

Shigeru Kasahara

List of Publications by Year in descending order

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138
papers

6,919
citations

50170
46
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60497
81
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139
all docs

139
docs citations

139
times ranked

4086
citing authors

#	ARTICLE	IF	CITATIONS
1	Intrinsic suppression of the topological thermal Hall effect in an exactly solvable quantum magnet. Physical Review B, 2022, 105, .	1.1	6
2	Charge-neutral fermions and magnetic field-driven instability in insulating YbIr ₃ Si ₇ . Nature Communications, 2022, 13, 394.	5.8	5
3	Transport evidence for decoupled nematic and magnetic criticality in iron chalcogenides. Communications Physics, 2022, 5, .	2.0	3
4	Resistivity and thermal conductivity of an organic insulator $\text{EtMe}_3\text{Sb}[\text{Pd}(\text{dmit})_2]_2$. Scientific Reports, 2022, 12, .	1.6	5
5	Bond Directional Anapole Order in a Spin-Orbit Coupled Mott Insulator $\text{Sr}_{x}\text{Mn}_{1-x}\text{O}$		

#	ARTICLE	IF	CITATIONS
19	Effect of quenched disorder on the quantum spin liquid state of the triangular-lattice antiferromagnet $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 1 \langle / \text{mml:mn} \rangle \langle \text{mml:mi} \rangle T \langle / \text{mml:mi} \rangle \langle \text{mml:mo} \rangle ^{1,3} \langle / \text{mml:mo} \rangle \text{a} \langle / \text{mml:math} \rangle$. <i>Physical Review Research</i> , 2020, 2.	5.2	13
20	Non-Fermi liquid transport in the vicinity of the nematic quantum critical point of superconducting $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle Fe \langle / \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle S_{\frac{3}{2}} \langle / \text{mml:msub} \rangle \langle \text{mml:mathvariant="normal"} \rangle S \langle / \text{mml:mi} \rangle \langle \text{mml:mi} \rangle x \langle / \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle BaFe \langle / \text{mml:mi} \rangle \langle \text{mml:mi} \rangle 2 \langle / \text{mml:mi} \rangle \langle / \text{mml:mrow} \rangle \langle / \text{mml:math} \rangle$. <i>Physical Review Research</i> , 2020, 2, .	25	25
21	In-plane electronic anisotropy resulted from ordered magnetic moment in iron-based superconductors. <i>Physical Review Research</i> , 2020, 2, .	1.3	3
22	Universal relationship between low-energy antiferromagnetic fluctuations and superconductivity in $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle BaFe \langle / \text{mml:mi} \rangle \langle \text{mml:mi} \rangle 2 \langle / \text{mml:mi} \rangle \langle / \text{mml:mrow} \rangle \langle / \text{mml:math} \rangle$. <i>Physical Review B</i> , 2019, 100, .	11	11
23	Diagonal nematicity in the pseudogap phase of $HgBa_2CuO_4+\hat{\tau}$. <i>Nature Communications</i> , 2019, 10, 3282.	5.8	47
24	Unconventional thermal metallic state of charge-neutral fermions in an insulator. <i>Nature Physics</i> , 2019, 15, 954-959.	6.5	35
25	Photoinduced possible superconducting state with long-lived disproportionate band filling in FeSe. <i>Communications Physics</i> , 2019, 2, .	2.0	28
26	Ultrafast nematic-orbital excitation in FeSe. <i>Nature Communications</i> , 2019, 10, 1946.	5.8	19
27	^{77}Se -NMR Study under Pressure on 12%-S Doped FeSe. <i>Journal of the Physical Society of Japan</i> , 2019, 88, 033703.	0.7	10
28	Quantum Vortex Core and Missing Pseudogap in the Multiband BCS-BEC Crossover Superconductor FeSe. <i>Physical Review Letters</i> , 2019, 122, 077001.	2.9	56
29	Electrical resistivity across a nematic quantum critical point. <i>Nature</i> , 2019, 567, 213-217.	13.7	80
30	Reciprocity between local moments and collective magnetic excitations in the phase diagram of $BaFe_2(As_{1-x}Px)_2$. <i>Communications Physics</i> , 2019, 2, .	2.0	15
31	Measuring magnetic field texture in correlated electron systems under extreme conditions. <i>Science</i> , 2019, 366, 1355-1359.	6.0	62
32	Evolution of the low-temperature Fermi surface of superconducting $FeSe_{1-x}S_x$ across a nematic phase transition. <i>Npj Quantum Materials</i> , 2019, 4, .	1.8	62
33	Coexistence of orbital and quantum critical magnetoresistance in $\langle \text{mml:math} \text{ xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle FeSe \langle / \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 1 \langle / \text{mml:mn} \rangle \langle \text{mml:mathvariant="normal"} \rangle S \langle / \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle x \langle / \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle / \text{mml:math} \rangle$. <i>Physical Review Research</i> , 2019, 1, .	33	13
34	In Situ STM Observation of Nonmagnetic Impurity Effect in MBE-grown $CeCoIn_5$ Films. <i>Journal of the Physical Society of Japan</i> , 2018, 87, 034702.	0.7	13
35	Abrupt change of the superconducting gap structure at the nematic critical point in $FeSe_{1-x}S_x$. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 1227-1231.	3.3	69
36	Superconducting gap anisotropy sensitive to nematic domains in FeSe. <i>Nature Communications</i> , 2018, 9, 282.	5.8	56

