Jaejun Yu

List of Publications by Year in descending order

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119	8,017	57758	46799
papers	citations	44 h-index	89 g-index

119	119	119	7497
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	<math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><msub><mi>J</mi><mi>eff</mi></msub><mo>=</mo><mn>1</mn></math> State Induced by Relativistic Spin-Orbit Coupling in <math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><msub><mi>Sr</mi><mn>2</mn></msub><msub><mi>IrO</mi> Physical Review Letters, 2008, 101, 076402.	7.8	1,332
2	Electronically driven instabilities and superconductivity in the layeredLa2â^'xBaxCuO4perovskites. Physical Review Letters, 1987, 58, 1035-1037.	7.8	544
3	Magnetic ordering at the edges of graphitic fragments: Magnetic tail interactions between the edge-localized states. Physical Review B, 2005, 72, .	3.2	487
4	Electronic structure and properties of YBa2Cu3O7-Î´, a low dimensional, low density of states superconductor. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 122, 198-202.	2.1	485
5	Electronic structure and properties of Bi2Sr2CaCu2O8, the third high-Tc superconductor. Physica C: Superconductivity and Its Applications, 1988, 152, 251-258.	1.2	343
6	Bonds, bands, charge transfer excitations and superconductivity of YBa2Cu3O7-Î´. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 122, 203-208.	2.1	340
7	Physical properties of transparent perovskite oxides (Ba,La)SnO<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>with high electrical mobility at room temperature. Physical Review B, 2012, 86, .	3.2	264
8	Synthesis, Characterization, and Self-Assembly of Pencil-Shaped CoO Nanorods. Journal of the American Chemical Society, 2006, 128, 9753-9760.	13.7	201
9	Orbital-Angular-Momentum Based Origin of Rashba-Type Surface Band Splitting. Physical Review Letters, 2011, 107, 156803.	7.8	162
10	Effective Control of the Charge and Magnetic States of Transition-Metal Atoms on Single-Layer Boron Nitride. Physical Review Letters, 2012, 108, 206802.	7.8	135
11	Determination of electronic band structures ofCaMnO3andLaMnO3using optical-conductivity analyses. Physical Review B, 1997, 55, 15489-15493.	3.2	134
12	Electronic structure of Nd-Ce-Cu-O, a Fermi liquid superconductor. Physica C: Superconductivity and Its Applications, 1989, 157, 571-574.	1.2	126
13	O(N)LDA+Uelectronic structure calculation method based on the nonorthogonal pseudoatomic orbital basis. Physical Review B, 2006, 73, .	3.2	118
14	Interaction and ordering of vacancy defects in NiO. Physical Review B, 2008, 77, .	3.2	118
15	Anisotropic exchange interactions of spin-orbit-integrated states in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Sr</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub> Physical Review B, 2009, 80, .	3.2	117
16	Electronic structure and properties of the high-Tc superconductors: Tl2Ba2CaCu2O8 and Tl2Ba2Ca2Cu3O10. Physica C: Superconductivity and Its Applications, 1988, 152, 273-282.	1.2	116
17	All-perovskite transparent high mobility field effect using epitaxial BaSnO3 and LaInO3. APL Materials, 2015, 3, .	5.1	107
18	Dominant role of the 2D Van Hove singularity on the Fermi surface and generalized susceptibility of the quasi-2D superconductor La2â^'xMxCuO4 (M = Sr, Ba, â€¦). Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 120, 489-493.	2.1	104

