

Brian J Moritz

List of Publications by Year in descending order

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papers

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all docs

141
docs citations

141
times ranked

6842
citing authors

#	ARTICLE	IF	CITATIONS
1	Electronic structure of superconducting nickelates probed by resonant photoemission spectroscopy. <i>Matter</i> , 2022, 5, 1806-1815.	5.0	15
2	On the Nature of Valence Charge and Spin Excitations via Multi-Orbital Hubbard Models for Infinite-Layer Nickelates. <i>Frontiers in Physics</i> , 2022, 10, .	1.0	1
3	Sign-free determinant quantum Monte Carlo study of excitonic density orders in a two-orbital Hubbard-Kanamori model. <i>Physical Review B</i> , 2022, 105, .	1.1	4
4	Magnon heat transport in a two-dimensional Mott insulator. <i>Physical Review B</i> , 2022, 105, .	1.1	5
5	Anisotropy of the magnetic and transport properties of EuZn_2As_2 . <i>Physical Review B</i> , 2022, 105, .	1.1	9
6	Spectroscopic fingerprint of charge order melting driven by quantum fluctuations in a cuprate. <i>Nature Physics</i> , 2021, 17, 53-57.	6.5	36
7	Coulombically-stabilized oxygen hole polarons enable fully reversible oxygen redox. <i>Energy and Environmental Science</i> , 2021, 14, 4858-4867.	15.6	29
8	Electronic Structure Trends Across the Rare-Earth Series in Superconducting Infinite-Layer Nickelates. <i>Physical Review X</i> , 2021, 11, .	2.8	57
9	Tendencies of enhanced electronic nematicity in the Hubbard model and a comparison with Raman scattering on high-temperature superconductors. <i>Physical Review B</i> , 2021, 103, .	1.1	3
10	Evolution of the electronic structure in Ta_2As_2 across the structural transition revealed by resonant inelastic x-ray scattering. <i>Physical Review B</i> , 2021, 103, .	1.1	7
11	Superconductivity, charge density waves, and bipolarons in the Holstein model. <i>Physical Review B</i> , 2021, 103, .	1.1	17
12	Magnetic excitations in infinite-layer nickelates. <i>Science</i> , 2021, 373, 213-216.	6.0	110
13	Numerical approaches for calculating the low-field dc Hall coefficient of the doped Hubbard model. <i>Physical Review Research</i> , 2021, 3, .	1.3	4
14	Anomalously strong near-neighbor attraction in doped 1D cuprate chains. <i>Science</i> , 2021, 373, 1235-1239.	6.0	62
15	X-ray scattering from light-driven spin fluctuations in a doped Mott insulator. <i>Communications Physics</i> , 2021, 4, .	2.0	6
16	Intertwined States at Finite Temperatures in the Hubbard Model. <i>Journal of the Physical Society of Japan</i> , 2021, 90, 111010.	0.7	5
17	Web-based methods for X-ray and photoelectron spectroscopies. <i>Computational Materials Science</i> , 2021, 200, 110814.	1.4	3
18	Phonon-Mediated Long-Range Attractive Interaction in One-Dimensional Cuprates. <i>Physical Review Letters</i> , 2021, 127, 197003.	2.9	34

