

# Steve Johnston

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3517271/publications.pdf>

Version: 2024-02-01

106  
papers

3,352  
citations

172457

29  
h-index

161849

54  
g-index

106  
all docs

106  
docs citations

106  
times ranked

3522  
citing authors

#	ARTICLE	IF	CITATIONS
1	Intertwined spin, charge, and pair correlations in the two-dimensional Hubbard model in the thermodynamic limit. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	26
2	Role of Oxygen States in the Low Valence Nickelate $\text{LaO}_{8-x}\text{F}_x$ Physical Review X, 2022, 12, .	3.94	11
3	Doping dependence of the electron-phonon coupling in two families of bilayer superconducting cuprates. Physical Review B, 2022, 105, .	3.2	7
4	Dynamical tuning of the chemical potential to achieve a target particle number in grand canonical Monte Carlo simulations. Physical Review E, 2022, 105, 045311.	2.1	6
5	Quadrupolar magnetic excitations in an isotropic spin-1 antiferromagnet. Nature Communications, 2022, 13, 2327.	12.8	10
6	Theory of dispersive optical phonons in resonant inelastic x-ray scattering experiments. Physical Review B, 2022, 105, .	3.2	2
7	Enhancing $c$ in a composite superconductor/metal bilayer system: A dynamical cluster approximation study. Physical Review B, 2022, 105, .	3.2	6
8	Orbital structure of the effective pairing interaction in the high-temperature superconducting cuprates. Npj Quantum Materials, 2021, 6, .	5.2	15
9	Polaron and bipolaron tendencies in a semiclassical model for hole-doped bismuthates. Physical Review B, 2021, 103, .	3.2	5
10	Pairing correlations in the cuprates: A numerical study of the three-band Hubbard model. Physical Review B, 2021, 103, .	3.2	11
11	Enhanced superconductivity in FeSe/SrTiO <sub>3</sub> from the combination of forward scattering phonons and spin fluctuations. Physical Review B, 2021, 103, .	3.2	10
12	Probing the interplay between lattice dynamics and short-range magnetic correlations in CuGeO <sub>3</sub> with femtosecond RIXS. Npj Quantum Materials, 2021, 6, .	5.2	6
13	Evolution of spin excitations from bulk to monolayer FeSe. Nature Communications, 2021, 12, 3122.	12.8	29
14	Superconductivity, charge density waves, and bipolarons in the Holstein model. Physical Review B, 2021, 103, .	3.2	17
15	Beyond the single-site approximation modeling of electron-phonon coupling effects on resonant inelastic X-ray scattering spectra. SciPost Physics, 2021, 11, .	4.9	5
16	Particle-hole asymmetry in the dynamical spin and charge responses of corner-shared 1D cuprates. Communications Physics, 2021, 4, .	5.3	14
17	Quantum Fluctuations of Charge Order Induce Phonon Softening in a Superconducting Cuprate. Physical Review X, 2021, 11, .	8.9	9
18	Hybridization of Bogoliubov Quasiparticles between Adjacent $\text{CuO}_2$ Layers in the Triple-Layer Cuprate $\text{Bi}_2\text{TeO}_5$ Physical Review Letters, 2021, 127, 217004.	7.8	5

