

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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149698

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102
all docs

102
docs citations

102
times ranked

2716
citing authors

#	ARTICLE	IF	CITATIONS
1	Particle model for skyrmions in metallic chiral magnets: Dynamics, pinning, and creep. Physical Review B, 2013, 87, .	3.2	248
2	Ginzburg-Landau theory for skyrmions in inversion-symmetric magnets with competing interactions. Physical Review B, 2016, 93, .	3.2	198
3	Skyrmion fractionalization and merons in chiral magnets with easy-plane anisotropy. Physical Review B, 2015, 91, .	3.2	161
4	Frustration and chiral orderings in correlated electron systems. Reports on Progress in Physics, 2016, 79, 084504.	20.1	142
5	Bubble and skyrmion crystals in frustrated magnets with easy-axis anisotropy. Physical Review B, 2016, 93, .	3.2	138
6	Topological defects as relics of emergent continuous symmetry and Higgs condensation of disorder in ferroelectrics. Nature Physics, 2014, 10, 970-977.	16.7	136
7	Possible Dynamic States in Inductively Coupled Intrinsic Josephson Junctions of Layered High-T _c Superconductors. Physical Review Letters, 2008, 100, 247006.	7.8	133
8	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
9	Superconducting Pb Island Nanostructures Studied by Scanning Tunneling Microscopy and Spectroscopy. Physical Review Letters, 2008, 101, 167001.	7.8	102
10	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
11	Internal modes of a skyrmion in the ferromagnetic state of chiral magnets. Physical Review B, 2014, 89, .	3.2	94
12	Driven Skyrmions and Dynamical Transitions in Chiral Magnets. Physical Review Letters, 2013, 110, 207202.	7.8	92
13	Thermal generation, manipulation and thermoelectric detection of skyrmions. Nature Electronics, 2020, 3, 672-679.	26.0	86
14	Massless Leggett Mode in Three-Band Superconductors with Time-Reversal-Symmetry Breaking. Physical Review Letters, 2012, 108, 177005.	7.8	79
15	Skyrmion Crystal from RKKY Interaction Mediated by 2D Electron Gas. Physical Review Letters, 2020, 124, 207201.	7.8	72
16	Pairing symmetry and spontaneous vortex-antivortex lattice in superconducting twisted-bilayer graphene: Bogoliubov-de Gennes approach. Physical Review B, 2018, 98, .	3.2	70
17	Meron, skyrmion, and vortex crystals in centrosymmetric tetragonal magnets. Physical Review B, 2021, 103, .	3.2	59
18	Edge instability in a chiral stripe domain under an electric current and skyrmion generation. Physical Review B, 2016, 94, .	3.2	52

#	ARTICLE	IF	CITATIONS
19	Characterization of the thin-film NbN superconductor for single-photon detection by transport measurements. <i>Physical Review B</i> , 2013, 87, .	3.2	45
20	Manipulation of skyrmions in nanodisks with a current pulse and skyrmion rectifier. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	45
21	Three-dimensional phase-kink state in a thick stack of Josephson junctions and terahertz radiation. <i>Physical Review B</i> , 2008, 78, .	3.2	44
22	Computer simulation on terahertz emission from intrinsic Josephson junctions of high-Tc superconductors. <i>Physical Review B</i> , 2008, 77, .	3.2	41
23	Vortices, skyrmions, and chirality waves in frustrated Mott insulators with a quenched periodic array of impurities. <i>Physical Review B</i> , 2016, 94, .	3.2	41
24	Evolution of topological skyrmions across the spin reorientation transition in Pt/Co/Ta multilayers. <i>Physical Review B</i> , 2018, 97, .	3.2	41
25	Spontaneous fractional Chern insulators in transition metal dichalcogenide moiré superlattices. <i>Physical Review Research</i> , 2021, 3, .	3.6	40
26	Josephson effect between a two-band superconductor with s -wave pairing symmetry and a conventional s -wave superconductor. <i>Physical Review B</i> , 2016, 94, .	3.2	36
27	Interwined Orders in Heavy-Fermion Superconductor CeCoIn_5 . <i>Physical Review X</i> , 2016, 6, .	8.9	35
28	Face Centered Cubic and Hexagonal Close Packed Skyrmion Crystals in Centrosymmetric Magnets. <i>Physical Review Letters</i> , 2018, 120, 077202.	7.8	35
29	Noncircular skyrmion and its anisotropic response in thin films of chiral magnets under a tilted magnetic field. <i>Physical Review B</i> , 2015, 92, .	3.2	33
30	Cavity phenomena in mesas of cuprate high-Tc superconductors under voltage bias. <i>Physical Review B</i> , 2009, 80, .	3.2	32
31	Vortex states and the phase diagram of a multiple-component Ginzburg-Landau theory with competing repulsive and attractive vortex interactions. <i>Physical Review B</i> , 2011, 84, .	3.2	32
32	Magnitude of the Magnetic Exchange Interaction in the Heavy-Fermion Antiferromagnet CeRhIn_5 . <i>Physical Review Letters</i> , 2014, 113, 246403.	7.8	32
33	In-plane dissipation as a possible synchronization mechanism for terahertz radiation from intrinsic Josephson junctions of layered superconductors. <i>Physical Review B</i> , 2012, 86, .	3.2	31
34	Ground state, collective mode, phase soliton and vortex in multiband superconductors. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 493202.	1.8	31
35	Distinguishing between s -wave and d -wave symmetries in multiband superconductors through spontaneous magnetization pattern induced by a defect. <i>Physical Review B</i> , 2016, 94, .	3.2	31
36	Phase solitons in multi-band superconductors with and without time-reversal symmetry. <i>New Journal of Physics</i> , 2012, 14, 063021.	2.9	29

