

Dung-Hai Lee

List of Publications by Year in descending order

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100
papers

8,369
citations

71004

43
h-index

49824

91
g-index

100
all docs

100
docs citations

100
times ranked

7813
citing authors

#	ARTICLE	IF	CITATIONS
1	Unconventional spectral signature of Tc in a pure d-wave superconductor. Nature, 2022, 601, 562-567.	13.7	8
2	Particle-hole asymmetric superconducting coherence peaks in overdoped cuprates. Nature Physics, 2022, 18, 551-557.	6.5	5
3	Superconductor-to-metal transition in overdoped cuprates. Npj Quantum Materials, 2021, 6, .	1.8	29
4	Superconducting Fluctuations in Overdoped Bi Physical Review X, 2021, 11, .	2.8	20
5	Non-abelian bosonization in two and three spatial dimensions and applications. Nuclear Physics B, 2021, 972, 115565.	0.9	6
6	The non-regularizability of gapless free fermion Hamiltonian protected by on-site symmetries. Nuclear Physics B, 2020, 954, 115005.	0.9	4
7	A holographic theory for the phase transitions between fermionic symmetry-protected topological states. Nuclear Physics B, 2019, 949, 114799.	0.9	6
8	Classification of topological trivial matter with non-trivial defects. Science Bulletin, 2019, 64, 575-579.	4.3	2
9	Nematic Energy Scale and the Missing Electron Pocket in FeSe. Physical Review X, 2019, 9, .	2.8	66
10	Enhancement of superconductivity by frustrating the charge order. Physical Review B, 2019, 100, .	1.1	16
11	Electronic and phononic properties of a two-dimensional electron gas coupled to dipolar phonons via small-momentum-transfer scattering. Physical Review B, 2019, 100, .	1.1	15
12	Routes to High-Temperature Superconductivity: A Lesson from FeSe/SrTiO3. Annual Review of Condensed Matter Physics, 2018, 9, 261-282.	5.2	59
13	Rapid change of superconductivity and electron-phonon coupling through critical doping in Bi-2212. Science, 2018, 362, 62-65.	6.0	98
14	Visualization of the periodic modulation of Cooper pairing in a cuprate superconductor. Nature Physics, 2018, 14, 1178-1182.	6.5	42
15	Spectral Evidence for Emergent Order in Ba Physical Review Letters, 2018, 121, 127001.	2.9	11
16	Symmetry protected topological Luttinger liquids and the phase transition between them. Science Bulletin, 2018, 63, 753-758.	4.3	30
17	Ubiquitous strong electron-phonon coupling at the interface of FeSe/SrTiO3. Nature Communications, 2017, 8, 14468.	5.8	51
18	Hunting down unconventional superconductors. Science, 2017, 357, 32-33.	6.0	9