#	ARTICLE	IF	CITATIONS
19	Superconductivity in the bilayer Hubbard model: Two Fermi surfaces are better than one. Physical Review B, 2021, 104, .	3.2	8
20	Relative importance of nonlinear electron-phonon coupling and vertex corrections in the Holstein model. Communications Physics, 2020, 3, .	5.3	20
21	Spectroscopic signatures of next-nearest-neighbor hopping in the charge and spin dynamics of doped one-dimensional antiferromagnets. Physical Review B, 2020, 102, .	3.2	6
22	Superconductivity in a Hole-Doped Mott-Insulating Triangular Adatom Layer on a Silicon Surface. Physical Review Letters, 2020, 125, 117001.	7.8	26
23	Quantum-classical simulation of two-site dynamical mean-field theory on noisy quantum hardware. Quantum Science and Technology, 2020, 5, 035001.	5.8	27
24	Quantum Monte Carlo study of lattice polarons in the two-dimensional three-orbital Suâ€“Schriefferâ€“Heeger model. Npj Quantum Materials, 2020, 5, .	5.2	26
25	Multiorbital charge-density wave excitations and concomitant phonon anomalies in Bi <sub>2</sub> Sr <sub>2</sub> LaCuO <sub>6+Î´</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16219-16225.	7.1	29
26	Determining the electron-phonon coupling in superconducting cuprates by resonant inelastic x-ray scattering: Methods and results on $\text{Nd}_{1-x}\text{Ce}_x\text{CuO}_2$ . Physical Review Research, 2020, 2, .	3.6	20
27	Accelerating lattice quantum Monte Carlo simulations using artificial neural networks: Application to the Holstein model. Physical Review B, 2019, 100, .	3.2	23
28	Fingerprints of an orbital-selective Mott phase in the block magnetic state of BaFe <sub>2</sub> Se <sub>3</sub> ladders. Communications Physics, 2019, 2, .	5.3	34
29	Temperature-filling phase diagram of the two-dimensional Holstein model in the thermodynamic limit by self-consistent Migdal approximation. Physical Review B, 2019, 99, .	3.2	18
30	Theoretical study of the spin and charge dynamics of two-leg ladders as probed by resonant inelastic x-ray scattering. Physical Review B, 2019, 99, .	3.2	12
31	Zero-bias anomaly in nanoscale hole-doped Mott insulators on a triangular silicon surface. Physical Review B, 2018, 97, .	3.2	11
32	Polaronic behavior in a weak-coupling superconductor. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1475-1480.	7.1	67
33	Mass Enhancements and Band Shifts in Strongly Hole-Overdoped Fe-Based Pnictide Superconductors: KFe <sub>2</sub> As <sub>2</sub> and CsFe <sub>2</sub> As <sub>2</sub> . Journal of Superconductivity and Novel Magnetism, 2018, 31, 777-783.	1.8	6
34	Lattice dynamics of ultrathin FeSe films on SrTiO <sub>3</sub> . Physical Review B, 2018, 97, .	3.2	26
35	Experimental evidence for bipolaron condensation as a mechanism for the metal-insulator transition in rare-earth nickelates. Nature Communications, 2018, 9, 86.	12.8	40
36	Multi-spinon and antiholon excitations probed by resonant inelastic x-ray scattering on doped one-dimensional antiferromagnets. New Journal of Physics, 2018, 20, 073019.	2.9	14

