub> . Physica C: Superconductivity and Its Applications, 2003, 388-389, 107-108.	1.2	6
92	Specific heat in high magnetic fields and magnetic phase diagram of CePt <sub>2</sub> In <sub>7</sub> . Physical Review B, 2016, 93, .	3.2	6
93	Interplay of magnetism and superconductivity in under hydrostatic pressure. Journal of Physics Condensed Matter, 1998, 10, L749-L755.	1.8	5
94	Superconductivity in two itinerant uranium ferromagnets: UGe <sub>2</sub> and URhGe. Journal of Physics and Chemistry of Solids, 2002, 63, 1179-1182.	4.0	5
95	Angular studies of the magnetoresistance in the density wave state of the quasi-two-dimensional purple bronze KMo <sub>6</sub> O <sub>17</sub> . European Physical Journal B, 2007, 58, 25-30.	1.5	5
96	Magnetic phase diagram of the $S=1/2$ triangular layered compound NaNiO <sub>2</sub> : a single crystal study. Journal of Physics Condensed Matter, 2010, 22, 126001.	1.8	5
97	Fermi surface of the superconductor Ba <sub>1-x</sub> Pb <sub>x</sub> P <sub>2</sub> . Physical Review B, 2015, 92, .	3.2	5
98	Fermi surface investigation of the semimetal TaAs <sub>2</sub> . Physical Review B, 2019, 99, .	3.2	5
99	High-field phase diagram of the heavy-fermion metal $CeIn_3$ : Pulsed-field NMR study on single crystals up to 56 T. Physical Review B, 2019, 99, .	3.2	5
100	Interplay of magnetism and superconductivity in CeCu <sub>2</sub> Si <sub>2</sub> under hydrostatic pressure.. Physica B: Condensed Matter, 1999, 259-261, 683-685.	2.7	4
101	High-Field de Haas-van Alphen Effect in Non-Centrosymmetric CeCoGe <sub>3</sub> and LaCoGe <sub>3</sub> . Journal of the Physical Society of Japan, 2011, 80, SA020.	1.6	4
102	Field-Induced Phenomena in Ferromagnetic Superconductors UCoGe and URhGe. Journal of the Physical Society of Japan, 2012, 81, SB002.	1.6	4
103	Fermi surface reconstruction and dimensional topology change in Nd-doped $CeCoIn_5$ . Physical Review B, 2018, 98, .	3.2	4
104	Fermi surface investigation of the filled skutterudite LaRu <sub>4</sub> As <sub>12</sub> . Physical Review B, 2019, 100, .	3.2	4
105	Specific heat of $CeRhIn_5$ in high magnetic fields: Magnetic phase diagram revisited. Physical Review B, 2021, 103, .	3.2	4
106	De Haas-van Alphen effect study of CePd <sub>2</sub> Si <sub>2</sub> . Physica B: Condensed Matter, 2004, 346-347, 310-313.	2.7	3
107	Structural and magnetic properties of methylated CuHpCl. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 962-963.	2.3	3
108	Magnetic phase diagram of. Physica B: Condensed Matter, 2005, 359-361, 1132-1134.	2.7	3

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109	Incoherent versus coherent interlayer transport in layered conductors under a magnetic field. European Physical Journal Special Topics, 2005, 131, 265-268.	0.2	3
110	Fermi surface properties of the bifunctional organic metal $N\hat{I}^p$ Physical Review B, 2019, 99, .		
111	Magnetic structure of Cd-doped $CeIrN_5$ Physical Review B, 2020, 101, .		
112	Robust Fermi-Surface Morphology of $CeRhIn_5$ across the Putative Field-Induced Quantum Critical Point. Physical Review Letters, 2021, 126, 016403.	7.8	3
113	Superconductivity on the border of itinerant electron ferromagnetism in $UGe_2$ . Journal of Magnetism and Magnetic Materials, 2001, 226-230, 45-47.	2.3	2
114	Pressure tuning through the magnetic instability of $CePd_2Si_2$ . Physica B: Condensed Matter, 2002, 312-313, 418-419.	2.7	2
115	Level crossing in a molecular $Cr_8$ ring. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1050-1051.	2.3	2
116	Critical Field of Magnesium Diboride in Substituted and Irradiated Samples. IEEE Transactions on Applied Superconductivity, 2005, 15, 3223-3226.	1.7	2
117	NQR studies of under hydrostatic pressure. Physica B: Condensed Matter, 2006, 378-380, 829-830.	2.7	2
118	Electron transport and superconducting properties of $ZrB_{12}$ and $YB_6$ . Physica C: Superconductivity and Its Applications, 2007, 460-462, 623-625.	1.2	2
119	The de Haas-van Alphen effect study of the Fermi surface of $ZrB_{12}$ . Journal of Physics: Conference Series, 2009, 150, 052059.	0.4	2
120	Many-body effects in $LuNi_2B_2C$ . Journal of Physics: Conference Series, 2009, 150, 052021.	0.4	2
121	Heavy fermions and unconventional superconductivity in high-quality single crystals of rare-earth and actinide compounds. Journal of the Korean Physical Society, 2013, 63, 409-415.	0.7	2
122	Quasi-two-dimensional Fermi surfaces with localized f electrons in the layered heavy-fermion compound $CePt_2In_7$ . Physical Review B, 2017, 96, .	3.2	2
123	Drastic change of the Fermi surface across the metamagnetic transition in $CeRh_2$ Physical Review B, 2017, 95, .		
124	Fermi-surface topology of the heavy-fermion system $Ce_2PtIn_8$ . Physical Review B, 2018, 97, .	3.2	2
125	Fermi surface of $LaFe_2P_2$ a detailed density functional study. Journal of Physics Condensed Matter, 2020, 32, 025503.	1.8	2
126	Anomalous quantum oscillations of $CeCoIn_5$ in high magnetic fields. Physical Review B, 2021, 104, .		