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19	Orbitally selective resonant photodoping to enhance superconductivity. Physical Review B, 2021, 104, .	1.1	3
20	Orbital and spin character of doped carriers in infinite-layer nickelates. Physical Review B, 2021, 104, .	1.1	50
21	Ab initio molecular dynamics study of SiO ₂ lithiation. Chemical Physics Letters, 2020, 739, 136933.	1.2	8
22	DC Hall coefficient of the strongly correlated Hubbard model. Npj Quantum Materials, 2020, 5, .	1.8	15
23	Observing photo-induced chiral edge states of graphene nanoribbons in pump-probe spectroscopies. Npj Quantum Materials, 2020, 5, .	1.8	8
24	Emergence of quasiparticles in a doped Mott insulator. Communications Physics, 2020, 3, .	2.0	8
25	Time-resolved resonant inelastic x-ray scattering in a pumped Mott insulator. Physical Review B, 2020, 101, .	1.1	13
26	Biexciton Condensation in Electron-Hole-Doped Hubbard Bilayers: A Sign-Problem-Free Quantum MonteCarlo Study. Physical Review Letters, 2020, 124, 077601.	2.9	8
27	Electronic structure of the parent compound of superconducting infinite-layer nickelates. Nature Materials, 2020, 19, 381-385.	13.3	205
28	Tender X-rays. Nature Materials, 2019, 18, 537-538.	13.3	0
29	Numerical investigation of spin excitations in a doped spin chain. Physical Review B, 2019, 99, .	1.1	10
30	Theory for time-resolved resonant inelastic x-ray scattering. Physical Review B, 2019, 99, .	1.1	23
31	Frustrated magnetism from local moments in FeSe. Physical Review B, 2019, 99, .	1.1	12
32	Electronic structure of the quadrupolar ordered heavy-fermion compound YbRu ₂ Ge ₂ measured by angle-resolved photoemission. Physical Review B, 2019, 99, .	1.1	3
33	Frustrated spin order and stripe fluctuations in FeSe. Communications Physics, 2019, 2, .	2.0	21
34	Fermi surface reconstruction in electron-doped cuprates without antiferromagnetic long-range order. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 3449-3453.	3.3	32
35	Pressure Effects on the $4f$ Electronic Structure of Light Lanthanides. Physical Review Letters, 2019, 122, 066401.	2.9	4
36	Strange metallicity in the doped Hubbard model. Science, 2019, 366, 987-990.	6.0	77

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37	Solid Electrolyte Interphase on Native Oxide-Terminated Silicon Anodes for Li-Ion Batteries. <i>Joule</i> , 2019, 3, 762-781.	11.7	185
38	Stripe order from the perspective of the Hubbard model. <i>Npj Quantum Materials</i> , 2018, 3, .	1.8	83
39	Resonant inelastic x-ray scattering studies of magnons and bimagnons in the lightly doped cuprate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>La</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> <i>Physical Review B</i> , 2018, 97, .	1.1	22
40	Paradeisos: A perfect hashing algorithm for many-body eigenvalue problems. <i>Computer Physics Communications</i> , 2018, 224, 81-89.	3.0	15
41	Breakdown of the Migdal-Eliashberg theory: A determinant quantum Monte Carlo study. <i>Physical Review B</i> , 2018, 97, .	1.1	68
42	Influence of magnetism and correlation on the spectral properties of doped Mott insulators. <i>Physical Review B</i> , 2018, 97, .	1.1	9
43	Microscopic origin of Cooper pairing in the iron-based superconductor $Ba1-xKxFe2As2$. <i>Npj Quantum Materials</i> , 2018, 3, .	1.8	17
44	Rapid change of superconductivity and electron-phonon coupling through critical doping in Bi-2212. <i>Science</i> , 2018, 362, 62-65.	6.0	98
45	Dispersion, damping, and intensity of spin excitations in the monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>B</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math> <i>Physical Review B</i> , 2018, 98, .		
46	Three-dimensional collective charge excitations in electron-doped copper oxide superconductors. <i>Nature</i> , 2018, 563, 374-378.	13.7	100
47	Spectroscopic Signature of Oxidized Oxygen States in Peroxides. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6378-6384.	2.1	80
48	Theoretical understanding of photon spectroscopies in correlated materials in and out of equilibrium. <i>Nature Reviews Materials</i> , 2018, 3, 312-323.	23.3	38
49	Light-Enhanced Spin Fluctuations and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>d</mml:mi></mml:math>-Wave Superconductivity at a Phase Boundary. <i>Physical Review Letters</i> , 2018, 120, 246402.	2.9	36
50	Magnon Splitting Induced by Charge Transfer in the Three-Orbital Hubbard Model. <i>Physical Review Letters</i> , 2018, 120, 246401.	2.9	5
51	Dispersive charge density wave excitations in $Bi2Sr2CaCu2O8+\delta$. <i>Nature Physics</i> , 2017, 13, 952-956.	6.5	101
52	Dynamical time-reversal symmetry breaking and photo-induced chiral spin liquids in frustrated Mott insulators. <i>Nature Communications</i> , 2017, 8, 1192.	5.8	100
53	Numerically exploring the 1D-2D dimensional crossover on spin dynamics in the doped Hubbard model. <i>Physical Review B</i> , 2017, 96, .	1.1	14
54	Spin and charge excitations in artificial hole- and electron-doped infinite layer cuprate superconductors. <i>Physical Review B</i> , 2017, 96, .	1.1	17