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19	Nature of the effective interaction in electron-doped cuprate superconductors: A sign-problem-free quantum Monte Carlo study. <i>Physical Review B</i> , 2017, 95, .	1.1	29
20	What makes the T_c of monolayer FeSe on SrTiO ₃ so high: a sign-problem-free quantum Monte Carlo study. <i>Science Bulletin</i> , 2016, 61, 925-930.	4.3	94
21	Superconducting Gap Anisotropy in Monolayer FeSe Thin Film. <i>Physical Review Letters</i> , 2016, 117, 117001.	2.9	93
22	Visualizing the evolution from the Mott insulator to a charge-ordered insulator in lightly doped cuprates. <i>Nature Physics</i> , 2016, 12, 1047-1051.	6.5	82
23	Compass impurity model of Tb substitution in $\text{Sr}_2\text{CuO}_2\text{As}_2$. <i>Physical Review B</i> , 2016, 94, .		
24	Characterization of collective ground states in single-layer NbSe ₂ . <i>Nature Physics</i> , 2016, 12, 92-97.	6.5	536
25	Time-reversal-invariant topological superconductivity in doped BiH. <i>Physical Review B</i> , 2015, 91, .	1.1	18
26	What makes the T_c of FeSe/SrTiO ₃ so high?. <i>Chinese Physics B</i> , 2015, 24, 117405.	0.7	75
27	Resolving unoccupied electronic states with laser ARPES in bismuth-based cuprate superconductors. <i>Physical Review B</i> , 2015, 91, .	1.1	9
28	Interface Ferroelectric Transition near the Gap-Opening Temperature in a Single-Unit-Cell FeSe Film Grown on Nb-Doped SrTiO ₃ Substrate. <i>Physical Review Letters</i> , 2015, 114, 037002.	2.9	23
29	Quantum phase transitions between a class of symmetry protected topological states. <i>Nuclear Physics B</i> , 2015, 896, 330-359.	0.9	26
30	Nematicity and quantum paramagnetism in FeSe. <i>Nature Physics</i> , 2015, 11, 959-963.	6.5	190
31	Neutron Scattering Measurements of Spatially Anisotropic Magnetic Exchange Interactions in Semiconducting $\text{K}_0.85\text{Fe}_1.54\text{Se}_2$ ($T_N=280\text{K}$). <i>Physical Review Letters</i> , 2014, 112, 177002.	2.9	17
32	Doping Dependence of the Anisotropic Quasiparticle Interference in NaFeCoAs Iron-Based Superconductors. <i>Physical Review Letters</i> , 2014, 112, 127001.		
33	Spin quantum Hall effects in featureless nonfractionalized spin-1 magnets. <i>Physical Review B</i> , 2014, 89, .	1.1	17
34	Interfacial mode coupling as the origin of the enhancement of T_c in FeSe films on SrTiO ₃ . <i>Nature</i> , 2014, 515, 245-248.	18.7	567
35	Ultrafast quenching of electron-boson interaction and superconducting gap in a cuprate superconductor. <i>Nature Communications</i> , 2014, 5, 4959.	5.8	50
36	Underdoped superconducting cuprates as topological superconductors. <i>Nature Physics</i> , 2014, 10, 634-637.	6.5	26

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37	Concepts relating magnetic interactions, intertwined electronic orders, and strongly correlated superconductivity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17623-17630.	3.3	169
38	Visualizing the microscopic coexistence of spin density wave and superconductivity in underdoped NaFe $1\hat{a}^{\sim}$ xCo x As. Nature Communications, 2013, 4, 1596.	5.8	49
39	Photoelectron spin-flipping and texture manipulation in a topological insulator. Nature Physics, 2013, 9, 293-298.	6.5	176
40	Signatures of superconductivity and pseudogap formation in nonequilibrium nodal quasiparticles revealed by ultrafast angle-resolved photoemission. Physical Review B, 2013, 88, .	1.1	32
41	Enhanced low-energy magnetic excitations via suppression of the itinerancy in Fe \hat{a}^{\sim} Cu \hat{a}^{\sim} Te \hat{a}^{\sim} system. Physical Review B, 2013, 88, .	1.1	14
42	Fermiology, orbital order, orbital fluctuations, and Cooper pairing in iron-based superconductors. Physical Review B, 2013, 88, .	1.1	51
43	Fractionalized topological insulators from frustrated spin models in three dimensions. Physical Review B, 2012, 85, .	1.1	13
44	Functional renormalization group and variational Monte Carlo studies of the electronic instabilities in graphene near $1/4$ doping. Physical Review B, 2012, 85, .	1.1	180
45	Topological superconducting phase in the vicinity of ferromagnetic phases. Physical Review B, 2012, 86, .	1.1	40
46	Topological relation between bulk gap nodes and surface bound states: Application to iron-based superconductors. Physical Review B, 2012, 86, .	1.1	29
47	High-temperature superconductivity at the FeSe/SrTiO 3 interface. Physical Review B, 2012, 86, .	1.1	126
48	Magnetic order tuned by Cu substitution in Fe \hat{a}^{\sim} Cu \hat{a}^{\sim} Te \hat{a}^{\sim} system. Physical Review B, 2012, 86, .	1.1	4
49	Quantum torus chain. Physical Review B, 2012, 86, .	1.1	4
50	Temperature-Dependent Transformation of the Magnetic Excitation Spectrum on Approaching Superconductivity in Fe $1+y\hat{a}^{\sim}$ (Ni/Cu) x Te 0.5 Se 0.5 . Physical Review Letters, 2012, 109, 227002.	2.9	20
51	Nodal rings. Nature Physics, 2012, 8, 364-365.	6.5	10
52	Electronic instabilities in iron-based superconductors: A variational Monte Carlo study. Physical Review B, 2011, 83, .	1.1	16
53	Topological insulators on a Mobius strip. Physical Review B, 2011, 84, .	1.1	15
54	A reflection on the contrast between the Cooper pairing in iron-based and conventional superconductors. Frontiers of Physics, 2011, 6, 350-356.	2.4	0

