

Alexei Fedorov

List of Publications by Year in descending order

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125
papers

16,487
citations

26630

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16183

124
g-index

128
all docs

128
docs citations

128
times ranked

14732
citing authors

#	ARTICLE	IF	CITATIONS
1	Substrate-induced bandgap opening in epitaxial graphene. Nature Materials, 2007, 6, 770-775.	27.5	2,115
2	A tunable topological insulator in the spin helical Dirac transport regime. Nature, 2009, 460, 1101-1105.	27.8	1,737
3	Observation of Time-Reversal Protected Single-Dirac-Cone Topological Insulator States in Bi_2Te_3 . Physical Review Letters, 2009, 103, 146401.	7.8	881
4	Chiral magnetic effect in ZrTe_5 . Nature Physics, 2016, 12, 550-554.	16.7	793
5	Experimental observation of topological Fermi arcs in type-II Weyl semimetal MoTe_2 . Nature Physics, 2016, 12, 1105-1110.	16.7	663
6	A topological insulator surface under strong Coulomb, magnetic and disorder perturbations. Nature Physics, 2011, 7, 32-37.	16.7	527
7	Evidence for Quantum Critical Behavior in the Optimally Doped Cuprate $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$. Science, 1999, 285, 2110-2113.	12.6	512
8	First direct observation of Dirac fermions in $\hat{\text{A}}$ graphite. Nature Physics, 2006, 2, 595-599.	16.7	466
9	Synthesis and characterization of atomically thin graphite films on a silicon carbide substrate. Journal of Physics and Chemistry of Solids, 2006, 67, 2172-2177.	4.0	423
10	Observation of topological order in a superconducting doped topological insulator. Nature Physics, 2010, 6, 855-859.	16.7	412
11	Doping and Temperature Dependence of the Mass Enhancement Observed in the Cuprate $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$. Physical Review Letters, 2001, 87, 177007.	7.8	331
12	Many-Body Effects in Angle-Resolved Photoemission: Quasiparticle Energy and Lifetime of a $\text{Mo}(110)$ Surface State. Physical Review Letters, 1999, 83, 2085-2088.	7.8	307
13	Spatial and Energy Distribution of Topological Edge States in Single $\text{Bi}(111)$ Bilayer. Physical Review Letters, 2012, 109, 016801.	7.8	293
14	Metal to Insulator Transition in Epitaxial Graphene Induced by Molecular Doping. Physical Review Letters, 2008, 101, 086402.	7.8	245
15	Electronic Structure Basis for the Extraordinary Magnetoresistance in WTe_2 . Physical Review Letters, 2014, 113, 216601.	7.8	241
16	The Ground State of the Pseudogap in Cuprate Superconductors. Science, 2006, 314, 1914-1916.	12.6	221
17	Topological nature of the FeSe . Physical Review B, 2015, 92, .	7.8	221
18	Fermi Surface and Quasiparticle Dynamics of $\text{Na}_0.7\text{CoO}_2$ Investigated by Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2004, 92, 246402.	7.8	214