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55	Decrease of d -wave pairing strength in spite of the persistence of magnetic excitations in the overdoped Hubbard model. Physical Review B, 2017, 96, .	1.1	16
56	Nonequilibrium lattice-driven dynamics of stripes in nickelates using time-resolved x-ray scattering. Physical Review B, 2017, 95, .	1.1	3
57	Femtosecond electron-phonon lock-in by photoemission and x-ray free-electron laser. Science, 2017, 357, 71-75.	6.0	177
58	Revealing the Coulomb interaction strength in a cuprate superconductor. Physical Review B, 2017, 96, .	1.1	19
59	Numerical evidence of fluctuating stripes in the normal state of high- T_c cuprate superconductors. Science, 2017, 358, 1161-1164.	6.0	132
60	Amplitude mode oscillations in pump-probe photoemission spectra from a d -wave superconductor. Physical Review B, 2017, 96, .	1.1	18
61	Doping dependence of ordered phases and emergent quasiparticles in the doped Hubbard-Holstein model. Physical Review B, 2017, 96, .	1.1	12
62	Quantum spin Hall state in monolayer $1T'$ -WTe ₂ . Nature Physics, 2017, 13, 683-687.	6.5	596
63	Effects of an additional conduction band on the singlet-antiferromagnet competition in the periodic Anderson model. Physical Review B, 2017, 95, .	1.1	17
64	Producing coherent excitations in pumped Mott antiferromagnetic insulators. Physical Review B, 2017, 96, .	1.1	33
65	Review of the Theoretical Description of Time-Resolved Angle-Resolved Photoemission Spectroscopy in Electron-Phonon Mediated Superconductors. Annalen Der Physik, 2017, 529, 1600235.	0.9	41
66	Raman and fluorescence characteristics of resonant inelastic X-ray scattering from doped superconducting cuprates. Scientific Reports, 2016, 6, 19657.	1.6	32
67	Distinct Electronic Structure for the Extreme Magnetoresistance in YSb. Physical Review Letters, 2016, 117, 267201.	2.9	77
68	All-optical materials design of chiral edge modes in transition-metal dichalcogenides. Nature Communications, 2016, 7, 13074.	5.8	71
69	Tailoring the nature and strength of electron-phonon interactions in the SrTiO ₃ (001) 2D electron liquid. Nature Materials, 2016, 15, 835-839.	13.3	171
70	Characterizing the three-orbital Hubbard model with determinant quantum Monte Carlo. Physical Review B, 2016, 93, .	1.1	42
71	Using Nonequilibrium Dynamics to Probe Competing Orders in a Mott-Peierls System. Physical Review Letters, 2016, 116, 086401.	2.9	18
72	Using RIXS to Uncover Elementary Charge and Spin Excitations. Physical Review X, 2016, 6, .	2.8	48

