

Shi-Zeng Lin

List of Publications by Year in descending order

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99
papers

3,338
citations

136950

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102
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102
docs citations

102
times ranked

2716
citing authors

#	ARTICLE	IF	CITATIONS
1	Gapless Higgs mode in the Fulde-Ferrell-Larkin-Ovchinnikov state of a superconductor. Physical Review B, 2022, 105, .	3.2	1
2	Floquet engineering of Kitaev quantum magnets. Communications Physics, 2022, 5, .	5.3	12
3	Inducing and controlling superconductivity in the Hubbard honeycomb model using an electromagnetic drive. Physical Review B, 2021, 103, .	3.2	6
4	Spin-texture-driven electrical transport in multi-Q antiferromagnets. Communications Physics, 2021, 4, .	5.3	19
5	Meron, skyrmion, and vortex crystals in centrosymmetric tetragonal magnets. Physical Review B, 2021, 103, .	3.2	59
6	Enhanced superconductivity in quasiperiodic crystals. Physical Review Research, 2021, 3, .	3.6	6
7	Spontaneous fractional Chern insulators in transition metal dichalcogenide moiré superlattices. Physical Review Research, 2021, 3, .	3.6	40
8	Field-free topological behavior in the magnetic domain wall of ferrimagnetic GdFeCo. Nature Communications, 2021, 12, 5604.	12.8	9
9	Large tunable anomalous Hall effect in the kagome antiferromagnet $U_3Ru_4Mn_8O_{20}$. Physical Review B, 2020, 102, .	3.2	8
10	Skyrmion lattice creep at ultra-low current densities. Communications Materials, 2020, 1, .	6.9	11
11	Thermal generation, manipulation and thermoelectric detection of skyrmions. Nature Electronics, 2020, 3, 672-679.	26.0	86
12	Stable Higgs mode in anisotropic quantum magnets. Physical Review B, 2020, 102, .	3.2	6
13	Current-Induced Reversal of Anomalous Hall Conductance in Twisted Bilayer Graphene. Physical Review Letters, 2020, 125, 226401.	7.8	18
14	Skyrmion Crystal from RKKY Interaction Mediated by 2D Electron Gas. Physical Review Letters, 2020, 124, 207201.	7.8	72
15	Interplay of the Spin Density Wave and a Possible Fulde-Ferrell-Larkin-Ovchinnikov State in $CeCoIn_5$ in Rotating Magnetic Field. Physical Review Letters, 2020, 124, 217001.	7.8	10
16	Topological sliding moiré heterostructure. Physical Review B, 2020, 101, .	3.2	20
17	Dimension transcendence and anomalous charge transport in magnets with moving multiple- Q spin textures. Physical Review Research, 2020, 2, .	3.6	12
18	Kelvin modes of a skyrmion line in chiral magnets and the associated magnon transport. Physical Review B, 2019, 99, .	3.2	18