#	ARTICLE	IF	CITATIONS
19	K-Doping Dependence of the Fermi Surface of the Iron-Arsenic $\text{Ba}_1\text{Fe}_2\text{As}_4$ Using Angle-Resolved Photoemission Spectroscopy. <i>Physical Review Letters</i> , 2008, 101, 177005.	7.8	214
20	Many-body interactions in quasi-freestanding graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 11365-11369.	7.1	200
21	Electronic Structure of the Topological Insulator Bi_2Se_3 by Angle-Resolved Photoemission Spectroscopy: Evidence for a Nearly Full Surface Spin Polarization. <i>Physical Review Letters</i> , 2011, 106, 257004.	7.8	192
22	Gaps induced by inversion symmetry breaking and a second-generation Dirac cones in graphene/hexagonal boron nitride. <i>Nature Physics</i> , 2016, 12, 1111-1115.	16.7	179
23	Origin of the energy bandgap in epitaxial graphene. <i>Nature Materials</i> , 2008, 7, 259-260.	27.5	175
24	Weak Anti-localization and Quantum Oscillations of Surface States in Topological Insulator Bi_2Se_3 . <i>Scientific Reports</i> , 2012, 2, 726.	3.3	172
25	Temperature Dependent Scattering Rates at the Fermi Surface of Optimally Doped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$. <i>Physical Review Letters</i> , 2000, 85, 828-831.	7.8	171
26	Quasiparticle Spectra, Charge-Density Waves, Superconductivity, and Electron-Phonon Coupling in HfNbSe_2 . <i>Physical Review Letters</i> , 2004, 92, 086401.	7.8	163
27	Laser Based Angle-Resolved Photoemission, the Sudden Approximation, and Quasiparticle-Like Spectral Peaks in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$. <i>Physical Review Letters</i> , 2006, 96, 017005.	7.8	157
28	Fully gapped topological surface states in Bi_2Se_3 films induced by a d-wave high-temperature superconductor. <i>Nature Physics</i> , 2013, 9, 621-625.	16.7	149
29	Temperature Dependent Photoemission Studies of Optimally Doped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$. <i>Physical Review Letters</i> , 1999, 82, 2179-2182.	7.8	145
30	Mass-renormalized electronic excitations at $(\Gamma, 0)$ in the superconducting state of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$. <i>Physical Review B</i> , 2003, 68, .	3.2	145
31	Fermi Surface Evolution and Luttinger Theorem in Na_xCoO_2 : A Systematic Photoemission Study. <i>Physical Review Letters</i> , 2005, 95, 146401.	7.8	140
32	Measurement of an Exceptionally Weak Electron-Phonon Coupling on the Surface of the Topological Insulator Bi_2Se_3 by Angle-Resolved Photoemission Spectroscopy. <i>Physical Review Letters</i> , 2012, 108, 187001.	7.8	140
33	Unique Gap Structure and Symmetry of the Charge Density Wave in Single-Layer VSe_2 . <i>Physical Review Letters</i> , 2018, 121, 196402.	7.8	139
34	High-Energy Kink Observed in the Electron Dispersion of High-Temperature Cuprate Superconductors. <i>Physical Review Letters</i> , 2007, 98, 167003.	7.8	129
35	Momentum dependence of superconducting gap, strong-coupling dispersion kink, and tightly bound Cooper pairs in the high-Tc $(\text{Sr}, \text{Ba})_{1-x}(\text{K}, \text{Na})_x\text{Fe}_2\text{As}_2$ superconductors. <i>Physical Review B</i> , 2008, 78, .	3.2	127
36	Epitaxial growth of Bi_2Se_3 topological insulator thin films on Si (111). <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	126

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37	Observation of a universal donor-dependent vibrational mode in graphene. Nature Communications, 2014, 5, 3257.	12.8	114
38	Widespread spin polarization effects in photoemission from topological insulators. Physical Review B, 2011, 84, .	3.2	111
39	Quantized Electron Accumulation States in Indium Nitride Studied by Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2006, 97, 237601.	7.8	103
40	Revelation of Topological Surface States in Bi ₂ Se ₃ Thin Films by <i>In Situ</i> Al Passivation. ACS Nano, 2012, 6, 295-302.	14.6	102
41	Sn-doped Bi _{1.1} Sb _{0.9} Te ₂ S bulk crystal topological insulator with excellent properties. Nature Communications, 2016, 7, 11456.	12.8	94
42	Direct measurement of quantum phases in graphene via photoemission spectroscopy. Physical Review B, 2011, 84, .	3.2	91
43	Electronic structure of optimally doped pnictide Ba _{0.6} K _{0.4} Fe ₂ As ₂ : a comprehensive angle-resolved photoemission spectroscopy investigation. Journal of Physics Condensed Matter, 2011, 23, 135701.	1.8	88
44	Quasiparticle dynamics in reshaped helical Dirac cone of topological insulators. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2758-2762.	7.1	86
45	Charge-Density-Wave-Induced Modifications to the Quasiparticle Self-Energy in 2H-TaSe ₂ . Physical Review Letters, 2000, 85, 4759-4762.	7.8	85
46	Epitaxial growth of high mobility Bi ₂ Se ₃ thin films on CdS. Applied Physics Letters, 2011, 98, 242102.	3.3	85
47	Anisotropic Electron-Phonon Coupling and Dynamical Nesting on the Graphene Sheets in Superconducting CaC ₆ using Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2009, 102, 107007.	7.8	78
48	Magnetically doped semiconducting topological insulators. Journal of Applied Physics, 2012, 112, .	2.5	75
49	Low-Lying Quasiparticle States and Hidden Collective Charge Instabilities in Parent Cobaltate Superconductors. Physical Review Letters, 2006, 96, 216405.	7.8	71
50	Electronic Structure of Superconducting KC ₈ and Nonsuperconducting LiC ₆ Graphite Intercalation Compounds: Evidence for a Graphene-Sheet-Driven Superconducting State. Physical Review Letters, 1996, 77, 3415-3418.	7.8	68
51	Temperature Dependence of the Exchange Splitting of the Surface State on Gd(0001): Evidence against Spin-Mixing Behavior. Physical Review Letters, 1996, 77, 3415-3418.	7.8	67
52	Kohn anomaly and interplay of electron-electron and electron-phonon interactions in epitaxial graphene. Physical Review B, 2008, 78, .	3.2	65
53	A high-efficiency spin-resolved photoemission spectrometer combining time-of-flight spectroscopy with exchange-scattering polarimetry. Review of Scientific Instruments, 2010, 81, 053904.	1.3	63
54	Dimensional Effects on the Charge Density Waves in Ultrathin Films of TiSe ₂ . Nano Letters, 2016, 16, 6331-6336.	9.1	61