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73	Origin of the low critical observing temperature of the quantum anomalous Hall effect in V-doped (Bi, Sb) ₂ Te ₃ film. Scientific Reports, 2016, 6, 32732.	1.6	42
74	Directly Characterizing the Relative Strength and Momentum Dependence of Electron-Phonon Coupling Using Resonant Inelastic X-Ray Scattering. Physical Review X, 2016, 6, .	2.8	51
75	Renormalization of spectra by phase competition in the half-filled Hubbard-Holstein model. Physical Review B, 2015, 91, .	1.1	19
76	Fidelity study of superconductivity in extended Hubbard models. Physical Review B, 2015, 92, .	1.1	8
77	Origin of strong dispersion in Hubbard insulators. Physical Review B, 2015, 92, .	1.1	27
78	Doping evolution of spin and charge excitations in the Hubbard model. Physical Review B, 2015, 92, .	1.1	30
79	Direct observation of Higgs mode oscillations in the pump-probe photoemission spectra of electron-phonon mediated superconductors. Physical Review B, 2015, 92, .	1.1	78
80	Probing LaMO ₃ Metal and Oxygen Partial Density of States Using X-ray Emission, Absorption, and Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 2063-2072.	1.5	56
81	Theory of Floquet band formation and local pseudospin textures in pump-probe photoemission of graphene. Nature Communications, 2015, 6, 7047.	5.8	203
82	Direct characterization of photoinduced lattice dynamics in BaFe ₂ As ₂ . Nature Communications, 2015, 6, 7377.	5.8	32
83	Why LiFePO ₄ is a safe battery electrode: Coulomb repulsion induced electron-state reshuffling upon lithiation. Physical Chemistry Chemical Physics, 2015, 17, 26369-26377.	1.3	52
84	Direct spectroscopic evidence for phase competition between the pseudogap and superconductivity in Bi ₂ Sr ₂ CaCu ₂ O ₈ +f. Nature Materials, 2015, 14, 37-42.	13.3	92
85	Charge-orbital-lattice coupling effects in the profile of one-dimensional cuprates. Physical Review B, 2014, 89, .		
86	Publisher's Note: Effect of dynamical spectral weight redistribution on effective interactions in time-resolved spectroscopy [Phys. Rev. B, 90, 075126 (2014)]. Physical Review B, 2014, 90, .	1.1	0
87	Effect of dynamical spectral weight redistribution on effective interactions in time-resolved spectroscopy. Physical Review B, 2014, 90, .	1.1	45
88	Numerical exploration of spontaneous broken symmetries in multiorbital Hubbard models. Physical Review B, 2014, 90, .	1.1	15
89	Real-Space Visualization of Remnant Mott Gap and Magnon Excitations. Physical Review Letters, 2014, 112, 156402.	2.9	15
90	Dynamic competition between spin-density wave order and superconductivity in underdoped Ba _{1-x} K _x Fe ₂ As ₂ . Nature Communications, 2014, 5, 3711.	5.8	38

