Dung-Hai Lee

List of Publications by Year
in descending order

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100 papers	8,369 citations	61984 43 h-index	43889 91 g-index
100 all docs	100 docs citations	100 times ranked	6974 citing authors

#	Article	IF	Citations
1	A â€˜checkerboardâ€™ electronic crystal state in lightly hole-doped Ca2-xNaxCuO2Cl2. Nature, 2004, 430, 1001-1005.	27.8	620
2	Interfacial mode coupling as the origin of the enhancement of Tc in FeSe films on SrTiO3. Nature, 2014, 515, 245-248.	27.8	567
3	Imaging Quasiparticle Interference in Bi2Sr2CaCu2O8+delta. Science, 2002, 297, 1148-1151.	12.6	538
4	Characterization of collective ground states in single-layer NbSe2. Nature Physics, 2016, 12, 92-97.	16.7	536
5	First direct observation of Dirac fermions inÂgraphite. Nature Physics, 2006, 2, 595-599.	16.7	466
6	Functional Renormalization-Group Study of the Pairing Symmetry and Pairing Mechanism of the FeAs-Based High-Temperature Superconductor. Physical Review Letters, 2009, 102, 047005.	7.8	428
7	Atomic-Scale Sources and Mechanism of Nanoscale Electronic Disorder in Bi2Sr2CaCu2O8+Â. Science, 2005, 309, 1048-1052.	12.6	393
8	How Cooper pairs vanish approaching the Mott insulator in Bi2Sr2CaCu2O8+Î´. Nature, 2008, 454, 1072-1078.	27.8	314
9	Quasiparticle scattering interference in high-temperature superconductors. Physical Review B, 2003, 67, .	3.2	270
10	The Electron-Pairing Mechanism of Iron-Based Superconductors. Science, 2011, 332, 200-204.	12.6	233
11	Nematicity and quantum paramagnetism in FeSe. Nature Physics, 2015, 11, 959-963.	16.7	190
12	Functional renormalization group and variational Monte Carlo studies of the electronic instabilities in graphene near<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mfrac><mml:mn>1</mml:mn><mml:mn>4</mml:mn></mml:mfrac></mml:math>doping. Physical Review B, 2012, 85, .	3.2	180
13	Photoelectron spin-flipping and texture manipulation in a topological insulator. Nature Physics, 2013, 9, 293-298.	16.7	176
14	Origin of the energy bandgap in epitaxial graphene. Nature Materials, 2008, 7, 259-260.	27.5	175
15	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.	7.1	169
16	Dopedtâ^'Jmodel on a triangular lattice: Possible application toNaxCoO2â‹…yH2OandNa1â^'xTiO2. Physical Review B, 2004, 69, .	3.2	157
17	Edge Solitons of Topological Insulators and Fractionalized Quasiparticles in Two Dimensions. Physical Review Letters, 2007, 99, 196805.	7.8	135
18	Low Energy Properties of(n,n)Carbon Nanotubes. Physical Review Letters, 1997, 78, 4245-4248.	7.8	129