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55	Continuous quantum phase transition between two topologically distinct valence bond solid states associated with the same spin value. <i>Physical Review B</i> , 2011, 83, .	1.1	15
56	Fermi-surface reconstruction in a smectic phase of a high-temperature superconductor. <i>Physical Review B</i> , 2011, 84, .	1.1	57
57	The Electron-Pairing Mechanism of Iron-Based Superconductors. <i>Science</i> , 2011, 332, 200-204.	6.0	233
58	Spin excitations of the block-antiferromagnetic state in $K0.8Fe1.6Se2$. <i>Physical Review B</i> , 2011, 84, .	1.1	24
59	Effects of Interaction on Quantum Spin Hall Insulators. <i>Physical Review Letters</i> , 2011, 107, 166806.	2.9	50
60	Quantum valley Hall effect in proximity-induced superconducting graphene: An experimental window for deconfined quantum criticality. <i>Physical Review B</i> , 2010, 81, .	1.1	31
61	Nodes in the gap function of $LaFePO$, the gap function of the $Fe(Se,Te)$ systems, and the STM signature of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mi} \rangle \text{s} \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle \hat{\Delta} \pm \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{part}$ <i>Physical Review B</i> , 2010, 81, .	1.1	75
62	Antiferromagnetically driven electronic correlations in iron pnictides and cuprates. <i>Physical Review B</i> , 2009, 80, .	1.1	119
63	Antiferromagnetic correlation and the pairing mechanism of the cuprates and iron pnictides: A view from the functional renormalization group studies. <i>Europhysics Letters</i> , 2009, 85, 37005.	0.7	68
64	Competition between Superconductivity and Charge-density Wave Order in $Na0.3CoO2 \cdot 1.3H2O$. <i>Journal of Superconductivity and Novel Magnetism</i> , 2009, 22, 295-298.	0.8	3
65	Surface States of Topological Insulators: The Dirac Fermion in Curved Two-Dimensional Spaces. <i>Physical Review Letters</i> , 2009, 103, 196804.	2.9	99
66	Functional Renormalization-Group Study of the Pairing Symmetry and Pairing Mechanism of the FeAs-Based High-Temperature Superconductor. <i>Physical Review Letters</i> , 2009, 102, 047005.	2.9	428
67	How Cooper pairs vanish approaching the Mott insulator in $Bi2Sr2CaCu2O8 + \delta$. <i>Nature</i> , 2008, 454, 1072-1078.	13.7	314
68	Origin of the energy bandgap in epitaxial graphene. <i>Nature Materials</i> , 2008, 7, 259-260.	13.3	175
69	Edge Solitons of Topological Insulators and Fractionalized Quasiparticles in Two Dimensions. <i>Physical Review Letters</i> , 2007, 99, 196805.	2.9	135
70	Phonons and d-wave pairing in the two-dimensional Hubbard model. <i>Physical Review B</i> , 2007, 75, .	1.1	48
71	Checkerboard charge density wave and pseudogap of high-Tc cuprate. <i>Physical Review B</i> , 2006, 74, .	1.1	72
72	First direct observation of Dirac fermions in \hat{A} graphite. <i>Nature Physics</i> , 2006, 2, 595-599.	6.5	466

