

Alexander F Kemper

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4993780/publications.pdf>

Version: 2024-02-01

98
papers

3,872
citations

126907

33
h-index

128289

60
g-index

101
all docs

101
docs citations

101
times ranked

4207
citing authors

#	ARTICLE	IF	CITATIONS
1	Symmetry-breaking orbital anisotropy observed for detwinned Ba(Fe _{1-x} Co _x) ₂ Tj ETQq1 1 0.784314 rgBT / Ov the National Academy of Sciences of the United States of America, 2011, 108, 6878-6883.	7.1	464
2	Creating stable Floquet-Weyl semimetals by laser-driving of 3D Dirac materials. Nature Communications, 2017, 8, 13940.	12.8	255
3	Theory of Floquet band formation and local pseudospin textures in pump-probe photoemission of graphene. Nature Communications, 2015, 6, 7047.	12.8	203
4	Spin fluctuations and superconductivity in a three-dimensional tight-binding model for $BaFe_2As_2$. Physical Review B, 2010, 81, .	3.2	190
5	Direct Optical Coupling to an Unoccupied Dirac Surface State in the Topological Insulator Bi_2Se_3 . Physical Review Letters, 2013, 111, 136802.	7.8	142
6	Sensitivity of the superconducting state and magnetic susceptibility to key aspects of electronic structure in ferropnictides. New Journal of Physics, 2010, 12, 073030.	2.9	134
7	Theory of light-enhanced phonon-mediated superconductivity. Physical Review B, 2016, 93, .	3.2	119
8	Distinguishing Bulk and Surface Electron-Phonon Coupling in the Topological Insulator Bi_2Se_3 . Time-Resolved Photoemission Spectroscopy. Physical Review Letters, 2014, 113, 157401.	7.8	103
9	Alternative route to charge density wave formation in multiband systems. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 64-69.	7.1	86
10	Phase fluctuations and the absence of topological defects in a photo-excited charge-ordered nickelate. Nature Communications, 2012, 3, 838.	12.8	85
11	Examining Electron-Boson Coupling Using Time-Resolved Spectroscopy. Physical Review X, 2013, 3, .	8.9	82
12	Direct observation of Higgs mode oscillations in the pump-probe photoemission spectra of electron-phonon mediated superconductors. Physical Review B, 2015, 92, .	3.2	78
13	Theoretical description of high-order harmonic generation in solids. New Journal of Physics, 2013, 15, 023003.	2.9	73
14	Direct determination of mode-projected electron-phonon coupling in the time domain. Science, 2019, 366, 1231-1236.	12.6	73
15	Spin-polarized surface resonances accompanying topological surface state formation. Nature Communications, 2016, 7, 13143.	12.8	71
16	Ultrafast electron dynamics in the topological insulator Bi_2Se_3 studied by time-resolved photoemission spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2014, 195, 249-257.	1.7	66
17	Energy dissipation from a correlated system driven out of equilibrium. Nature Communications, 2016, 7, 13761.	12.8	63
18	Nonequilibrium electron and lattice dynamics of strongly correlated $Bi_2CaCu_2O_{8+\delta}$ single crystals. Science Advances, 2018, 4, eaap7427.	10.3	58

