

# Wei Ku

## List of Publications by Year in descending order

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67  
papers

3,073  
citations

172457

29  
h-index

155660

55  
g-index

69  
all docs

69  
docs citations

69  
times ranked

4024  
citing authors

#	ARTICLE	IF	CITATIONS
1	Proposal to improve Ni-based superconductors via enhanced charge transfer. Physical Review B, 2022, 105, .	3.2	4
2	Strongly correlated doped hole carriers in the superconducting nickelates: Their location, local many-body state, and low-energy effective Hamiltonian. Physical Review B, 2021, 103, .	3.2	18
3	Geometric frustration produces long-sought Bose metal phase of quantum matter. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	5
4	Fragility of the Kondo insulating gap against disorder: Relevance to recent puzzles in topological Kondo insulators. Physical Review Research, 2020, 2, .	3.6	10
5	Hunting down magnetic monopoles in two-dimensional topological insulators and superconductors. Physical Review B, 2019, 100, .	3.2	4
6	Entropic elasticity and negative thermal expansion in a simple cubic crystal. Science Advances, 2019, 5, eaay2748.	10.3	28
7	Doping dependence of the magnitude of fluctuating spin moments in the normal state of the pnictide superconductor $\text{Sr}(\text{Fe}_{1-x}\text{Co})_2\text{As}_2$ inferred from photoemission spectroscopy. Physical Review B, 2019, 99, .	3.2	0
8	Non-Fermi-liquid scattering against an emergent Bose liquid: Manifestations in the kink and other exotic quasiparticle behavior in the normal-state cuprate superconductors. Physical Review B, 2019, 99, .	3.2	8
9	Presence of electron and hole pockets and partial gap opening in the correlated semimetal $\text{Ca}_{3-x}\text{Ru}_2\text{O}_{10}$ . Physical Review B, 2019, 99, .	3.2	14
10	Quasiparticle interference and nonsymmorphic effect on a floating band surface state of $\text{ZrSiSe}$ . Nature Communications, 2018, 9, 4153.	12.8	48
11	Pressure-induced melting of magnetic order and emergence of a new quantum state in $\text{RuCl}_3$ . Physical Review B, 2018, 97, .	3.2	43
12	Electron and hole contributions to normal-state transport in the superconducting system $\text{Sn}_{1-x}\text{O}_x$ . Physical Review B, 2018, 98, .	3.2	13
13	Unraveling local spin polarization of Zhang-Rice singlet in lightly hole-doped cuprates using high-energy optical conductivity. Physical Review B, 2017, 95, .	3.2	15
14	Non-necessity of band inversion process in two-dimensional topological insulators for bulk gapless states and topological phase transitions. Physical Review B, 2017, 96, .	3.2	5
15	Indium Substitution Effect on the Topological Crystalline Insulator Family $(\text{Pb}_{1-x}\text{Sn}_x)\text{In}_2\text{Te}_3$ : Topological and Superconducting Properties. Crystals, 2017, 7, 55.	2.2	19
16	Nonrigid band shift and nonmonotonic electronic structure changes upon doping in the normal state of the pnictide high-temperature superconductor $\text{Sr}(\text{Fe}_{1-x}\text{Co})_2\text{As}_2$ .		