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37	Magnetic fluctuations under pressure on S-doped FeSe studied via ^{77}Se NMR. AIP Advances, 2018, 8, 101308.	0.6	1
38	Two distinct superconducting pairing states divided by the nematic end point in $\text{FeSe}_{1-x}\text{S}_x$. Science Advances, 2018, 4, eaar6419.	4.7	74
39	Quasiparticle Excitations in the Superconducting State of FeSe Probed by Thermal Hall Conductivity in the Vicinity of the BCS-BEC Crossover. Journal of the Physical Society of Japan, 2017, 86, 014707.	0.7	23
40	Maximizing T_c by tuning nematicity and magnetism in $\text{FeSe}_{1-x}\text{S}_x$ superconductors. Nature Communications, 2017, 8, 1143.	5.8	88
41	Impact of Disorder on the Superconducting Phase Diagram in $\text{BaFe}_{2-x}(\text{As}_{1-x}\text{S}_x)$. Journal of the Physical Society of Japan, 2017, 86, 083706.	0.7	20
42	Weakening of the diamagnetic shielding in $\text{FeSe}_{1-x}\text{S}_x$ at high pressures. Physical Review B, 2017, 96, .	1.1	17
43	Thermodynamic evidence for a nematic phase transition at the onset of the pseudogap in $\text{YBa}_2\text{Cu}_3\text{O}_y$. Nature Physics, 2017, 13, 1074-1078.	6.5	170
44	Nematic quantum critical point without magnetism in $\text{FeSe}_{1-x}\text{S}_x$ superconductors. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8139-8143.	3.3	164
45	Giant superconducting fluctuations in the compensated semimetal FeSe at the BCS-BEC crossover. Nature Communications, 2016, 7, 12843.	5.8	100
46	Charge-induced nematicity in FeSe. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9177-9181.	3.3	83
47	Fermi surface reconstruction in FeSe under high pressure. Physical Review B, 2016, 93, .	1.1	35
48	Magnetotransport study of the pressure-induced antiferromagnetic phase in FeSe. Physical Review B, 2016, 93, .	1.1	24
49	Nematic magnetoelastic effect contrasted between $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ and FeSe. Physical Review B, 2016, 93, .	1.1	12
50	Dome-shaped magnetic order competing with high-temperature superconductivity at high pressures in FeSe. Nature Communications, 2016, 7, 12146.	5.8	210
51	Diamagnetic vortex barrier stripes in underdoped $\text{FeSe}_{1-x}\text{S}_x$. Physical Review B, 2016, 94, .	1.1	10
52	Local characterization of superconductivity in $\text{FeSe}_{1-x}\text{S}_x$. Physical Review B, 2016, 94, .	1.1	27
53	²⁰ Fermi surface of IrTe_2 in the valence-bond state as determined by quantum oscillations. Physical Review B, 2015, 91, .	1.1	5
54	Optical conductivity evidence of clean-limit superconductivity in LiFeAs. Physical Review B, 2015, 91, .	1.1	8