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19	Formation of oxygen vacancies and charge carriers induced in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type interface of a LaAlO<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>overlayer on SrTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	99
20	Midgap states ofLa1â^'xCaxMnO3:â€ƒDoping-dependent optical-conductivity studies. Physical Review B, 1998, 57, R11043-R11046.	3.2	98
21	Passivated co-doping approach to bandgap narrowing of titanium dioxide with enhanced photocatalytic activity. Applied Catalysis B: Environmental, 2017, 200, 1-9.	20.2	90
22	Topological Quantum Phase Transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>5</mml:mn><mml:mi>d</mml:mi></mml:math>Transition Metal Oxide<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Na</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>IrO</mml:mi><mml:m Physical Review Letters, 2012, 108, 106401.	7.8	87
23	Local density theory of X-ray and photoemission from YBa2Cu3O7â^'Î´: The high Tc superconductor. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 124, 469-473.	2.1	81
24	Electron and Orbital Correlations inCa2â^'xSrxRuO4Probed by Optical Spectroscopy. Physical Review Letters, 2002, 89, 257402.	7.8	77
25	Electronic structures of hexagonalRMnO3(R=Gd, Tb, Dy, and Ho) thin films: Optical spectroscopy and first-principles calculations. Physical Review B, 2008, 77, .	3.2	75
26	Magnetic ordering and exchange interactions in multiferroicGaFeO3. Physical Review B, 2007, 75, .	3.2	74
27	Spin and orbital angular momentum structure of Cu(111) and Au(111) surface states. Physical Review B, 2012, 85, .	3.2	67
28	Electronic structure and properties of superconductingLiTi2O4. Physical Review B, 1988, 38, 11352-11357.	3.2	64
29	Comparison of localized basis and plane-wave basis for density-functional calculations of organic molecules on metals. Physical Review B, 2007, 75, .	3.2	64
30	Electronic structure and properties of YBa2Cu4O8. Physica C: Superconductivity and Its Applications, 1991, 172, 467-476.	1.2	63
31	Origin of electric-field gradients in high-temperature superconductors:YBa2Cu3O7. Physical Review B, 1991, 43, 532-541.	3.2	61
32	Dopant-site-dependent scattering by dislocations in epitaxial films of perovskite semiconductor BaSnO3. APL Materials, 2014, 2, .	5.1	61
33	Calculated local density X-ray and photoemission spectra for superconducting La2â^'xMxCuO4: Localization of Cu-3d. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 124, 463-468.	2.1	60
34	Electronic structure, magnetic interactions, and the role of ligands inMnn(n=4,12)single-molecule magnets. Physical Review B, 2004, 70, .	3.2	58
35	Calculated photoemission and x-ray emission spectra ofBi2Sr2CaCu2O8. Physical Review B, 1988, 38, 5098-5101.	3.2	54
36	Hole states inCuO2planes and Cu-O chains ofYBa2Cu3O7andYBa2Cu4O8probed by soft-x-ray absorption spectroscopy. Physical Review B, 1992, 45, 2581-2584.	3.2	54

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37	Ab initio study of pentacene on Au(001) surface. Surface Science, 2005, 589, 8-18.	1.9	54
38	Missingxy-Band Fermi Surface in4dTransition-Metal OxideSr2RhO4: Effect of the Octahedra Rotation on the Electronic Structure. Physical Review Letters, 2006, 97, 106401.	7.8	50
39	Electronic structure and properties of quasi-two-dimensional layered superconducting perovskites:La2â^'xMxCuO4(M=Ba,Sr,Ââ€¦). Physical Review B, 1987, 36, 7111-7114.	3.2	49
40	Pseudogap formation in 4 d transition metal oxide BaRuO 3. Europhysics Letters, 2001, 55, 280-286.	2.0	48
41	Indications of strong neutral impurity scattering in Ba(Sn,Sb)O<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>single crystals. Physical Review B, 2013, 88, .	3.2	48
42	Normal state transport properties of YBa2Cu3O7 and YBa2Cu3O8 superconductors; predictions and comparison with experiments. Physica C: Superconductivity and Its Applications, 1991, 176, 159-169.	1.2	45
43	Heat-Induced Transformation of Nanodiamond into a Tube-Shaped Fullerene: A Molecular Dynamics Simulation. Physical Review Letters, 2003, 91, 265701.	7.8	45
44	Effect of Orbital Rotation and Mixing on the Optical Properties of OrthorhombicRMnO3(R=La, Pr, Nd,) Tj ETQq0 0 0 rgBT /Overlock 10 T	7.8	45
45	Ferromagnetism at the edges of the stacked graphitic fragments: an ab initio study. Chemical Physics Letters, 2004, 398, 207-211.	2.6	36
46	Scaling Behavior of Spectral Weight Changes in Perovskite ManganitesLa0.7â^'yPryCa0.3MnO3. Physical Review Letters, 1998, 81, 4983-4986.	7.8	35
47	Strain-induced topological insulator phase and effective magnetic interactions in Li2IrO3. Physical Review B, 2013, 87, .	3.2	35
48	Enhanced upper critical fields in a new quasi-one-dimensional superconductor Nb₂Pd_xSe₅. New Journal of Physics, 2013, 15, 123031.	2.9	35
49	Anomalous spin susceptibility and magnetic polaron formation in the double-exchange systems. Physical Review B, 2000, 61, 9501-9505.	3.2	34
50	Effect of Coulomb Interactions on the Electronic and Magnetic Properties of Two-Dimensional CrSiTe3 and CrGeTe3 Materials. Journal of Electronic Materials, 2019, 48, 1441-1445.	2.2	34
51	Transport properties of high-Tcsuperconductors: Fermi-liquid local-density electronic-structure predictions. Physical Review B, 1990, 42, 6238-6243.	3.2	33
52	Tunable magnetic topological insulating phases in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">CrI</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2018, 98, .	3.2	33
53	Energetics of large carbon clusters:â€,â€Crossover from fullerenes to nanotubes. Physical Review B, 2002, 65, .	3.2	32
54	Formation of carbon nanotube semiconductor-metal intramolecular junctions by self-assembly of vacancy defects. Physical Review B, 2007, 76, .	3.2	32