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19	Reentrant Fulde-Ferrell-Larkin-Ovchinnikov state in small-sized superconductors. Physical Review B, 2019, 99, .	3.2	4
20	Face Centered Cubic and Hexagonal Close Packed Skyrmion Crystals in Centrosymmetric Magnets. Physical Review Letters, 2018, 120, 077202.	7.8	35
21	Tunable emergent heterostructures in a prototypical correlated metal. Nature Physics, 2018, 14, 456-460.	16.7	15
22	Anisotropic magnetocrystalline coupling of the skyrmion lattice in MnSi. Physical Review B, 2018, 97, .	3.2	16
23	Nontrivial topology and localization in the double exchange model with possible applications to perovskite manganites. Physical Review B, 2018, 98, .	3.2	6
24	Pairing symmetry and spontaneous vortex-antivortex lattice in superconducting twisted-bilayer graphene: Bogoliubov-de Gennes approach. Physical Review B, 2018, 98, .	3.2	70
25	Evolution of topological skyrmions across the spin reorientation transition in Pt/Co/Ta multilayers. Physical Review B, 2018, 97, .	3.2	41
26	Multiple phases with intertwined magnetic and superconducting orders in Nd-doped CeCoIn_5 . Physical Review B, 2018, 97, .	3.2	4
27	Intrinsic left-handed electromagnetic properties in anisotropic superconductors. Applied Physics Letters, 2017, 110, 172602.	3.3	0
28	Strain-induced intervortex interaction and vortex lattices in tetragonal superconductors. Physical Review B, 2017, 95, .	3.2	15
29	Switching dynamics of the spin density wave in superconducting CeCoIn_5 . Physical Review B, 2017, 95, .	3.2	4
30	Realization of the axial next-nearest-neighbor Ising model in $\text{U}_3\text{Al}_2\text{Ge}_3$. Physical Review B, 2017, 96, .	3.2	1
31	Dynamics and inertia of a skyrmion in chiral magnets and interfaces: A linear response approach based on magnon excitations. Physical Review B, 2017, 96, .	3.2	16
32	Resonances in the Field-Angle-Resolved Thermal Conductivity of CeCoIn_5 . Physical Review Letters, 2017, 118, 197001.	7.8	4
33	Impurity-induced magnetic droplet in unconventional superconductors near a magnetic instability: Application to Nd-doped CeCoIn_5 . Physical Review B, 2017, 96, .	3.2	5
34	Frustration and chiral orderings in correlated electron systems. Reports on Progress in Physics, 2016, 79, 084504.	20.1	142
35	Intertwined Orders in Heavy-Fermion Superconductor CeCoIn_5 . Physical Review X, 2016, 6, .	8.9	35
36	Electrical Conductivity through a Single Atomic Step Measured with the Proximity-Induced Superconducting Pair Correlation. Physical Review Letters, 2016, 117, 116802.	7.8	23

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37	Edge instability in a chiral stripe domain under an electric current and skyrmion generation. Physical Review B, 2016, 94, .	3.2	52
38	Distinguishing between $\langle \mathbf{m} \cdot \mathbf{m} \rangle$ and $\langle \mathbf{m} \cdot \mathbf{m} \rangle + \langle \mathbf{m} \cdot \mathbf{m} \rangle$ symmetries in multiband superconductors through spontaneous magnetization pattern induced by a defect. Physical Review B, 2016, 94, .	3.2	18
39	Density functional theory study of skyrmion pinning by atomic defects in MnSi. Physical Review B, 2016, 93, .	3.2	18
40	Bubble and skyrmion crystals in frustrated magnets with easy-axis anisotropy. Physical Review B, 2016, 93, .	3.2	138
41	Magnetic Vortex Induced by Nonmagnetic Impurity in Frustrated Magnets. Physical Review Letters, 2016, 116, 187202.	7.8	15
42	Dynamics of Dirac strings and monopolelike excitations in chiral magnets under a current drive. Physical Review B, 2016, 93, .	3.2	20
43	Vortices, skyrmions, and chirality waves in frustrated Mott insulators with a quenched periodic array of impurities. Physical Review B, 2016, 94, .	3.2	41
44	Exchange field effect in the crystal-field ground state of CeMAl ₄ Si ₂ . Physical Review B, 2016, 94, .	3.2	1
45	Ginzburg-Landau theory for skyrmions in inversion-symmetric magnets with competing interactions. Physical Review B, 2016, 93, .	3.2	198
46	Skyrmion fractionalization and merons in chiral magnets with easy-plane anisotropy. Physical Review B, 2015, 91, .	3.2	161
47	Noncircular skyrmion and its anisotropic response in thin films of chiral magnets under a tilted magnetic field. Physical Review B, 2015, 92, .	3.2	33
48	Skyrmions in Functional Materials. Integrated Ferroelectrics, 2015, 166, 1-9.	0.7	0
49	Magnitude of the Magnetic Exchange Interaction in the Heavy-Fermion Antiferromagnet $\langle \mathbf{m} \cdot \mathbf{m} \rangle$ $\langle \mathbf{m} \cdot \mathbf{m} \rangle$ $\langle \mathbf{m} \cdot \mathbf{m} \rangle$. Physical Review Letters, 2014, 113, 246403.	7.8	32
50	Mutual synchronization of two stacks of intrinsic Josephson junctions in cuprate superconductors. Journal of Applied Physics, 2014, 115, 173901.	2.5	14
51	Ground state, collective mode, phase soliton and vortex in multiband superconductors. Journal of Physics Condensed Matter, 2014, 26, 493202.	1.8	31
52	Inversion of the upper critical field anisotropy in FeTeS films. Superconductor Science and Technology, 2014, 27, 044005.	3.5	10
53	$\langle \mathbf{m} \cdot \mathbf{m} \rangle$ characteristics of short superconducting nanowires with different bias and shunt: a dynamic approach. Journal of Physics Condensed Matter, 2014, 26, 155703.	1.8	1
54	Dynamics of skyrmions in chiral magnets: Dynamic phase transitions and equation of motion. Journal of Applied Physics, 2014, 115, 17D109.	2.5	8