#	ARTICLE	IF	CITATIONS
37	Probing multi-spin excitations outside of the two-spin continuum in the antiferromagnetic spin chain cuprate Sr <sub>2</sub> CuO <sub>3</sub> . Nature Communications, 2018, 9, 5394.	12.8	39
38	Decoupling Carrier Concentration and Electron-Phonon Coupling in Oxide Heterostructures Observed with Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2018, 121, 236802.	7.8	22
39	Coupled Cu and Mn charge and orbital orders in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> /Nd <sub>0.65</sub> (Ca <sub>1-y</sub> Sr <sub>y</sub> ) <sub>0.35</sub> MnO <sub>3</sub> multilayers. Communications Physics, 2018, 1, .	5.3	7
40	Comment on "Oxygen vacancy-induced magnetic moment in edge-sharing CuO <sub>2</sub> chains of Li <sub>2</sub> CuO <sub>2</sub> ". New Journal of Physics, 2018, 20, 058001.	2.9	8
41	Doping evolution of charge and spin excitations in two-leg Hubbard ladders: Comparing DMRG and FLEX results. Physical Review B, 2018, 97, .	3.2	14
42	Phase competition in a one-dimensional three-orbital Hubbard-Holstein model. Physical Review B, 2018, 97, .	3.2	8
43	Computing Resonant Inelastic X-Ray Scattering Spectra Using The Density Matrix Renormalization Group Method. Scientific Reports, 2018, 8, 11080.	3.3	19
44	Competing phases and orbital-selective behaviors in the two-orbital Hubbard-Holstein model. Physical Review B, 2017, 95, .	3.2	9
45	Constraints on the total coupling strength to bosons in the iron based superconductors. Physica Status Solidi (B): Basic Research, 2017, 254, 1700006.	1.5	8
46	Numerically exploring the 1D-2D dimensional crossover on spin dynamics in the doped Hubbard model. Physical Review B, 2017, 96, .	3.2	14
47	Phonon linewidth due to electron-phonon interactions with strong forward scattering in FeSe thin films on oxide substrates. Physical Review B, 2017, 96, .	3.2	13
48	Correlation of Fe-Based Superconductivity and Electron-Phonon Coupling in an FeAs <sub>2</sub> O <sub>4</sub> Heterostructure. Physical Review Letters, 2017, 119, 107003.	7.8	24
49	Numerical evidence of fluctuating stripes in the normal state of high- <i>T<sub>c</sub></i> cuprate superconductors. Science, 2017, 358, 1161-1164.	12.6	132
50	Doping dependence of ordered phases and emergent quasiparticles in the doped Hubbard-Holstein model. Physical Review B, 2017, 96, .	3.2	12
51	Structural and magnetic short-range order in fluorite Yb <sub>2</sub> Mn <sub>2</sub> O <sub>7</sub> . Physical Review B, 2017, 96, .		
52	Realization of a Hole-Doped Mott Insulator on a Triangular Silicon Lattice. Physical Review Letters, 2017, 119, 266802.	7.8	33
53	Switching Magnetism and Superconductivity with Spin-Polarized Current in Iron-Based Superconductor. Physical Review Letters, 2017, 119, 227001.	7.8	20
54	From bad metal to Kondo insulator: temperature evolution of the optical properties of SmB <sub>6</sub> . New Journal of Physics, 2016, 18, 123003.	2.9	4

#	ARTICLE	IF	CITATIONS
55	Enhanced superconductivity due to forward scattering in FeSe thin films on SrTiO <sub>3</sub> substrates. New Journal of Physics, 2016, 18, 022001. Nonrigid band shift and nonmonotonic electronic structure changes upon doping in the normal state of the pnictide high-temperature superconductor	2.9	103

56

#	ARTICLE	IF	CITATIONS
73	Numerical exploration of spontaneous broken symmetries in multiorbital Hubbard models. Physical Review B, 2014, 90, .	3.2	15
74	Charge Disproportionation without Charge Transfer in the Rare-Earth-Element Nickelates as a Possible Mechanism for the Metal-Insulator Transition. Physical Review Letters, 2014, 112, 106404.	7.8	206
75	Persistent spin excitations in doped antiferromagnets revealed by resonant inelastic light scattering. Nature Communications, 2014, 5, 3314.	12.8	120
76	Sign inversion in the superconducting order parameter of LiFeAs inferred from Bogoliubov quasiparticle interference. Physical Review B, 2014, 89, .	3.2	40
77	Interfacial mode coupling as the origin of the enhancement of T <sub>c</sub> in FeSe films on SrTiO <sub>3</sub> . Nature, 2014, 515, 245-248.	27.8	567
78	Specific heat of crystals: Unconventional superconductivity with i. Physical Review B, 2014, 89, .	3.2	24
79	Testing the Monte Carlo "mean field approximation in the one-band Hubbard model. Physical Review B, 2014, 90, .	3.2	27
80	Evidence of d-wave superconductivity in KNa compounds. Physical Review B, 2014, 89, .	3.2	37
81	Physical Properties of CuGeO <sub>3</sub> Compounds Using Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2013, 110, 087403.	7.8	41
82	Role of Lattice Coupling in Establishing Electronic and Magnetic Properties in Quasi-One-Dimensional Cuprates. Physical Review Letters, 2013, 110, 265502.	7.8	70
83	Quantifying Many-Body Effects by High-Resolution Fourier Transform Scanning Tunneling Spectroscopy. Physical Review Letters, 2013, 111, 246804.	7.8	21
84	Determinant quantum Monte Carlo study of exciton condensation in the bilayer Hubbard model. Physical Review B, 2013, 88, .	3.2	18
85	Determinant quantum Monte Carlo study of the two-dimensional single-band Hubbard-Holstein model. Physical Review B, 2013, 87, .	3.2	57
86	Ca <sub>2</sub> Y <sub>2</sub> Cu <sub>5</sub> O <sub>10</sub> : The First Frustrated Quasi-1D Ferromagnet Close to Criticality. Physical Review Letters, 2012, 109, 117207.	7.8	26
87	Specific heat and upper critical fields in KFeAs compounds. Physical Review B, 2012, 85, .	3.2	80
88	Surface Adatom Conductance Filtering in Scanning Tunneling Spectroscopy of Co-doped BaFeAs Pnictide Superconductors. Physical Review Letters, 2012, 109, 127001.	7.8	4
89	Evidence for the Importance of Extended Coulomb Interactions and Forward Scattering in Cuprate Superconductors. Physical Review Letters, 2012, 108, 166404.	7.8	48
90	Competition Between Antiferromagnetic and Charge-Density-Wave Order in the Half-Filled Hubbard-Holstein Model. Physical Review Letters, 2012, 109, 246404.	7.8	64