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55	Critical current density, vortex dynamics, and phase diagram of single-crystal FeSe. Physical Review B, 2015, 92, .	1.1	65
56	Dichotomy between the Hole and Electron Behavior in Multiband Superconductor FeSe Probed by Ultrahigh Magnetic Fields. Physical Review Letters, 2015, 115, 027006.	2.9	111
57	Momentum-dependent sign inversion of orbital order in superconducting FeSe. Physical Review B, 2015, 92, .	1.1	113
58	Enhancement of critical current density and mechanism of vortex pinning in H ⁺ -irradiated FeSe single crystal. Applied Physics Express, 2015, 8, 113102.	1.1	23
59	Evidence for Time-Reversal Symmetry Breaking of the Superconducting State near Twin-Boundary Interfaces in FeSe Revealed by Scanning Tunneling Spectroscopy. Physical Review X, 2015, 5, .	2.8	61
60	Structural Origin of the Anomalous Temperature Dependence of the Local Magnetic Moments in the CaFe _{2-x} P _x System. Physical Review Letters, 2015, 114, 047001.	2.9	28
61	Emergence of Orbital Nematicity in the Tetragonal Phase of BaFe _{2-x} (As _{1-x} P _x) ₂ . Journal of the Physical Society of Japan, 2015, 84, 043705.	0.7	46
62	Pressure-Induced Antiferromagnetic Transition and Phase Diagram in FeSe. Journal of the Physical Society of Japan, 2015, 84, 063701.	0.7	94
63	Anomalous critical fields in quantum critical superconductors. Nature Communications, 2014, 5, 5679.	5.8	41
64	Disorder-induced topological change of the superconducting gap structure in iron pnictides. Nature Communications, 2014, 5, 5657.	5.8	86
65	Anomalous Fermi surface in FeSe seen by Shubnikov-de Haas oscillation measurements. Physical Review B, 2014, 90, .	1.1	155
66	Infrared pseudogap in cuprate and pnictide high-temperature superconductors. Physical Review B, 2014, 90, .	1.1	21
67	Pseudogap formation above the superconducting dome in iron pnictides. Physical Review B, 2014, 89, .	1.1	77
68	Field-induced superconducting phase of FeSe in the BCS-BEC cross-over. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16309-16313.	3.3	312
69	Doping evolution of the quasiparticle excitations in heavily hole-doped back-mixed Fe _{1-x} Mn _x As. Physical Review B, 2014, 89, 134508.	1.1	41
70	Direct observation of lattice symmetry breaking at the hidden-order transition in URu ₂ Si ₂ . Nature Communications, 2014, 5, 4188.	5.8	58
71	Anisotropy of the superconducting gap in the iron-based superconductor BaFe ₂ (As _{1-x} P _x) ₂ . Scientific Reports, 2014, 4, 7292.	1.6	25
72	Electron irradiation of Co, Ni, and P-doped BaFe _{2-x} As ₂ type iron-based superconductors. Journal of Physics: Conference Series, 2013, 449, 012023.	0.3	24

#	ARTICLE	IF	CITATIONS
73	Article Mass Enhancement Close to the Quantum Critical Point in BaFe _{2-x} As _x . Disorder, critical currents, and vortex pinning energies in isovalently substituted BaFe _{2-x} As _x	2.9	105
74	201		

#	ARTICLE	IF	CITATIONS
91	Dimensional and Three-Dimensional Fermi Surfaces of Superconducting $BaFe_{2-x}As_x$. Nodal gap structure of superconducting $BaFe_{2-x}As_x$.	10	10
92			

