Hao Shi

List of Publications by Citations

26 papers	967 citations	13 h-index	27 g-index
27 ext. papers	1,296 ext. citations	5.6 avg, IF	4.5 L-index

#	Paper	IF	Citations
26	Solutions of the Two-Dimensional Hubbard Model: Benchmarks and Results from a Wide Range of Numerical Algorithms. *Physical Review X*, **2015**, 5,	9.1	269
25	Stripe order in the underdoped region of the two-dimensional Hubbard model. *Science*, **2017**, 358, 1155-1160	33.3	215
24	Ground-state properties of strongly interacting Fermi gases in two dimensions. *Physical Review A*, **2015**, 92,	2.6	58
23	Symmetry in auxiliary-field quantum Monte Carlo calculations. *Physical Review B*, **2013**, 88,	3.3	56
22	Direct Comparison of Many-Body Methods for Realistic Electronic Hamiltonians. *Physical Review X*, **2020**, 10,	9.1	46
21	Benchmark study of the two-dimensional Hubbard model with auxiliary-field quantum Monte Carlo method. *Physical Review B*, **2016**, 94,	3.3	38
20	Absence of Superconductivity in the Pure Two-Dimensional Hubbard Model. *Physical Review X*, **2020**, 10,	9.1	37
19	Symmetry-projected wave functions in quantum Monte Carlo calculations. *Physical Review B*, **2014**, 89,	3.3	36
18	Infinite variance in fermion quantum Monte Carlo calculations. *Physical Review E*, **2016**, 93, 033303	2.4	30
17	Cluster size convergence of the density matrix embedding theory and its dynamical cluster formulation: A study with an auxiliary-field quantum Monte Carlo solver. *Physical Review B*, **2017**, 95,	3.3	28
16	Ground-State Properties of the Hydrogen Chain: Dimerization, Insulator-to-Metal Transition, and Magnetic Phases. *Physical Review X*, **2020**, 10,	9.1	24
15	Coupling quantum Monte Carlo and independent-particle calculations: Self-consistent constraint for the sign problem based on the density or the density matrix. *Physical Review B*, **2016**, 94,	3.3	24
14	Finite-temperature auxiliary-field quantum Monte Carlo: Self-consistent constraint and systematic approach to low temperatures. *Physical Review B*, **2019**, 99,	3.3	18
13	Rashba Spin-Orbit Coupling, Strong Interactions, and the BCS-BEC Crossover in the Ground State of the Two-Dimensional Fermi Gas. *Physical Review Letters*, **2016**, 117, 040401	7.4	13
12	Many-body computations by stochastic sampling in Hartree-Fock-Bogoliubov space. *Physical Review B*, **2017**, 95,	3.3	13
11	Ultracold Atoms in a Square Lattice with Spin-Orbit Coupling: Charge Order, Superfluidity, and Topological Signatures. *Physical Review Letters*, **2017**, 119, 265301	7.4	13
10	Metal-insulator transition in the ground state of the three-band Hubbard model at half filling. *Physical Review B*, **2019**, 99,	3.3	9

9	Reaching the Continuum Limit in Finite-Temperature Ab Initio Field-Theory Computations in Many-Fermion Systems. *Physical Review Letters*, **2019**, 123, 136402	7.4	8
8	Some recent developments in auxiliary-field quantum Monte Carlo for real materials. *Journal of Chemical Physics*, **2021**, 154, 024107	3.9	7
7	Magnetic orders in the hole-doped three-band Hubbard model: Spin spirals, nematicity, and ferromagnetic domain walls. *Physical Review B*, **2018**, 97,	3.3	6
6	Accurate computations of Rashba spin-orbit coupling in interacting systems: From the Fermi gas to real materials. *Journal of Physics and Chemistry of Solids*, **2019**, 128, 161-168	3.9	6
5	Response Functions for the Two-Dimensional Ultracold Fermi Gas: Dynamical BCS Theory and Beyond. *Journal of Low Temperature Physics*, **2017**, 189, 312-327	1.3	4
4	Auxiliary field quantum Monte Carlo for multiband Hubbard models: Controlling the sign and phase problems to capture Hund's physics. *Physical Review B*, **2019**, 99,	3.3	4
3	Metal-insulator and magnetic phase diagram of Ca2RuO4 from auxiliary field quantum Monte Carlo and dynamical mean field theory. *Physical Review B*, **2020**, 101,	3.3	2
2	Pseudo-BCS wave function from density matrix decomposition: Application in auxiliary-field quantum Monte Carlo. *Physical Review Research*, **2021**, 3,	3.9	2
1	Ab initio calculations in atoms, molecules, and solids, treating spin-orbit coupling and electron interaction on an equal footing.. *Journal of Chemical Physics*, **2022**, 156, 014107	3.9	1