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55	ac Current Generation in Chiral Magnetic Insulators and Skyrmion Motion induced by the Spin Seebeck Effect. Physical Review Letters, 2014, 112, 187203.	7.8	110
56	Internal modes of a skyrmion in the ferromagnetic state of chiral magnets. Physical Review B, 2014, 89, .	3.2	94
57	Stiffness from Disorder in Triangular-Lattice Ising Thin Films. Physical Review Letters, 2014, 112, 155702.	7.8	11
58	Topological defects as relics of emergent continuous symmetry and Higgs condensation of disorder in ferroelectrics. Nature Physics, 2014, 10, 970-977.	16.7	136
59	Dissipation in Josephson tunneling junctions at low temperatures. Physical Review B, 2014, 90, .	3.2	0
60	Comparing the dynamics of skyrmions and superconducting vortices. Physica C: Superconductivity and Its Applications, 2014, 503, 52-57.	1.2	9
61	Magnetic-field-induced phases in anisotropic triangular antiferromagnets: Application to CuCrO_2 . Physical Review B, 2014, 89, .	3.2	15
62	Characterization of the thin-film NbN superconductor for single-photon detection by transport measurements. Physical Review B, 2013, 87, .	3.2	45
63	Quantum motion and level quantization of a skyrmion in a pinning potential in chiral magnets. Physical Review B, 2013, 88, .	3.2	15
64	Synchronization of Josephson oscillations in a mesa array of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ through the Josephson plasma waves in the base crystal. Physica C: Superconductivity and Its Applications, 2013, 491, 24-29.	1.2	14
65	Linewidth of the electromagnetic radiation from Josephson junctions near cavity resonances. Physical Review B, 2013, 87, .	3.2	10
66	Role of kinetic inductance in transport properties of shunted superconducting nanowires. Journal of Physics Condensed Matter, 2013, 25, 325701.	1.8	6
67	Orbital Magnetism Induced by Heat Currents in Mott Insulators. Physical Review Letters, 2013, 111, 166602.	7.8	3
68	Particle model for skyrmions in metallic chiral magnets: Dynamics, pinning, and creep. Physical Review B, 2013, 87, .	3.2	248
69	Dissociation Transition of a Composite Lattice of Magnetic Vortices in the Flux-Flow Regime of Two-Band Superconductors. Physical Review Letters, 2013, 110, 087003.	7.8	27
70	Manipulation of skyrmions in nanodisks with a current pulse and skyrmion rectifier. Applied Physics Letters, 2013, 102, .	3.3	45
71	Driven Skyrmions and Dynamical Transitions in Chiral Magnets. Physical Review Letters, 2013, 110, 207202.	7.8	92
72	Stabilizing fractional vortices in multiband superconductors with periodic pinning arrays. Physical Review B, 2013, 87, .	3.2	20