#	ARTICLE	IF	CITATIONS
19	What is the Valence of Mn in $\text{GaMnN}$ ? Physical Review Letters, 2015, 115, 197203.	7.8	14
20	Surface-state-dominated transport in crystals of the topological crystalline insulator In-doped $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$ . Physical Review B, 2015, 91, .	3.2	18
21	Electronic Structure Reconstruction across the Antiferromagnetic Transition in $\text{TaFe}_{1.23}\text{Te}_3$ Spin Ladder. Chinese Physics Letters, 2015, 32, 027401.	3.3	5
22	Weak phase stiffness and nature of the quantum critical point in underdoped cuprates. Physical Review B, 2015, 92, .	3.2	7
23	First-Principles Studies in Fe-Based Superconductors. Springer Series in Materials Science, 2015, , 223-253.	0.6	0
24	Doping effects of Se vacancies in monolayer FeSe. Physical Review B, 2014, 89, .	3.2	36
25	Bulk Signatures of Pressure-Induced Band Inversion and Topological Phase Transitions in $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$ . Physical Review Letters, 2014, 113, 096401.	7.8	27
26	First-principles Wannier function analysis of the electronic structure of PdTe: weaker magnetism and superconductivity. Journal of Physics Condensed Matter, 2013, 25, 405601.	1.8	7
27	Signatures of a Pressure-Induced Topological Quantum Phase Transition in BiTeI. Physical Review Letters, 2013, 111, 155701.	7.8	142
28	Magnetic states of the two-leg-ladder alkali metal iron selenides $\text{AFe}_2\text{Se}_2$ . Physical Review Letters, 2013, 111, 157401.	3.2	58
29	Spin-split conduction band in $\text{EuB}_6$ and tuning of half-metallicity with external stimuli. Physical Review B, 2013, 87, .	3.2	9
30	First-Principles Method of Propagation of Tightly Bound Excitons: Verifying the Exciton Band Structure of LiF with Inelastic x-Ray Scattering. Physical Review Letters, 2013, 111, 157401.	7.8	8
31	Effects of Disordered Ru Substitution in $\text{BaFe}_2\text{As}_2$ : Possible Realization of Superdiffusion in Real Materials. Physical Review Letters, 2013, 110, 037001.	7.8	23
32	Magnetic softness in iron-based superconductors. Superconductor Science and Technology, 2012, 25, 084007.	3.5	2
33	Do Transition-Metal Substitutions Dope Carriers in Iron-Based Superconductors?. Physical Review Letters, 2012, 108, 207003.	7.8	104
34	Impact of the two Fe unit cell on the electronic structure measured by ARPES in iron pnictides. Physical Review B, 2012, 86, .	3.2	75
35	Intrinsic electrons, local moments, and magnetic correlations in the pnictide superconductors $\text{CeFeAsO}_{1-x}\text{F}_x$ . Physical Review Letters, 2012, 108, 037001.		

#	ARTICLE	IF	CITATIONS
37	Insulating magnetism in vacancy-ordered $K0.8Fe1.6Se2$ . Physical Review B, 2012, 86, .	3.2	18
38	Thermal evolution of the full three-dimensional magnetic excitations in the multiferroic $BiFeO_3$ . Physical Review B, 2012, 86, .	3.2	20
39	Temperature-Dependent Transformation of the Magnetic Excitation Spectrum on Approaching Superconductivity in $Fe_{1-y}Ni_xTe_{0.5}Se_{0.5}$ . Physical Review Letters, 2012, 109, 227002.	7.8	20
40	Nanospheres of a New Intermetallic $FeSn_5$ Phase: Synthesis, Magnetic Properties and Anode Performance in Li-ion Batteries. Journal of the American Chemical Society, 2011, 133, 11213-11219.	13.7	88
41	Can Disorder Alone Destroy the $\epsilon^2$ Hole Pockets of $NaxCoO_2$ ? A Wannier Function Based First-Principles Method for Disordered Systems. Physical Review Letters, 2011, 106, 077005.	7.8	38
42	Kinetics-Driven Superconducting Gap in Underdoped Cuprate Superconductors Within the Strong-Coupling Limit. Physical Review X, 2011, 1, .	8.9	7
43	One-Fe versus Two-Fe Brillouin Zone of Fe-Based Superconductors: Creation of the Electron Pockets by Translational Symmetry Breaking. Physical Review Letters, 2011, 107, 257001.	7.8	53
44	Local-moment magnetism in superconducting $FeTe_{0.35}Se_{0.65}$ as seen via inelastic neutron scattering. Physical Review B, 2011, 84, .	3.2	21
45	Unfolding First-Principles Band Structures. Physical Review Letters, 2010, 104, 216401.	7.8	255
46	Unified Picture for Magnetic Correlations in Iron-Based Superconductors. Physical Review Letters, 2010, 105, 107004.	7.8	164
47	Dynamical linear response of TDDFT with LDA+U. Strongly hybridized Frenkel excitons in NiO. Physical Review B, 2010, 82, .	3.2	21
48	Charge ordering in half-doped manganites: Weak charge disproportion and leading mechanisms. Europhysics Letters, 2010, 89, 27008.	2.0	18
49	Tuning the in-plane electron behavior in high- $T_c$ cuprate superconductors via apical atoms: A first-principles Wannier-states analysis. Physical Review B, 2009, 79, .	3.2	20
50	Effect of covalent bonding on magnetism and the missing neutron intensity in copper oxide compounds. Nature Physics, 2009, 5, 867-872.	16.7	112
51	of correlated spin excitations in $GdCaCoO_3$ . Physical Review B, 2009, 79, .	3.2	84
52	Ferro-Orbital Order and Strong Magnetic Anisotropy in the Parent Compounds of Iron-Pnictide Superconductors. Physical Review Letters, 2009, 103, 267001.	7.8	358
53	Dynamical reconstruction of the exciton in LiF with inelastic x-ray scattering. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 12159-12163.	7.1	45
54	Phonons in superconducting $CaC_6$ via inelastic x-ray scattering. Physical Review B, 2007, 76, .	3.2	17