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55	Topological semimetal in a Bi-Bi ₂ Se ₃ infinitely adaptive superlattice phase. Physical Review B, 2012, 86, .	3.2	59
56	Charge-Carrier Screening in Single-Layer Graphene. Physical Review Letters, 2013, 110, 146802.	7.8	58
57	Quasiparticlelike Peaks, Kinks, and Electron-Phonon Coupling at the(Γ ,0)Regions in the CMR OxideLa ₂ \hat{a} ² xSr _{1+2x} Mn ₂ O ₇ . Physical Review Letters, 2006, 97, 056401.	7.8	56
58	Quasiparticle Liquid in the Highly OverdopedBi ₂ Sr ₂ CaCu ₂ O ₈ + \hat{I} . Physical Review Letters, 2002, 88, 167006.	7.8	54
59	A local metallic state in globally insulating La _{1.24} Sr _{1.76} Mn ₂ O ₇ well above the metal \hat{a} insulator transition. Nature Physics, 2007, 3, 248-252.	16.7	45
60	Spin-Orbit Interactions and the Nematicity Observed in the Fe-Based Superconductors. Physical Review Letters, 2015, 114, 167001.	7.8	42
61	Surface Shifts of4fElectron-Addition and Electron-Removal States in Gd(0001). Physical Review Letters, 1994, 73, 601-604.	7.8	41
62	Bilayer splitting and coherence effects in optimal and underdopedBi ₂ Sr ₂ CaCu ₂ O ₈ + \hat{I} . Physical Review B, 2004, 69, Pnictide superconductors, local moments, and magnetic correlations in the pnictide superconductors	3.2	41
63	CeFeAsO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>\hat{~}</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>F<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow		

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73	Comparison of Sn-doped and nonstoichiometric vertical-Bridgman-grown crystals of the topological insulator Bi ₂ Te ₂ Se. Journal of Applied Physics, 2014, 115, 143708.	2.5	33
74	Robust Gapless Surface State and Rashba-Splitting Bands upon Surface Deposition of Magnetic Cr on Bi ₂ Se ₃ . Nano Letters, 2015, 15, 2031-2036.	9.1	33
75	Surface shift of the unoccupied 4fstate in La metal. Physical Review Letters, 1993, 70, 1719-1722.	7.8	30
76	Temperature-dependent exchange splitting of unoccupied electronic states in Gd(0001). Physical Review B, 1994, 50, 2739-2742.	3.2	30
77	Determination of the Hole Lifetime from Photoemission: Ti3dStates inTiTe2. Physical Review Letters, 2007, 98, 217604.	7.8	28
78	Orbital Dependence of the Fermi Liquid State inSr2RuO4. Physical Review Letters, 2005, 94, 107003.	7.8	25
79	Electronic properties of iron arsenic high temperature superconductors revealed by angle resolved photoemission spectroscopy (ARPES). Physica C: Superconductivity and Its Applications, 2009, 469, 491-497.	1.2	25
80	Quantum Capacitance in Topological Insulators. Scientific Reports, 2012, 2, 669.	3.3	25
81	Direct observation of temperature-dependent Fermi surface nesting vectors in a quasi-one-dimensional conductor. Journal of Physics Condensed Matter, 2000, 12, L191-L198.	1.8	24
82	Gapped Surface States in a Strong-Topological-Insulator Material. Physical Review Letters, 2015, 114, 256401.	7.8	24
83	X-ray diffraction gratings: Precise control of ultra-low blaze angle via anisotropic wet etching. Applied Physics Letters, 2016, 109, .	3.3	21
84	Partially occupied surface state at the Fermi level of La(0001). Physical Review B, 1994, 49, 5117-5120.	3.2	20
85	Ytterbium-driven strong enhancement of electron-phonon coupling in graphene. Physical Review B, 2014, 90, .	3.2	19
86	Tunable spin helical Dirac quasiparticles on the surface of three-dimensional HgTe. Physical Review B, 2015, 92, .	3.2	19
87	Evolution of Fermi surface and normal-state gap in the chemically substituted cupratesBi2Sr2 ^x BixCuO6+ δ . Physical Review B, 2009, 79, .	3.2	18
88	Persistent coherence and spin polarization of topological surface states on topological insulators. Physical Review B, 2013, 88, .	3.2	18
89	Observation of an electron band above the Fermi level in FeTe0.55Se0.45 from <i>in-situ</i> surface doping. Applied Physics Letters, 2014, 105, .	3.3	18
90	Electronic structure of the metallic ground state ofLa2 ^x Sr1+2xMn2O7forx=0.59and comparison withx=0.36,0.38compounds as revealed by angle-resolved photoemission. Physical Review B, 2008, 78, .	3.2	17