#	ARTICLE	IF	CITATIONS
19	Band-Resolved Imaging of Photocurrent in a Topological Insulator. Physical Review Letters, 2019, 122, 167401.	7.8	55
20	Effects of cobalt doping and three-dimensionality in BaFe_2As_2 . Physical Review B, 2009, 80, .	3.2	54
21	Density functional study of gold and iron clusters on perfect and defected graphene. Physical Review B, 2012, 85, .	3.2	53
22	Photoemission signature of excitons. Physical Review B, 2018, 97, .	3.2	50
23	Effect of dynamical spectral weight redistribution on effective interactions in time-resolved spectroscopy. Physical Review B, 2014, 90, .	3.2	45
24	Review of the Theoretical Description of Time-Resolved Angle-Resolved Photoemission Spectroscopy in Electron-Phonon Mediated Superconductors. Annalen Der Physik, 2017, 529, 1600235.	2.4	41
25	Dense Electron-Hole Plasma Formation and Ultralong Charge Lifetime in Monolayer MoS ₂ via Material Tuning. Nano Letters, 2019, 19, 1104-1111.	9.1	41
26	Balancing Act: Evidence for a Strong Subdominant d -Wave Pairing Channel in BaFe_2As_2 . Nature Communications, 2014, 5, 3711.	8.9	40
27	Dynamic competition between spin-density wave order and superconductivity in underdoped BaFe_2As_2 . Nature Communications, 2014, 5, 3711.	12.8	38
28	Surface vibrational modes of the topological insulator Bi_2Te_3 observed by Raman spectroscopy. Physical Review B, 2017, 95, .	2.2	38
29	All-optical nonequilibrium pathway to stabilising magnetic Weyl semimetals in pyrochlore iridates. Nature Communications, 2018, 9, 4452.	12.8	38
30	Anisotropic quasiparticle lifetimes in Fe-based superconductors. Physical Review B, 2011, 83, .	3.2	37
31	Driven-dissipative quantum mechanics on a lattice: Simulating a fermionic reservoir on a quantum computer. Physical Review B, 2020, 102, .	3.2	37
32	Mapping of unoccupied states and relevant bosonic modes via the time-dependent momentum distribution. Physical Review B, 2013, 87, .	3.2	36
33	Quantum computation of magnon spectra. Physical Review B, 2020, 101, .	3.2	35
34	Direct characterization of photoinduced lattice dynamics in BaFe_2As_2 . Nature Communications, 2015, 6, 7377.	12.8	32
35	Theoretical Phase Diagram for the Room-Temperature Electron-Hole Liquid in Photoexcited Quasi-Two-Dimensional Monolayer MoS ₂ . Nano Letters, 2018, 18, 455-459.	9.1	32
36	Simulating quantum materials with digital quantum computers. Quantum Science and Technology, 2021, 6, 043002.	5.8	32

#	ARTICLE	IF	CITATIONS
37	Manipulation of Gap Nodes by Uniaxial Strain in Iron-Based Superconductors. Physical Review Letters, 2014, 113, 217001.	7.8	31
38	Theory of Two-Magnon Raman Scattering in Iron Pnictides and Chalcogenides. Physical Review Letters, 2011, 106, 067002.	7.8	29
39	Observation of chiral surface excitons in a topological insulator Bi ₂ Se ₃ . Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4006-4011.	7.1	29
40	Nonequilibrium dynamics of spontaneous symmetry breaking into a hidden state of charge-density wave. Nature Communications, 2021, 12, 566.	12.8	29
41	Detailed band structure of twinned and detwinned BaFe_2As_2 studied with angle-resolved photoemission spectroscopy. Physical Review B, 2019, 99, .	12.2	28
42	Electron-Mediated Relaxation Following Ultrafast Pumping of Strongly Correlated Materials: Model Evidence of a Correlation-Tuned Crossover between Thermal and Nonthermal States. Physical Review Letters, 2013, 111, 077401.	7.8	27
43	The rate of quasiparticle recombination probes the onset of coherence in cuprate superconductors. Scientific Reports, 2016, 6, 23610.	3.3	27
44	Ultrafast resonant soft x-ray diffraction dynamics of the charge density wave in TbTe ₃ . Physical Review B, 2016, 93, .	3.2	27
45	Electronic structure of the metallic pyrochlore iridate Bi ₂ IrO ₇ . Physical Review B, 2016, 93, .	3.2	24
46	Coherent control of asymmetric spintronic terahertz emission from two-dimensional hybrid metal halides. Nature Communications, 2021, 12, 5744.	12.8	24
47	Dynamics of correlation-frozen antinodal quasiparticles in superconducting cuprates. Science Advances, 2018, 4, eaar1998.	10.3	23
48	Many-body thermodynamics on quantum computers via partition function zeros. Science Advances, 2021, 7, .	10.3	22
49	Enhanced charge density wave coherence in a light-quenched, high-temperature superconductor. Science, 2022, 376, 860-864.	12.6	22
50	Thickness-Dependent Coherent Phonon Frequency in Ultrathin FeSe/SrTiO ₃ Films. Nano Letters, 2015, 15, 4150-4154.	9.1	21
51	General Principles for the Nonequilibrium Relaxation of Populations in Quantum Materials. Physical Review X, 2018, 8, .	8.9	21
52	Algebraic compression of quantum circuits for Hamiltonian evolution. Physical Review A, 2022, 105, .	2.5	21
53	Nonequilibrium Green's function study of Pd_4C carbon nanotubes as hydrogen sensors. Physical Review B, 2009, 79, .	3.2	19
54	Classification of collective modes in a charge density wave by momentum-dependent modulation of the electronic band structure. Physical Review B, 2015, 91, .	3.2	19