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55	Nonresonant Inelastic X-Ray Scattering and Energy-Resolved Wannier Function Investigation of $d$ -Excitations in NiO and CoO. Physical Review Letters, 2007, 99, 026401.	7.8	84
56	Orbital Ordering in LaMnO <sub>3</sub> : Electron-Electron versus Electron-Lattice Interactions. Physical Review Letters, 2006, 96, 116405.	7.8	94
57	Coexistence of Gapless Excitations and Commensurate Charge-Density Wave in the 2H Transition Metal Dichalcogenides. Physical Review Letters, 2006, 96, 026406.	7.8	36
58	Exchange Coupling in Eu Monochalcogenides from First Principles. Journal of the Physical Society of Japan, 2005, 74, 1408-1411.	1.6	68
59	Electron-hole and plasmon excitations in 3d transition metals: Ab initio calculations and inelastic x-ray scattering measurements. Physical Review B, 2005, 72, .	3.2	45
60	Large crystal local-field effects in the dynamical structure factor of rutile TiO <sub>2</sub> . Physical Review B, 2004, 70, .	3.2	17
61	Ku and Eguiluz Reply:. Physical Review Letters, 2004, 93, .	7.8	17
62	Effects of the crystal structure in the dynamical electron density-response of hcp transition metals. Computational Materials Science, 2004, 30, 104-109.	3.0	5
63	Microscopic analysis of insulating magnetism of La <sub>4</sub> Ba <sub>2</sub> Cu <sub>2</sub> O <sub>10</sub> and Nd <sub>4</sub> Ba <sub>2</sub> Cu <sub>2</sub> O <sub>10</sub> . Journal of Solid State Chemistry, 2003, 171, 329-333.	2.9	3
64	Ab Initio Investigation of Collective Charge Excitations in MgB <sub>2</sub> . Physical Review Letters, 2002, 88, 057001.	7.8	50
65	Band-Gap Problem in Semiconductors Revisited: Effects of Core States and Many-Body Self-Consistency. Physical Review Letters, 2002, 89, 126401.	7.8	166
66	Insulating Ferromagnetism in La <sub>4</sub> Ba <sub>2</sub> Cu <sub>2</sub> O <sub>10</sub> : An Ab Initio Wannier Function Analysis. Physical Review Letters, 2002, 89, 167204.	7.8	137
67	Plasmon Lifetime in K: A Case Study of Correlated Electrons in Solids Amenable to Ab Initio Theory. Physical Review Letters, 1999, 82, 2350-2353.	7.8	48