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37	Dissociation Transition of a Composite Lattice of Magnetic Vortices in the Flux-Flow Regime of Two-Band Superconductors. <i>Physical Review Letters</i> , 2013, 110, 087003.	7.8	27
38	Phase dynamics in intrinsic Josephson junctions and their electrodynamics. <i>Physical Review B</i> , 2009, 79, .	3.2	25
39	Synchronization in a one-dimensional array of point Josephson junctions coupled to a common load. <i>Physical Review B</i> , 2011, 84, .	3.2	25
40	Electrical Conductivity through a Single Atomic Step Measured with the Proximity-Induced Superconducting Pair Correlation. <i>Physical Review Letters</i> , 2016, 117, 116802.	7.8	23
41	Stabilizing fractional vortices in multiband superconductors with periodic pinning arrays. <i>Physical Review B</i> , 2013, 87, .	3.2	20
42	Dynamics of Dirac strings and monopolelike excitations in chiral magnets under a current drive. <i>Physical Review B</i> , 2016, 93, .	3.2	20
43	Topological sliding moiré heterostructure. <i>Physical Review B</i> , 2020, 101, .	3.2	20
44	Spin-texture-driven electrical transport in multi-Q antiferromagnets. <i>Communications Physics</i> , 2021, 4, .	5.3	19
45	Density functional theory study of skyrmion pinning by atomic defects in MnSi. <i>Physical Review B</i> , 2016, 93, .	3.2	18
46	Kelvin modes of a skyrmion line in chiral magnets and the associated magnon transport. <i>Physical Review B</i> , 2019, 99, .	3.2	18
47	Current-Induced Reversal of Anomalous Hall Conductance in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2020, 125, 226401.	7.8	18
48	Response and amplification of terahertz electromagnetic waves in intrinsic Josephson junctions of layered high- T_c superconductors. <i>Physical Review B</i> , 2010, 82, .	3.2	16
49	Dynamics and inertia of a skyrmion in chiral magnets and interfaces: A linear response approach based on magnon excitations. <i>Physical Review B</i> , 2017, 96, .	3.2	16
50	Anisotropic magnetocrystalline coupling of the skyrmion lattice in MnSi. <i>Physical Review B</i> , 2018, 97, .	3.2	16
51	Quantum motion and level quantization of a skyrmion in a pinning potential in chiral magnets. <i>Physical Review B</i> , 2013, 88, .	3.2	15
52	Magnetic-field-induced phases in anisotropic triangular antiferromagnets: Application to CuCrO_2 . <i>Physical Review B</i> , 2014, 89, .	3.2	15
53	Magnetic Vortex Induced by Nonmagnetic Impurity in Frustrated Magnets. <i>Physical Review Letters</i> , 2016, 116, 187202.	7.8	15
54	Strain-induced intervortex interaction and vortex lattices in tetragonal superconductors. <i>Physical Review B</i> , 2017, 95, .	3.2	15