#	ARTICLE	IF	CITATIONS
55	Insensitivity of d-wave pairing to disorder in the high-temperature cuprate superconductors. Physical Review B, 2009, 79, .	3.2	18
56	Ultrafast dynamics of vibrational symmetry breaking in a charge-ordered nickelate. Science Advances, 2017, 3, e1600735.	10.3	18
57	Amplitude mode oscillations in pump-probe photoemission spectra from a d-wave superconductor. Physical Review B, 2017, 96, .	3.2	18
58	Hot electron transport in a strongly correlated transition-metal oxide. Scientific Reports, 2013, 3, 1274.	3.3	16
59	Bandwidth and Electron Correlation-Tuned Superconductivity in $\text{Rb}_{0.8}\text{Fe}_2(\text{Se}_{1-x}\text{S}_x)_2$. Physical Review Letters, 2015, 115, 256403.	7.8	16
60	Coherent excitonic quantum beats in time-resolved photoemission measurements. Physical Review B, 2019, 99, .	3.2	16
61	Numerical integration for ab initio many-electron self energy calculations within the GW approximation. Journal of Computational Physics, 2015, 286, 1-13.	3.8	15
62	Bandgap closure and reopening in CsAuCl_3 at high pressure. Physical Review B, 2014, 89, .	3.2	14
63	Establishing nonthermal regimes in pump-probe electron relaxation dynamics. Physical Review B, 2020, 102, .	3.2	14
64	Tunneling spectroscopy for probing orbital anisotropy in iron pnictides. Physical Review B, 2013, 88, .	3.2	13
65	Time-dependent charge-order and spin-order recovery in striped systems. Physical Review B, 2013, 88, .	3.2	12
66	Nonequilibrium electron dynamics in pump-probe spectroscopy: Role of excited phonon populations. Physical Review B, 2018, 98, .	3.2	12
67	Determining quantum phase diagrams of topological Kitaev-inspired models on NISQ quantum hardware. Quantum - the Open Journal for Quantum Science, 0, 5, 553.	0.0	12
68	Spectral Evidence for Emergent Order in BaFe_2As_2 . Physical Review Letters, 2018, 121, 127001.	7.8	11
69	Visualizing Tailored Spin Phenomena in a Reduced-Dimensional Topological Superlattice. Advanced Materials, 2020, 32, e2005315.	21.0	11
70	Relationship between Population Dynamics and the Self-Energy in Driven Non-Equilibrium Systems. Entropy, 2016, 18, 180.	2.2	10
71	Fermi liquid theory sheds light on hot electron-hole liquid in S_2 . Physical Review B, 2021, 103, .	3.2	9
72	Quantum Fluctuations of Charge Order Induce Phonon Softening in a Superconducting Cuprate. Physical Review X, 2021, 11, .	8.9	9