#	ARTICLE	IF	CITATIONS
91	Numerical studies of photon-based spectroscopies on high- superconductors. Computer Physics Communications, 2011, 182, 106-108.	7.5	2
92	Coincidence between energy gaps and Kohn anomalies in conventional superconductors. Physical Review B, 2011, 84, .	3.2	3
93	Investigation of particle-hole asymmetry in the cuprates via electronic Raman scattering. Physical Review B, 2011, 84, .	3.2	13
94	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. Physical Review B, 2011, 83, .	3.2	8
95	Insights on the cuprate high energy anomaly observed in ARPES. Journal of Electron Spectroscopy and Related Phenomena, 2010, 181, 31-34.	1.7	10
96	Material and Doping Dependence of the Nodal and Antinodal Dispersion Renormalizations in Single- and Multilayer Cuprates. Advances in Condensed Matter Physics, 2010, 2010, 1-13.	1.1	16
97	Unraveling the Nature of Charge Excitations in $\text{La}_2\text{CuO}_4$ Momentum-Resolved Cu $K$ -Edge Resonant Inelastic X-Ray Scattering. Physical Review B, 2010, 82, .	7.8	39
98	Density of states modulations from oxygen phonons in $\text{d}$ -wave superconductors: Reconciling angle-resolved photoemission spectroscopy and scanning tunneling microscopy. Physical Review B, 2010, 81, .	3.2	14
99	Systematic study of electron-phonon coupling to oxygen modes across the cuprates. Physical Review B, 2010, 82, .	3.2	119
100	High-resolution angle-resolved photoemission studies of quasiparticle dynamics in graphite. Physical Review B, 2009, 79, .	3.2	14
101	Unusual Layer-Dependent Charge Distribution, Collective Mode Coupling, and Superconductivity in Multilayer Cuprate $\text{Ba}_2\text{Ca}_3\text{Cu}_4\text{O}_{8\text{F}2}$ . Physical Review Letters, 2009, 103, 036403.	7.8	15
102	Effect of strong correlations on the high energy anomaly in hole- and electron-doped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ superconductors. New Journal of Physics, 2009, 11, 093020.	2.9	48
103	Impact of an oxygen dopant in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ . Europhysics Letters, 2009, 86, 37007.	2.0	20
104	Superconductivity-induced self-energy evolution of the nodal electron of optimally doped $\text{Bi}_2\text{Sr}_2\text{Ca}_{0.92}\text{Y}_{0.08}\text{Cu}_2\text{O}_{8+\delta}$ . Physical Review B, 2008, 77, .	3.2	31
105	Aspects of electron-phonon self-energy revealed from angle-resolved photoemission spectroscopy. Physical Review B, 2007, 75, .	3.2	20
106	Hybrid quantum-classical approach for coupled-cluster Green's function theory. Quantum - the Open Journal for Quantum Science, 0, 6, 675.	0.0	3