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73	Cavity phenomenon and terahertz radiation of a tall stack of intrinsic Josephson junctions wrapped by a dielectric material. Superconductor Science and Technology, 2013, 26, 025003.	3.5	14
74	Phase solitons in multi-band superconductors with and without time-reversal symmetry. New Journal of Physics, 2012, 14, 063021.	2.9	29
75	Theory for measurements of penetration depth in magnetic superconductors by magnetic force microscopy and scanning SQUID microscopy. Physical Review B, 2012, 86, .	3.2	1
76	Vortex dynamics in ferromagnetic superconductors: Vortex clusters, domain walls, and enhanced viscosity. Physical Review B, 2012, 86, .	3.2	11
77	Enhancement of critical current density in superconducting/magnetic multilayers with slow magnetic relaxation dynamics and large magnetic susceptibility. Physical Review B, 2012, 86, .	3.2	3
78	Prediction of Polaronlike Vortices and a Dissociation Depinning Transition in Magnetic Superconductors: The Example of $\text{ErNi}_2\text{B}_2\text{C}$. Physical Review Letters, 2012, 109, 027001.	7.8	9
79	Massless Leggett Mode in Three-Band Superconductors with Time-Reversal-Symmetry Breaking. Physical Review Letters, 2012, 108, 177005.	7.8	79
80	Measuring spectrum of spin wave using vortex dynamics. Physical Review B, 2012, 85, .	3.2	5
81	In-plane dissipation as a possible synchronization mechanism for terahertz radiation from intrinsic Josephson junctions of layered superconductors. Physical Review B, 2012, 86, .	3.2	31
82	Thermally assisted penetration and exclusion of single vortex in mesoscopic superconductors. Physical Review B, 2012, 85, .	3.2	3
83	Self-induced pinning of vortices in the presence of ac driving force in magnetic superconductors. Physical Review B, 2012, 86, .	3.2	3
84	Measurement of the magnetic penetration depth of a superconducting MgB ₂ thin film with a large intraband diffusivity. Physical Review B, 2012, 86, .	3.2	8
85	Measurement of the magnetic penetration depth of a superconducting MgB ₂ thin film with a large intraband diffusivity. Physical Review B, 2012, 86, .	3.2	36
86	Radiation of Terahertz Electromagnetic Waves from Build-In Nano Josephson Junctions of Cuprate High-T _c Superconductors. Journal of Nanoscience and Nanotechnology, 2011, 11, 2916-2921.	0.9	1
87	Vortex states and the phase diagram of a multiple-component Ginzburg-Landau theory with competing repulsive and attractive vortex interactions. Physical Review B, 2011, 84, .	3.2	32
88	Synchronization in a one-dimensional array of point Josephson junctions coupled to a common load. Physical Review B, 2011, 84, .	3.2	25
89	Kink State in a Stack of Intrinsic Josephson Junctions in Layered High-T _c Superconductors and Terahertz Radiation. Journal of Superconductivity and Novel Magnetism, 2010, 23, 1025-1029.	1.8	4
90	Stability of the kink state in a stack of intrinsic Josephson junctions. Physica C: Superconductivity and Its Applications, 2010, 470, S201-S202.	1.2	3

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91	Tip-induced excitation of a single vortex in nano-size superconductors using scanning tunneling microscopy. Nanotechnology, 2010, 21, 465704.	2.6	5
92	Response and amplification of terahertz electromagnetic waves in intrinsic Josephson junctions of layered high- T_c superconductors. Physical Review B, 2010, 82, .	3.2	16
93	Phase dynamics in a stack of inductively coupled intrinsic Josephson junctions and terahertz electromagnetic radiation. Superconductor Science and Technology, 2010, 23, 053001.	3.5	94
94	Cavity phenomena in mesas of cuprate high- T_c superconductors under voltage bias. Physical Review B, 2009, 80, .	3.2	32
95	Phase dynamics in intrinsic Josephson junctions and their electrodynamics. Physical Review B, 2009, 79, .	3.2	25
96	Possible Dynamic States in Inductively Coupled Intrinsic Josephson Junctions of Layered High- T_c Superconductors. Physical Review Letters, 2008, 100, 247006.	7.8	133
97	Superconducting Pb Island Nanostructures Studied by Scanning Tunneling Microscopy and Spectroscopy. Physical Review Letters, 2008, 101, 167001.	7.8	102
98	Computer simulation on terahertz emission from intrinsic Josephson junctions of high- T_c superconductors. Physical Review B, 2008, 77, .	3.2	41
99	Three-dimensional phase-kink state in a thick stack of Josephson junctions and terahertz radiation. Physical Review B, 2008, 78, .	3.2	44