#	ARTICLE	IF	CITATIONS
73	An Algebraic Quantum Circuit Compression Algorithm for Hamiltonian Simulation. SIAM Journal on Matrix Analysis and Applications, 2022, 43, 1084-1108.	1.4	9
74	Structure and functionality of bromine doped graphite. Journal of Chemical Physics, 2013, 138, 164702.	3.0	8
75	Flat-band-induced itinerant ferromagnetism in RbCo_2Se_2 . Physical Review B, 2021, 103, .	3.2	8
76	Curvature effect on the interaction between folded graphitic surface and silver clusters. Physical Review B, 2009, 79, .	3.2	7
77	Higgs oscillations in time-resolved optical conductivity. Physical Review B, 2019, 100, .	3.2	7
78	Timescales of excited state relaxation in RuCl_2 observed by time-resolved two-photon photoemission spectroscopy. Physical Review B, 2021, 103, .	3.2	7
79	Scattering bottleneck for spin dynamics in metallic helical antiferromagnetic dysprosium. Physical Review B, 2015, 92, .	3.2	6
80	Probing the interplay between lattice dynamics and short-range magnetic correlations in CuGeO_3 with femtosecond RIXS. Npj Quantum Materials, 2021, 6, .	5.2	6
81	What do the two times in two-time correlation functions mean for interpreting tr-ARPES?. Journal of Electron Spectroscopy and Related Phenomena, 2021, 251, 147104.	1.7	6
82	Pulsed high harmonic generation of light due to pumped Bloch oscillations in noninteracting metals. Physica Scripta, 2012, T151, 014062.	2.5	5
83	First-principles study of the phonon modes in bismuth sillenites. Physical Review B, 2015, 91, .	3.2	5
84	Interfacial structure of $\text{SrZrTi}_2\text{O}_7$ films on Ge. Applied Physics Letters, 2018, 113, 201601.	3.3	5
85	The role of average time dependence on the relaxation of excited electron populations in nonequilibrium many-body physics. Fortschritte Der Physik, 2017, 65, 1600042.	4.4	4
86	Automated tracking of <i>S. pombe</i> spindle elongation dynamics. Journal of Microscopy, 2021, 284, 83-94.	1.8	4
87	Relaxation timescales and electron-phonon coupling in optically pumped $\text{YBa}_2\text{Cu}_3\text{O}_6$ revealed by time-resolved Raman scattering. Physical Review B, 2021, 104, .	3.2	4
88	Exact solution for high harmonic generation and the response to an ac driving field for a charge density wave insulator. Physical Review B, 2014, 90, .	3.2	2
89	Identifying a forward-scattering superconductor through pump-probe spectroscopy. Europhysics Letters, 2018, 124, 67002.	2.0	2
90	Quantum Markov chain Monte Carlo with digital dissipative dynamics on quantum computers. Quantum Science and Technology, 2022, 7, 025017.	5.8	2

#	ARTICLE	IF	CITATIONS
91	Determining Ground-State Phase Diagrams on Quantum Computers via a Generalized Application of Adiabatic State Preparation. <i>Symmetry</i> , 2022, 14, 809.	2.2	2
92	Theory of Time-Resolved Optical Conductivity of Superconductors: Comparing Two Methods for Its Evaluation. <i>Condensed Matter</i> , 2019, 4, 79.	1.8	1
93	Publisher's Note: Effect of dynamical spectral weight redistribution on effective interactions in time-resolved spectroscopy [<i>Phys. Rev. B</i> 90, 075126 (2014)]. <i>Physical Review B</i> , 2014, 90, .	3.2	0
94	Relaxation of nonequilibrium populations after a pump: the breaking of Mathiessen's rule. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
95	Evolution of nonthermal electrons in pump-probe electron relaxation dynamics. , 2021, , .		0
96	Transient Exchange Interaction in a Helical Antiferromagnet. , 2015, , .		0
97	Ultrafast multi-terahertz probes of symmetry breaking in a stripe-phase correlated oxide. , 2018, , .		0
98	Determination of mode-projected electron-phonon coupling from time-domain observations of microscopic scattering processes. , 2020, , .		0