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91	The nature of ferromagnetism in the chiral helimagnet Cr _{1/3} NbS ₂ . Communications Physics, 2020, 3, .	5.3	17
92	Nature of oxygen dopant-induced states in high-temperature Bi ₂ Sr ₂ CaCu ₂ O _{8+x} superconductors: A photoemission investigation. Physical Review B, 2006, 74, .	3.2	14
93	Environmental control of electron-phonon coupling in barium doped graphene. 2D Materials, 2016, 3, 045003.	4.4	14
94	Electronic structure of transferred graphene/h-BN van der Waals heterostructures with nonzero stacking angles by nano-ARPES. Journal of Physics Condensed Matter, 2016, 28, 444002.	1.8	14
95	Localization of electrons due to orbitally ordered bi-stripes in the bilayer manganite La _{2-2x} Sr _{1+2x} Mn ₂ O ₇ (x = 0.59). Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11799-11803.	7.1	12
96	Minority-spin t _{2g} states and the degree of spin polarization in ferromagnetic metallic La _{2-2x} Sr _{1+2x} Mn ₂ O ₇ (x = 0.38). Scientific Reports, 2013, 3, 3167.	3.3	12
97	Monolayer charge-neutral graphene on platinum with extremely weak electron-phonon coupling. Physical Review B, 2015, 92, .	3.2	12
98	Observation of Quantum Hall effect in an ultra-thin (Bi _{0.53} Sb _{0.47}) ₂ Te ₃ film. Applied Physics Letters, 2017, 110, .	3.3	12
99	Weak antilocalization in quasi-two-dimensional electronic states of epitaxial LuSb thin films. Physical Review B, 2019, 99, .	3.2	12
100	Magnetic effects in sulfur-decorated graphene. Scientific Reports, 2016, 6, 21460.	3.3	11
101	Formation and lithium doping of graphene on the surface of cobalt silicide. Physics of the Solid State, 2015, 57, 1040-1047.	0.6	9
102	Spectroscopic evidence of topological phase transition in the three-dimensional Dirac semimetal Cd ₃ As ₂ . Physical Review B, 2018, 98, .	3.2	9
103	Smith et al. Reply. Physical Review Letters, 2000, 85, 3986-3986.	7.8	8
104	Observation of an inverted band structure near the surface of InN. Europhysics Letters, 2008, 83, 47003.	2.0	7
105	Chemically gated electronic structure of a superconducting doped topological insulator system. Journal of Physics: Conference Series, 2013, 449, 012037.	0.4	7
106	Controlled thermodynamics for tunable electron doping of graphene on Ir(111). Physical Review B, 2016, 94, .	3.2	7
107	Disentangling the surface and bulk electronic structures of LaOFeAs. Physical Review B, 2016, 94, .	3.2	7
108	Controlling magnetoresistance by tuning semimetallicity through dimensional confinement and heteroepitaxy. Science Advances, 2021, 7, .	10.3	7

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109	Temperature-dependent study of the partially filled surface state on Tb(0001). Journal of Electron Spectroscopy and Related Phenomena, 1995, 76, 535-539.	1.7	6
110	The all-organic route to doping graphene. Physics Magazine, 2010, 3, .	0.1	6
111	Electronic and magnetic structure of rare-earth materials studied by high-resolution photoemission. Journal of Electron Spectroscopy and Related Phenomena, 1994, 68, 515-524.	1.7	5
112	Angle-resolved photoemission study of the metal-insulator transition in bismuth cobaltates. Physical Review B, 2007, 76, .	3.2	5
113	Potassium and ion beam induced electron accumulation in InN. Surface Science, 2015, 632, 154-157.	1.9	5
114	Concomitant enhancement of electron-phonon coupling and electron-electron interaction in graphene decorated with ytterbium. Applied Surface Science, 2019, 467-468, 1-4.	6.1	5
115	PanetÅal.Reply:. Physical Review Letters, 2012, 108, .	7.8	4
116	Nonrigid band shift and nonmonotonic electronic structure changes upon doping in the normal state of the pnictide high-temperature superconductor $\langle mml:math$		