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55	Optical investigations of the charge gap in orbital-orderedLa1/2Sr3/2MnO4. Physical Review B, 2000, 61, 6902-6906.	3.2	30
56	Band gap sensitivity of bromine adsorption at carbon nanotubes. Chemical Physics Letters, 2005, 403, 135-139.	2.6	30
57	Coulomb correlated band structure and Fermi surfaces of high Tc superconductors. Journal of Physics and Chemistry of Solids, 1991, 52, 1351-1362.	4.0	29
58	Calculated photoemission, inverse photoemission, and x-ray emission spectra of high-Tcsuperconductors:Tl2Ba2CaCu2O8andTl2Ba2Ca2Cu3O10. Physical Review B, 1989, 39, 2894-2897.	3.2	28
59	High-k perovskite gate oxide BaHfO3. APL Materials, 2017, 5, .	5.1	28
60	Role of oxygen vacancy in the spin-state change and magnetic ordering in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrCoO</mml:mi><mml:mrow><mml:mn>3</mml:mn><m Physical Review B, 2018, 98, .	3.2	28
61	Spin triplet excitations for a valence bond solid on the kagome lattice. Physical Review B, 2008, 77, .	3.2	23
62	Large in-plane deformation of RuO₆octahedron and ferromagnetism of bulk SrRuO₃. Journal of Physics Condensed Matter, 2013, 25, 465601.	1.8	23
63	Catalytic decomposition of acetylene on Fe(001): A first-principles study. Physical Review B, 2002, 66, .	3.2	22
64	A Roomâ€Temperature Ferroelectric Ferromagnet in a 1D Tetrahedral Chain Network. Advanced Materials, 2019, 31, e1808104.	21.0	22
65	Pressure-induced phonon softening and electronic topological transition inHgBa2CuO4. Physical Review B, 1996, 54, 1313-1319.	3.2	21
66	Double-exchange model with background superexchange interactions: Phase diagrams ofLa1â^'xAxMnO3manganites. Physical Review B, 1998, 58, 11123-11126.	3.2	21
67	First-principles study of ultrathin (2Ã—2) Gd nanowires encapsulated in carbon nanotubes. Journal of Chemical Physics, 2010, 132, 054701.	3.0	19
68	Orientations of oxygen hole states and ionicity of bismuth atoms inBi2Sr2CaCu2O8. Physical Review B, 1994, 50, 6370-6374.	3.2	17
69	Raman modes of the apical oxygen in mercury-based superconductors. Physical Review B, 1995, 52, 15078-15081.	3.2	17
70	Origin of reduced polarizations in short-period BaTiO3/SrTiO3 ferroelectric superlattices. Journal of Applied Physics, 2009, 105, .	2.5	17
71	Polarization screening and induced carrier density at the interface of LaAlO3 overlayer on SrTiO3 (001). Journal of Applied Physics, 2010, 108, .	2.5	17
72	Chern insulator with a nearly flat band in the metal-organic-framework-based Kagome lattice. Scientific Reports, 2019, 9, 13807.	3.3	17