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73	Coexistence of sharp quasiparticle dispersions and disorder features in graphite. Physical Review B, 2005, 71, .	1.1	59
74	Phonons in Hubbard ladders studied within the framework of the one-loop renormalization group. Physical Review B, 2005, 71, .	1.1	9
75	Atomic-Scale Sources and Mechanism of Nanoscale Electronic Disorder in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Science, 2005, 309, 1048-1052.	6.0	393
76	Mott Insulators without Symmetry Breaking. Physical Review Letters, 2004, 92, 096401.	2.9	34
77	Flux Period, Spin Gap, and Pairing in the One-Dimensional $t\tilde{J}^2$ Model. Physical Review Letters, 2004, 93, 046401.	2.9	8
78	Role of interference in millimeter-wave-driven dc transport in a two-dimensional electron gas. Physical Review B, 2004, 69, .	1.1	19
79	A \tilde{c} checkerboard \tilde{c} ™ electronic crystal state in lightly hole-doped Ca _{2-x} NaxCuO ₂ Cl ₂ . Nature, 2004, 430, 1001-1005.	13.7	620
80	Doped $t\tilde{J}$ model on a triangular lattice: Possible application to Na _x CoO ₂ \cdot yH ₂ O and Na $1\tilde{x}$ TiO ₂ . Physical Review B, 2004, 69, .	1.1	157
81	Inhomogeneity in Doped Mott Insulator. Journal of Low Temperature Physics, 2003, 131, 181-192.	0.6	2
82	Two classes of Mott insulator. Physical Review B, 2003, 67, .	1.1	21
83	Quasiparticle scattering interference in high-temperature superconductors. Physical Review B, 2003, 67, .	1.1	270
84	Duality relation for frustrated spin models. Physical Review E, 2003, 67, 026111.	0.8	1
85	Duality between Unidirectional Charge-Density-Wave Order and Superconductivity. Physical Review Letters, 2002, 88, 227003.	2.9	20
86	Competing order in the mixed state of high-temperature superconductors. Physical Review B, 2002, 66, .	1.1	71
87	THE CHERN-SIMONS INVARIANT IN THE BERRY PHASE OF A TWO BY TWO HAMILTONIAN. International Journal of Modern Physics B, 2002, 16, 1907-1914.	1.0	0
88	Imaging Quasiparticle Interference in Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Science, 2002, 297, 1148-1151.	6.0	538
89	THE CHERN-SIMONS INVARIANT IN THE BERRY PHASE OF A TWO BY TWO HAMILTONIAN. , 2002, , .		0
90	ANTIFERROMAGNETISM, STRIPES, AND SUPERCONDUCTIVITY IN THE $t\tilde{J}$ MODEL WITH COULOMB INTERACTION. International Journal of Modern Physics B, 2001, 15, 1117-1126.	1.0	23

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91	GAUGE FLUCTUATIONS IN A RVB THEORY OF D-WAVE SUPERCONDUCTING CUPRATES. International Journal of Modern Physics B, 2001, 15, 1338-1346.	1.0	1
92	Staggered currents in the vortex core of cuprate superconductors. Physical Review B, 2001, 64, .	1.1	3
93	Pairing near the Mott insulating limit. Physical Review B, 2001, 65, .	1.1	26
94	Staggered Currents in the Mixed State. Physical Review Letters, 2001, 87, 167004.	2.9	28
95	Superfluid Density in the Density-Wave Scenario. Physical Review Letters, 2001, 87, 077004.	2.9	32
96	GAUGE FLUCTUATIONS IN A RVB THEORY OF D-WAVE SUPERCONDUCTING CUPRATES. , 2000, , .		0
97	Low Energy Properties of (n,n) Carbon Nanotubes. Physical Review Letters, 1997, 78, 4245-4248.	2.9	129
98	Dynamic Scaling of Magnetic Flux Noise near the Kosterlitz-Thouless-Berezinskii Transition in Overdamped Josephson Junction Arrays. Physical Review Letters, 1996, 76, 2551-2554.	2.9	49
99	Effects of Electron-Electron Interactions on the Integer Quantum Hall Transitions. Physical Review Letters, 1996, 76, 4014-4017.	2.9	75
100	Critical Conductance and Its Fluctuations at Integer Hall Plateau Transitions. Physical Review Letters, 1996, 77, 4426-4429.	2.9	62