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19	High-temperature superconductivity at the FeSe/SrTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>interface. Physical Review B, 2012, 86, .	3.2	126
20	Antiferromagnetically driven electronic correlations in iron pnictides and cuprates. Physical Review B, 2009, 80, .	3.2	119
21	Surface States of Topological Insulators: The Dirac Fermion in Curved Two-Dimensional Spaces. Physical Review Letters, 2009, 103, 196804.	7.8	99
22	Rapid change of superconductivity and electron-phonon coupling through critical doping in Bi-2212. Science, 2018, 362, 62-65.	12.6	98
23	What makes the Tc of monolayer FeSe on SrTiO3 so high: a sign-problem-free quantum Monte Carlo study. Science Bulletin, 2016, 61, 925-930.	9.0	94
24	Superconducting Gap Anisotropy in Monolayer FeSe Thin Film. Physical Review Letters, 2016, 117, 117001.	7.8	93
25	Visualizing the evolution from the Mott insulator to a charge-ordered insulator in lightly dopedÂcuprates. Nature Physics, 2016, 12, 1047-1051.	16.7	82
26	Effects of Electron-Electron Interactions on the Integer Quantum Hall Transitions. Physical Review Letters, 1996, 76, 4014-4017.	7.8	75
27	Nodes in the gap function of LaFePO, the gap function of the Fe(Se,Te) systems, and the STM signature of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>s</mml:mi><mml:mo>Â±</mml:mo></mml:msub></mml:mrow></mml:math>pa Physical Review B, 2010, 81, .	3.2	75
28	What makes the T _c of FeSe/SrTiO ₃ so high?. Chinese Physics B, 2015, 24, 117405.	1.4	75
29	Checkerboard charge density wave and pseudogap of high-Tccuprate. Physical Review B, 2006, 74, .	3.2	72
30	Competing order in the mixed state of high-temperature superconductors. Physical Review B, 2002, 66, .	3.2	71
31	Antiferromagnetic correlation and the pairing mechanism of the cuprates and iron pnictides: A view from the functional renormalization group studies. Europhysics Letters, 2009, 85, 37005.	2.0	68
32	Nematic Energy Scale and the Missing Electron Pocket in FeSe. Physical Review X, 2019, 9, .	8.9	66
33	Critical Conductance and Its Fluctuations at Integer Hall Plateau Transitions. Physical Review Letters, 1996, 77, 4426-4429.	7.8	62
34	Coexistence of sharp quasiparticle dispersions and disorder features in graphite. Physical Review B, 2005, 71, .	3.2	59
35	Routes to High-Temperature Superconductivity: A Lesson from FeSe/SrTiO3. Annual Review of Condensed Matter Physics, 2018, 9, 261-282.	14.5	59
36	Fermi-surface reconstruction in a smectic phase of a high-temperature superconductor. Physical Review B, 2011, 84, .	3.2	57

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37	Fermiology, orbital order, orbital fluctuations, and Cooper pairing in iron-based superconductors. Physical Review B, 2013, 88, .	3.2	51
38	Ubiquitous strong electronâ€“phonon coupling at the interface of FeSe/SrTiO3. Nature Communications, 2017, 8, 14468.	12.8	51
39	Effects of Interaction on Quantum Spin Hall Insulators. Physical Review Letters, 2011, 107, 166806.	7.8	50
40	Ultrafast quenching of electronâ€“boson interaction and superconducting gap in a cuprate superconductor. Nature Communications, 2014, 5, 4959.	12.8	50
41	Dynamic Scaling of Magnetic Flux Noise near the Kosterlitz-Thouless-Berezinskii Transition in Overdamped Josephson Junction Arrays. Physical Review Letters, 1996, 76, 2551-2554.	7.8	49
42	Visualizing the microscopic coexistence of spin density wave and superconductivity in underdoped NaFe1â^'xCoxAs. Nature Communications, 2013, 4, 1596.	12.8	49
43	Phonons andd-wave pairing in the two-dimensional Hubbard model. Physical Review B, 2007, 75, .	3.2	48
44	Visualization of the periodic modulation of Cooper pairing in a cuprate superconductor. Nature Physics, 2018, 14, 1178-1182.	16.7	42
45	Topological superconducting phase in the vicinity of ferromagnetic phases. Physical Review B, 2012, 86, .	3.2	40
46	Mott Insulators without Symmetry Breaking. Physical Review Letters, 2004, 92, 096401.	7.8	34
47	Superfluid Density in thed-Density-Wave Scenario. Physical Review Letters, 2001, 87, 077004.	7.8	32
48	Signatures of superconductivity and pseudogap formation in nonequilibrium nodal quasiparticles revealed by ultrafast angle-resolved photoemission. Physical Review B, 2013, 88, .	3.2	32
49	Quantum valley Hall effect in proximity-induced superconducting graphene: An experimental window for deconfined quantum criticality. Physical Review B, 2010, 81, .	3.2	31
50	Symmetry protected topological Luttinger liquids and the phase transition between them. Science Bulletin, 2018, 63, 753-758.	9.0	30
51	Topological relation between bulk gap nodes and surface bound states: Application to iron-based superconductors. Physical Review B, 2012, 86, .	3.2	29
52	Nature of the effective interaction in electron-doped cuprate superconductors: A sign-problem-free quantum Monte Carlo study. Physical Review B, 2017, 95, .	3.2	29
53	Superconductor-to-metal transition in overdoped cuprates. Npj Quantum Materials, 2021, 6, .	5.2	29
54	Staggered Currents in the Mixed State. Physical Review Letters, 2001, 87, 167004.	7.8	28