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73	Two-photon momentum density inLa2â^'xSrxCuO4andNd2â^'xCexCuO4. Physical Review B, 1992, 46, 390-397.	3.2	16
74	Micro-Raman study of the role of pressure in mercury-based superconductors. Physical Review B, 1995, 51, 644-647.	3.2	16
75	First-principles effective Hamiltonian for ferroelectric polarization inBaTiO3/SrTiO3 superlattices. Journal of Applied Physics, 2008, 103, 124106.	2.5	15
76	Possible origins of defect-induced magnetic ordering in carbon-irradiated graphite. Physical Review B, 2009, 79, .	3.2	15
77	Impact of vacancy clusters on characteristic resistance change of nonstoichiometric strontium titanate nano-film. Applied Physics Letters, 2014, 104, .	3.3	15
78	Suppression of ferromagnetic ordering in doped manganites: Effects of the superexchange interaction. Physical Review B, 2000, 61, 428-431.	3.2	14
79	Structure and magnetism of small Gd and Fe nanoclusters: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si6.gif" display="inline" overflow="scroll"><mml:mstyle mathvariant="normal"><mml:mi>LDA</mml:mi></mml:mstyle><mml:mo>+</mml:mo><mml:mi>U</mml:mi></mml:math> calculations. Solid State Communications, 2009, 149, 2058-2060.	1.9	14
80	Tunable charge donation and spin polarization of metal adsorbates on graphene using an applied electric field. Physical Review B, 2010, 82, .	3.2	13
81	Mapping Atomic Contact between Pentacene and a Au Surface using Scanning Tunneling Spectroscopy. Nano Letters, 2010, 10, 996-999.	9.1	13
82	Half-metallic ferromagnetism and metalâ€“insulator transition in Sn-doped SrRuO3 perovskite oxides. Journal of Magnetism and Magnetic Materials, 2018, 460, 54-60.	2.3	13
83	Theoretical two-particle momentum density in YBa2Cu3O7â^'Î´. Journal of Physics and Chemistry of Solids, 1991, 52, 1503-1512.	4.0	12
84	Competition between structural distortion and magnetic moment formation in fullerene C20. Journal of Chemical Physics, 2009, 130, 184107.	3.0	12
85	Magnetic interactions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PdCrO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> and their effects on its magnetic structure. Physical Review B, 2018, 98, .	3.2	12
86	Electronic structure and properties of vacancy-ordered YBa2Cu3O6.5. Physica C: Superconductivity and Its Applications, 1993, 214, 335-344.	1.2	11
87	Dimensional crossover driven by magnetic ordering in optical conductivity ofPr1/2Sr1/2MnO3. Physical Review B, 2000, 61, 14656-14659.	3.2	11
88	Enhanced Charge Gap in the Bilayer ManganiteLa2â^'2xSr1+2xMn2O7nearx=0.4. Physical Review Letters, 2007, 98, 187201.	7.8	11
89	Modulation of electron carrier density at the n-type LaAlO3/SrTiO3 interface by water adsorption. Journal of Physics Condensed Matter, 2013, 25, 265004.	1.8	11
90	Doped valence-bond solid and superconductivity on the Shastry-Sutherland lattice. Physical Review B, 2008, 77, .	3.2	10