#	ARTICLE	IF	CITATIONS
109	Exceptional Superconductivity and Antiferromagnetic Quantum Critical Behavior in the Isovalent-Doped $BaFe_2As_2$	2.9	195
110	Quasiparticle Scattering Induced by Charge Doping of Iron-Pnictide Superconductors Probed by Collective Vortex Pinning. <i>Physical Review Letters</i> , 2010, 105, 267002.	2.9	66
111	Evolution of the Fermi Surface of $BaFe_2As_2$	2.9	189
112	Superconducting Do. <i>Physical Review Letters</i> , 2010, 104, 057008. Rotationally resolved high-resolution spectrum of the $S_1 \rightarrow S_0$ transition of jet-cooled thioanisole. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 13243.	1.3	20
113	Microwave Surface-Impedance Measurements of the Magnetic Penetration Depth in Single Crystal $BaFe_2As_2$	2.0	118
114	High pressure synthesis and magnetic properties of $CaFe_2O_4$ -type $NaMn_2O_4$ and $LiMn_2O_4$. <i>Journal of Physics: Conference Series</i> , 2009, 150, 042210.	0.3	4
115	Superconducting properties of noncentrosymmetric $Li_2(Pt_{1-x}Pd_x)3B$ superconductors. <i>Journal of Physics: Conference Series</i> , 2009, 153, 012028.	0.3	1
116	Specific heat of novel ternary superconductors $La_3Ni_4X_4$ ($X=Si$ and Ge). <i>Physica C: Superconductivity and Its Applications</i> , 2008, 468, 1231-1233.	0.6	1
117	Low temperature specific heat of ternary germanide superconductor $La_3Pd_4Ge_4$. <i>Physica B: Condensed Matter</i> , 2008, 403, 1119-1121.	1.3	5
118	Specific heat of superconductors [0.5, and 1]. <i>Physica B: Condensed Matter</i> , 2008, 403, 1078-1080.	1.3	2
119	Low temperature specific heat of superconducting ternary intermetallics $La_3Pd_4Ge_4$, $La_3Ni_4Si_4$, and $La_3Ni_4Ge_4$ with $U_3Ni_4Si_4$ -type structure. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 385204.	0.7	13
120	Superconducting Double Transition in $PrOs_4Sb_{12}$ Probed by Local Magnetization Measurements and Magneto-Optical Imaging. <i>Journal of the Physical Society of Japan</i> , 2008, 77, 327-329.	0.7	2
121	Superconductivity in the ternary intermetallics of $La_3Ni_4X_4$ ($X = Tl, ETq, Li$). <i>Physica B: Condensed Matter</i> , 2008, 403, 1119-1121.	1.0	784314
122	Specific-heat studies of the spin-orbit interaction in noncentrosymmetric $Li_2Pd_3Si_4$. <i>Physica B: Condensed Matter</i> , 2008, 403, 1119-1121.	1.1	54
123	Physical Review B, 2007, 76, . Double transition in $PrOs_4Sb_{12}$ probed by local magnetization measurements using Hall probe array. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 460-462, 696-697.	0.6	0
124	Pressure effect and superconducting properties of lithium ternary borides. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 460-462, 89-90.	0.6	1
125	Positive local magnetization in the superconducting state of $PrOs_4Sb_{12}$. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 463-465, 71-75.	0.6	3
126	Specific heat of lithium ternary borides under magnetic field. <i>Physica C: Superconductivity and Its Applications</i> , 2007, 463-465, 111-114.	0.6	1

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127	Local Field Measurements in PrOs ₄ Sb ₁₂ with Broken Time-Reversal Symmetry. AIP Conference Proceedings, 2006, , .	0.3	1
128	Comparative study of anisotropic superconductivity in CaAlSi and CaGaSi. Physica C: Superconductivity and Its Applications, 2005, 426-431, 208-212.	0.6	12
129	Peculiar superconductivity in PrOs ₄ Sb ₁₂ probed by local magnetization. Physica C: Superconductivity and Its Applications, 2005, 426-431, 381-385.	0.6	2
130	Local magnetization anomalies and inhomogeneous vortex penetration in the crossing-lattices state of Bi ₂ Sr ₂ CaCu ₂ O _{8+y} . Physical Review B, 2005, 71, .	1.1	7
131	Doping dependence of crossing vortex lattice in Bi ₂ Sr ₂ CaCu ₂ O _{8+y} . Physica C: Superconductivity and Its Applications, 2004, 412-414, 440-443.	0.6	0
132	Pinning anomalies in organic layered superconductor $\text{BEDT-TTF}_2\text{X}$ {X=Cu(NCS)2, Cu[N(CN)2]Br}. Physica C: Superconductivity and Its Applications, 2003, 388-389, 607-608.	0.6	0
133	Resistance oscillation and dynamical instabilities of vortices in $\text{BEDT-TTF}_2\text{Cu}(\text{NCS})_2$. Synthetic Metals, 2003, 137, 1283-1284.	2.1	0
134	Dynamical behavior of vortices introduced into a layered superconductor $\text{BEDT-TTF}_2\text{Cu}(\text{NCS})_2$. Synthetic Metals, 2001, 120, 937-938.	2.1	1
135	Vortex motion in an organic superconductor $\text{BEDT-TTF}_2\text{Cu}(\text{SCN})_2$. Synthetic Metals, 1999, 103, 1822-1823.	2.1	0
136	Cryomagnetic system for the acoustic de Haas-van Alphen measurement. Physica B: Condensed Matter, 1993, 186-188, 165-168.	1.3	5
137	Physical Properties of Li _x Pd _y B and Li _x Pt _y B Superconductors. Materials Science Forum, 0, 561-565, 2079-2082.	0.3	6
138	Pressure-induced Lifshitz transition in FeSe _{0.88} Se _{0.12} probed via ⁷⁷ Se-NMR. Papers in Physics, 0, 11, 110003.	0.2	0