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109	Phase fluctuations and the absence of topological defects in a photo-excited charge-ordered nickelate. <i>Nature Communications</i> , 2012, 3, 838.	5.8	85
110	Numerical studies of photon-based spectroscopies on high- superconductors. <i>Computer Physics Communications</i> , 2011, 182, 106-108.	3.0	2
111	Temporal response of nonequilibrium correlated electrons. <i>Computer Physics Communications</i> , 2011, 182, 109-111.	3.0	4
112	Revealing the degree of magnetic frustration by non-magnetic impurities. <i>New Journal of Physics</i> , 2011, 13, 043025.	1.2	7
113	Coincidence between energy gaps and Kohn anomalies in conventional superconductors. <i>Physical Review B</i> , 2011, 84, .	1.1	3
114	Investigation of particle-hole asymmetry in the cuprates via electronic Raman scattering. <i>Physical Review B</i> , 2011, 84, .	1.1	13
115	Fidelity study of the superconducting phase diagram in the two-dimensional single-band Hubbard model. <i>Physical Review B</i> , 2011, 84, .	1.1	16
116	High-energy anomaly in $\text{Nd}_2\text{x}\text{Ce}_x\text{CuO}_4$ investigated by angle-resolved photoemission spectroscopy and quantum Monte Carlo simulations. <i>Physical Review B</i> , 2011, 83, .	1.1	8
117	Symmetry-breaking orbital anisotropy observed for detwinned $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{TeO}_7$. <i>Physical Review Letters</i> , 2011, 106, 067201. https://doi.org/10.1126/science.1207401 the National Academy of Sciences of the United States of America, 2011, 108, 6878-6883.	3.3	464
118	Insights on the cuprate high energy anomaly observed in ARPES. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2010, 181, 31-34.	0.8	10
119	Material and Doping Dependence of the Nodal and Antinodal Dispersion Renormalizations in Single- and Multilayer Cuprates. <i>Advances in Condensed Matter Physics</i> , 2010, 2010, 1-13.	0.4	16
120	Doping-Dependent Nodal Fermi Velocity of the High-Temperature Superconductor Bi_2Te_3 . <i>Physical Review Letters</i> , 2010, 104, 037201. https://doi.org/10.1126/science.1207401 Using High-Resolution Angle-Resol. <i>Physical Review Letters</i> , 2010, 104, 207002.	2.9	92
121	Time-resolved photoemission of correlated electrons driven out of equilibrium. <i>Physical Review B</i> , 2010, 81, .	1.1	33
122	Nonlocal Effects on Magnetism in the Diluted Magnetic Semiconductor $\text{Ga}_x\text{Mn}_2\text{O}_4$. <i>Physical Review Letters</i> , 2010, 104, 037201. https://doi.org/10.1126/science.1207401	2.9	7
123	Momentum-Resolved CuO Edge Resonant Inelastic X-Ray Scattering. <i>Physical Review Letters</i> , 2010, 105, 177401.	2.9	39
124	Strong energy-momentum dispersion of phonon-dressed carriers in the lightly doped band insulator SrTiO_3 . <i>New Journal of Physics</i> , 2010, 12, 023004.	1.2	55
125	Orbital order and spontaneous orthorhombicity in iron pnictides. <i>Physical Review B</i> , 2010, 82, .	1.1	190
126	Systematic study of electron-phonon coupling to oxygen modes across the cuprates. <i>Physical Review B</i> , 2010, 82, .	1.1	119

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127	Finite-temperature spin dynamics and phase transitions in spin-orbital models. Physical Review B, 2009, 80, .	1.1	56
128	Effect of strong correlations on the high energy anomaly in hole- and electron-doped high- T_c superconductors. New Journal of Physics, 2009, 11, 093020.	1.2	48
129	A momentum-dependent perspective on quasiparticle interference in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$. Nature Physics, 2009, 5, 718-721.	6.5	47
130	Evidence for weak electronic correlations in iron pnictides. Physical Review B, 2009, 80, .	1.1	176
131	CuK-edge resonant inelastic x-ray scattering in edge-sharing cuprates. Physical Review B, 2008, 77, .	1.1	34
132	Synergistic Polaron Formation in the Hubbard-Holstein Model at Small Doping. Physical Review Letters, 2006, 97, 056402.	2.9	45
133	Continuous spectra of a family of lattices containing the modified rectangle lattice of Dhar. Physical Review B, 2005, 71, .	1.1	10
134	TOPOLOGICAL LATTICE MODEL OF ELECTRONS COUPLED TO A CLASSICAL POLARIZATION FIELD. International Journal of Modern Physics B, 2001, 15, 3336-3343.	1.0	0
135	DYNAMICS OF CREMONA MAPS FROM PHYSICAL MODELS. International Journal of Modern Physics B, 2001, 15, 3279-3286.	1.0	0
136	Triangle lattice Green functions for vector fields. Journal of Physics A, 2001, 34, 589-602.	1.6	13
137	Vector difference calculus for physical lattice models. Physical Review E, 1999, 59, 1217-1233.	0.8	33
138	Finding Lie groups that reduce the order of discrete dynamical systems. Journal of Physics A, 1998, 31, 7379-7402.	1.6	8