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91	Collinear and noncollinear spin ground state of wurtzite CoO. Physical Review B, 2013, 87, .	3.2	10
92	Charge and magnetic states of rutile TiO2doped with Cr ions. Journal of Physics Condensed Matter, 2014, 26, 146003.	1.8	10
93	Magnetic states and intervalence charge transfer of Ti and Fe defects in Î±-Al2O3: The origin of the blue in sapphire. Acta Materialia, 2018, 143, 248-256.	7.9	10
94	Band gap narrowing of TiO2 nanoparticles: A passivated Co-doping approach for enhanced photocatalytic activity. Journal of Physics and Chemistry of Solids, 2022, 162, 110503.	4.0	9
95	Electronic band structure of high Tc Cu-oxide superconductors: Comparison of predictions with experiments. Journal of Electron Spectroscopy and Related Phenomena, 1994, 66, 281-301.	1.7	7
96	Photonic crystal alloys: a new twist in controlling photonic band structure properties. Optics Express, 2008, 16, 6579.	3.4	7
97	Ab Initio Study of Elastic Properties of High-Pressure Polymorphs of CO₂ Phases II and V. Journal of Physical Chemistry C, 2016, 120, 23152-23164.	3.1	7
98	Coulomb correlated electronic band structure of cuprate superconductors. Physica C: Superconductivity and Its Applications, 1991, 173, 274-284.	1.2	6
99	Induced vortex dynamics in parallel Josephson junction arrays. Physical Review B, 1997, 55, 1231-1235.	3.2	6
100	Interface electronic structure, two-dimensional metallicity, and possible interface superconductivity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Cu</mml:mi><mml:mi mathvariant="normal">Cl</mml:mi><mml:mo>â^•</mml:mo><mml:mi mathvariant="normal">Si</mml:mi></mml:mrow></mml:math>superlattices. Physical Review B, 2007, 76, .	3.2	6
101	Graphene analogue in (111)-oriented BaBiO3 bilayer heterostructures for topological electronics. Scientific Reports, 2018, 8, 555.	3.3	6
102	Inevitable high density of oxygen vacancies at the surface of polarâ€“nonpolar perovskite heterostructures LaAlO3/SrTiO3. Journal of Applied Physics, 2020, 127, .	2.5	6
103	Chirality-induced spin texture switching in twisted bilayer graphene. Physical Review B, 2021, 104, .	3.2	5
104	Effect of on-site Coulomb interactions on the electronic structure and magnetic property of Gd2 cluster. Chemical Physics Letters, 2010, 492, 89-92.	2.6	4
105	Superstructures of Se adsorbates on Au(111): Scanning tunneling microscopy and spectroscopy study. Surface Science, 2019, 685, 19-23.	1.9	4
106	Dynamical properties of high-temperature-superconductor granular bridge junctions: Inhomogeneous Josephson-junction-array model. Physical Review B, 1996, 53, 3578-3584.	3.2	3
107	Long-range hopping correlation and colossal magnetoresistance in doped manganites. Journal of Physics Condensed Matter, 2000, 12, 5453-5462.	1.8	3
108	Multiferroic Materials: A Room-Temperature Ferroelectric Ferromagnet in a 1D Tetrahedral Chain Network (Adv. Mater. 24/2019). Advanced Materials, 2019, 31, 1970173.	21.0	3

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109	Band gap and mobility of epitaxial perovskite BaSn1â^'xHfxO3 thin films. Physical Review Materials, 2018, 2, .	2.4	3
110	Electronic Structure and Insulating Nature of the (LaTiO3)2/(LaAlO3)2 Superlattice. Journal of the Korean Physical Society, 2008, 53, 1074-1078.	0.7	3
111	Structure and disorder in MgSiO₃ glasses above megabar pressures via nuclear magnetic resonance: DFT calculations. Journal of the American Ceramic Society, 2022, 105, 5151-5166.	3.8	3
112	Electronic structure, charge transfer excitations, and highâ€temperature superconducting oxides (invited). Journal of Applied Physics, 1988, 63, 4220-4225.	2.5	2
113	Optical properties of BaRuO3: observation of pseudogap formation. Current Applied Physics, 2001, 1, 163-167.	2.4	2
114	A spin-dependent local moment approach to the Anderson impurity model. Journal of Physics Condensed Matter, 2007, 19, 456203.	1.8	2
115	Two-dimensional electron gas generated by La-doping at SrTiO3(001) surface: A first-principles study. AIP Advances, 2013, 3, 062116.	1.3	2
116	Identification of F impurities in F-doped ZnO by synchrotron X-ray absorption near edge structures. Journal of Applied Physics, 2018, 123, 161528.	2.5	1
117	All-Electron Local Density Theory of Electronic Structure and Superconductivity in YBa2Cu3O7and YBa2Cu3O6. Japanese Journal of Applied Physics, 1987, 26, 1153.	1.5	1
118	Current-voltage characteristics and Josephson ac effects of granular HTSC Y1Ba2Cu3Oy bridges. Solid State Communications, 1995, 94, 45-48.	1.9	0
119	Current Status of Women Physicists in Korea. AIP Conference Proceedings, 2005, , .	0.4	0