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55	Pairing near the Mott insulating limit. Physical Review B, 2001, 65, .	3.2	26
56	Underdoped superconducting cuprates as topological superconductors. Nature Physics, 2014, 10, 634-637.	16.7	26
57	Quantum phase transitions between a class of symmetry protected topological states. Nuclear Physics B, 2015, 896, 330-359.	2.5	26
58	Spin excitations of the block-antiferromagnetic state in K0.8Fe1.6Se2. Physical Review B, 2011, 84, .	3.2	24
59	ANTIFERROMAGNETISM, STRIPES, AND SUPERCONDUCTIVITY IN THE tâ€“J MODEL WITH COULOMB INTERACTION. International Journal of Modern Physics B, 2001, 15, 1117-1126.	2.0	23
60	Interface Ferroelectric Transition near the Gap-Opening Temperature in a Single-Unit-Cell FeSe Film Grown on Nb-DopedSrTiO3Substrate. Physical Review Letters, 2015, 114, 037002.	7.8	23
61	Two classes of Mott insulator. Physical Review B, 2003, 67, .	3.2	21
62	Duality between Unidirectional Charge-Density-Wave Order and Superconductivity. Physical Review Letters, 2002, 88, 227003.	7.8	20
63	Temperature-Dependent Transformation of the Magnetic Excitation Spectrum on Approaching Superconductivity inFe1+yâ^'x(Ni/Cu)xTe0.5Se0.5. Physical Review Letters, 2012, 109, 227002.	7.8	20
64	Superconducting Fluctuations in Overdoped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Physical Review X, 2021, 11, .	8.9	20
65	Role of interference in millimeter-wave-driven dc transport in a two-dimensional electron gas. Physical Review B, 2004, 69, .	3.2	19
66	Time-reversal-invariant topological superconductivity inn-doped BiH. Physical Review B, 2015, 91, .	3.2	18
67	Neutron Scattering Measurements of Spatially Anisotropic Magnetic Exchange Interactions in SemiconductingK0.85Fe1.54Se2(TN=280â€‰â€‰K). Physical Review Letters, 2014, 112, 177002.	7.8	17
68	Spin quantum Hall effects in featureless nonfractionalized spin-1 magnets. Physical Review B, 2014, 89, .	3.2	17
69	Electronic instabilities in iron-based superconductors: A variational Monte Carlo study. Physical Review B, 2011, 83, .	3.2	16
70	Enhancement of superconductivity by frustrating the charge order. Physical Review B, 2019, 100, .	3.2	16
71	Topological insulators on a Mobius strip. Physical Review B, 2011, 84, .	3.2	15
72	Continuous quantum phase transition between two topologically distinct valence bond solid states associated with the same spin value. Physical Review B, 2011, 83, .	3.2	15