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55	Tunable emergent heterostructures in a prototypical correlated metal. <i>Nature Physics</i> , 2018, 14, 456-460.	16.7	15
56	Synchronization of Josephson oscillations in a mesa array of Bi ₂ Sr ₂ CaCu ₂ O ₈ + $\hat{\Gamma}$ through the Josephson plasma waves in the base crystal. <i>Physica C: Superconductivity and Its Applications</i> , 2013, 491, 24-29.	1.2	14
57	Cavity phenomenon and terahertz radiation of a tall stack of intrinsic Josephson junctions wrapped by a dielectric material. <i>Superconductor Science and Technology</i> , 2013, 26, 025003.	3.5	14
58	Mutual synchronization of two stacks of intrinsic Josephson junctions in cuprate superconductors. <i>Journal of Applied Physics</i> , 2014, 115, 173901.	2.5	14
59	Dimension transcendence and anomalous charge transport in magnets with moving multiple-textures. <i>Physical Review Research</i> , 2020, 2, .	3.6	12
60	Floquet engineering of Kitaev quantum magnets. <i>Communications Physics</i> , 2022, 5, .	5.3	12
61	Vortex dynamics in ferromagnetic superconductors: Vortex clusters, domain walls, and enhanced viscosity. <i>Physical Review B</i> , 2012, 86, .	3.2	11
62	Stiffness from Disorder in Triangular-Lattice Ising Thin Films. <i>Physical Review Letters</i> , 2014, 112, 155702.	7.8	11
63	Skyrmion lattice creep at ultra-low current densities. <i>Communications Materials</i> , 2020, 1, .	6.9	11
64	Linewidth of the electromagnetic radiation from Josephson junctions near cavity resonances. <i>Physical Review B</i> , 2013, 87, .	3.2	10
65	Inversion of the upper critical field anisotropy in FeTeS films. <i>Superconductor Science and Technology</i> , 2014, 27, 044005.	3.5	10
66	Interplay of the Spin Density Wave and a Possible Fulde-Ferrell-Larkin-Ovchinnikov State in CeCoIn_5 in Rotating Magnetic Field. <i>Physical Review Letters</i> , 2020, 124, 217001.	7.8	10
67	Prediction of Polaritonlike Vortices and a Dissociation-Depinning Transition in Magnetic Superconductors: The Example of $\text{ErNi}_2\text{B}_2\text{C}$. <i>Physical Review Letters</i> , 2019, 122, 027001.	7.8	9
68	Comparing the dynamics of skyrmions and superconducting vortices. <i>Physica C: Superconductivity and Its Applications</i> , 2014, 503, 52-57.	1.2	9
69	Field-free topological behavior in the magnetic domain wall of ferrimagnetic GdFeCo. <i>Nature Communications</i> , 2021, 12, 5604.	12.8	9
70	Measurement of the magnetic penetration depth of a superconducting MgB ₂ thin film with a large intraband diffusivity. <i>Physical Review B</i> , 2012, 86, .	3.2	8
71	Dynamics of skyrmions in chiral magnets: Dynamic phase transitions and equation of motion. <i>Journal of Applied Physics</i> , 2014, 115, 17D109.	2.5	8
72	Large tunable anomalous Hall effect in the kagome antiferromagnet $\text{Ru}_4\text{V}_2\text{O}_{14}$. <i>Physical Review B</i> , 2020, 102, .	3.2	8

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73	Role of kinetic inductance in transport properties of shunted superconducting nanowires. Journal of Physics Condensed Matter, 2013, 25, 325701.	1.8	6
74	Nontrivial topology and localization in the double exchange model with possible applications to perovskite manganites. Physical Review B, 2018, 98, .	3.2	6
75	Stable Higgs mode in anisotropic quantum magnets. Physical Review B, 2020, 102, .	3.2	6
76	Inducing and controlling superconductivity in the Hubbard honeycomb model using an electromagnetic drive. Physical Review B, 2021, 103, .	3.2	6
77	Enhanced superconductivity in quasiperiodic crystals. Physical Review Research, 2021, 3, .	3.6	6
78	Tip-induced excitation of a single vortex in nano-size superconductors using scanning tunneling microscopy. Nanotechnology, 2010, 21, 465704.	2.6	5
79	Measuring spectrum of spin wave using vortex dynamics. Physical Review B, 2012, 85, .	3.2	5
80	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
81	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
82	Switching dynamics of the spin density wave in superconducting CeCoIn ₅ . Physical Review B, 2017, 95, .	3.2	4
83	Resonances in the Field-Angle-Resolved Thermal Conductivity of $CeCoIn_5$. Physical Review Letters, 2017, 118, 197001.	7.8	4
84	Reentrant Fulde-Ferrell-Larkin-Ovchinnikov state in small-sized superconductors. Physical Review B, 2019, 99, .	3.2	4
85	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
86	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
87	Thermally assisted penetration and exclusion of single vortex in mesoscopic superconductors. Physical Review B, 2012, 85, .	3.2	3
88	Self-induced pinning of vortices in the presence of ac driving force in magnetic superconductors. Physical Review B, 2012, 86, .	3.2	3
89	Orbital Magnetism Induced by Heat Currents in Mott Insulators. Physical Review Letters, 2013, 111, 166602.	7.8	3
90	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

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91	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
92	$I \propto V$ characteristics of short superconducting nanowires with different bias and shunt: a dynamic approach. Journal of Physics Condensed Matter, 2014, 26, 155703.	1.8	1
93	Exchange field effect in the crystal-field ground state of CeMAl ₄ Si ₂ . Physical Review B, 2016, 94, .	3.2	1
94	Realization of the axial next-nearest-neighbor Ising model in U ₃ Al ₂ Ge ₃ . Physical Review B, 2017, 96, .	3.2	1
95	Gapless Higgs mode in the Fulde-Ferrell-Larkin-Ovchinnikov state of a superconductor. Physical Review B, 2022, 105, .	3.2	1
96	Dissipation in Josephson tunneling junctions at low temperatures. Physical Review B, 2014, 90, .	3.2	0
97	Skyrmions in Functional Materials. Integrated Ferroelectrics, 2015, 166, 1-9.	0.7	0
98	Intrinsic left-handed electromagnetic properties in anisotropic superconductors. Applied Physics Letters, 2017, 110, 172602.	3.3	0
99	Multiple phases with intertwined magnetic and superconducting orders in Nd-doped CeCoIn_5 . Physical Review B, 2018, 97, .	3.2	0