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73	Magnetic order tuned by Cu substitution in Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1.1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>z</mml:mi></mml:mrow></mml:msub></mml:math>Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	15
74	Doping Dependence of the Anisotropic Quasiparticle Interference in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>NaFe</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi mathvariant="normal">x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mrow><mml:mi>Co</mml:mi></mml:mrow><mml:mrow><mml:mi mathvariant="normal">x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mrow><mml:mi>As</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>Iron-Based Superconductors. Physical Review Letters, 2014, 112, 127001.	7.8	15
75	Electronic and phononic properties of a two-dimensional electron gas coupled to dipolar phonons via small-momentum-transfer scattering. Physical Review B, 2019, 100, .	3.2	15
76	Enhanced low-energy magnetic excitations via suppression of the itinerancy in Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.98</mml:mn><mml:mo>â^’</mml:mo><mml:mi>z</mml:mi></mml:mrow></mml:msub></mml:math>Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>z</mml:mi></mml:msub></mml:math>Te<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	14
77	Physic Fractionalized topological insulators from frustrated spin models in three dimensions. Physical Review B, 2012, 85, .	3.2	13
78	Spectral Evidence for Emergent Order in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Ba</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn> Physical Review Letters, 2018, 121, 127001.	7.8	11
79	Nodal rings. Nature Physics, 2012, 8, 364-365.	16.7	10
80	Phonons in Hubbard ladders studied within the framework of the one-loop renormalization group. Physical Review B, 2005, 71, .	3.2	9
81	Resolving unoccupied electronic states with laser ARPES in bismuth-based cuprate superconductors. Physical Review B, 2015, 91, .	3.2	9
82	Hunting down unconventional superconductors. Science, 2017, 357, 32-33.	12.6	9
83	Flux Period, Spin Gap, and Pairing in the One-Dimensionaltâ^Jâ^Jâ€²Model. Physical Review Letters, 2004, 93, 046401.	7.8	8
84	Unconventional spectral signature of Tc in a pure d-wave superconductor. Nature, 2022, 601, 562-567.	27.8	8
85	A holographic theory for the phase transitions between fermionic symmetry-protected topological states. Nuclear Physics B, 2019, 949, 114799.	2.5	6
86	Non-abelian bosonization in two and three spatial dimensions and applications. Nuclear Physics B, 2021, 972, 115565.	2.5	6
87	Particleâ€“hole asymmetric superconducting coherence peaks in overdoped cuprates. Nature Physics, 2022, 18, 551-557.	16.7	5
88	Quantum torus chain. Physical Review B, 2012, 86, .	3.2	4
89	Compass impurity model of Tb substitution in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sr</mml:mi><mml:mn> Physical Review B, 2016, 94, .	3.2	4
90	The â€œnon-regularizabilityâ€•of gapless free fermion Hamiltonian protected by on-site symmetries. Nuclear Physics B, 2020, 954, 115005.	2.5	4

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91	Staggered currents in the vortex core of cuprate superconductors. Physical Review B, 2001, 64, .	3.2	3
92	Competition between Superconductivity and Charge-density Wave Order in Na0.3CoO2â‹…1.3H2O. Journal of Superconductivity and Novel Magnetism, 2009, 22, 295-298.	1.8	3
93	Inhomogeneity in Doped Mott Insulator. Journal of Low Temperature Physics, 2003, 131, 181-192.	1.4	2
94	Classification of topological trivial matter with non-trivial defects. Science Bulletin, 2019, 64, 575-579.	9.0	2
95	GAUGE FLUCTUATIONS IN A RVB THEORY OF D-WAVE SUPERCONDUCTING CUPRATES. International Journal of Modern Physics B, 2001, 15, 1338-1346.	2.0	1
96	Duality relation for frustrated spin models. Physical Review E, 2003, 67, 026111.	2.1	1
97	THE CHERNâ€“SIMONS INVARIANT IN THE BERRY PHASE OF A TWO BY TWO HAMILTONIAN. International Journal of Modern Physics B, 2002, 16, 1907-1914.	2.0	0
98	A reflection on the contrast between the Cooper pairing in iron-based and conventional superconductors. Frontiers of Physics, 2011, 6, 350-356.	5.0	0
99	GAUGE FLUCTUATIONS IN A RVB THEORY OF D-WAVE SUPERCONDUCTING CUPRATES. , 2000, , .		0
100	THE CHERN-SIMONS INVARIANT IN THE BERRY PHASE OF A TWO BY TWO HAMILTONIAN. , 2002, , .		0