Yusuke Nomura

List of Publications by Year
in descending order

57	2,838	236925 25	175258 52
papers	citations	h-index	g-index

58	58	58	3046
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Wannier90 as a community code: new features and applications. Journal of Physics Condensed Matter, 2020, 32, 165902.	1.8	807
2	Restricted Boltzmann machine learning for solving strongly correlated quantum systems. Physical Review B, 2017, 96, .	3.2	198
3	First-Principles Study of the Honeycomb-Lattice Iridates<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Na</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ the Presence of Strong Spin-Orbit Interaction and Electron Correlations. Physical Review Letters,	7.8	197
4	Formation of a two-dimensional single-component correlated electron system and band engineering in the nickelate superconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>NdNiO</mml:mi><mml:mn>2</mml:mn></mml:msub></ Physical Review B, 2019, 100, .	3.2	161
5	First-principles study of the pressure and crystal-structure dependences of the superconducting transition temperature in compressed sulfur hydrides. Physical Review B, 2015, 91, .	3.2	141
6	Constructing exact representations of quantum many-body systems with deep neural networks. Nature Communications, 2018, 9, 5322.	12.8	111
7	Unified understanding of superconductivity and Mott transition in alkali-doped fullerides from first principles. Science Advances, 2015, 1, e1500568.	10.3	90
8	Ab initioderivation of electronic low-energy models for C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>60</mml:mn></mml:msub></mml:math>and aromatic compounds. Physical Review B, 2012, 85, .	3.2	83
9	Correlation effects in (111) bilayers of perovskite transition-metal oxides. Physical Review B, 2014, 89, .	3.2	63
10	Materials design of dynamically stable <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi>d</mml:mi><mml:mn>9</mml:mn></mml:msup></ layered nickelates. Physical Review B, 2020, 101, .	3.2	62
11	Effective on-site interaction for dynamical mean-field theory. Physical Review B, 2012, 86, .	3.2	60
12	Dirac-Type Nodal Spin Liquid Revealed by Refined Quantum Many-Body Solver Using Neural-Network Wave Function, Correlation Ratio, and Level Spectroscopy. Physical Review X, 2021, 11, .	8.9	60
13	Exotics-wave superconductivity in alkali-doped fullerides. Journal of Physics Condensed Matter, 2016, 28, 153001.	1.8	46
14	Ï€-electron Sâ€‰=â€‰Â½ quantum spin-liquid state in an ionic polyaromatic hydrocarbon. Nature Chemistry, 2017, 9, 635-643.	13.6	46
15	Mechanism of Enhanced Optical Second-Harmonic Generation in the Conducting Pyrochlore-Type<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Pb</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Ir</mml:mi><mml:m mathvariant="bold">O</mml:mi><mml:mrow><mml:mn>7</mml:mn><mml:mtext mathvariant="bold">â€“</mml:mtext><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Oxide Compound. Physical Review Letters, 2013, 110, 187402.	7.8	44
16	Superconductivity in infinite-layer nickelates. Reports on Progress in Physics, 2022, 85, 052501.	20.1	43
17	Stripe and superconducting order competing in the Hubbard model on a square lattice studied by a combined variational Monte Carlo and tensor network method. Physical Review B, 2018, 98, .	3.2	41
18	RESPACK: An ab initio tool for derivation of effective low-energy model of material. Computer Physics Communications, 2021, 261, 107781.	7.5	40

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19	Enhancing superconductivity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>A</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>60</mml:mn></mml:msub></mml:mrow></mml:math>fullerides. Physical Review B, 2016, 94, .	3.2	39
20	Helping restricted Boltzmann machines with quantum-state representation by restoring symmetry. Journal of Physics Condensed Matter, 2021, 33, 174003.	1.8	38
21	Ab initiodownfolding for electron-phonon-coupled systems: Constrained density-functional perturbation theory. Physical Review B, 2015, 92, .	3.2	37
22	Ab initio<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:m cumulant calculation for isolated band systems: Application to organic conductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi) Tj ETQq Physical Review B, 2016, 93, .	3.2	36
23	Magnetic exchange coupling in cuprate-analog <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi>d</mml:mi><mml:mn>9</mml:mn></mml:msup></mml:m nickelates. Physical Review Research, 2020, 2, .	3.6	32
24	Long-range orders and spin/orbital freezing in the two-band Hubbard model. Physical Review B, 2016, 94, .	3.2	26
25	Multiorbital cluster dynamical mean-field theory with an improved continuous-time quantum Monte Carlo algorithm. Physical Review B, 2014, 89, .	3.2	25
26	Negative sign problem in continuous-time quantum Monte Carlo: Optimal choice of single-particle basis for impurity problems. Physical Review B, 2015, 92, .	3.2	24
27	Nonlocal correlations induced by Hund's coupling: A cluster DMFT study. Physical Review B, 2015, 91, .	3.2	24
28	Higgs-mode resonance in third harmonic generation in NbN superconductors: Multiband electron-phonon coupling, impurity scattering, and polarization-angle dependence. Physical Review Research, 2020, 2, .	3.6	24
29	Nonempirical Calculation of Superconducting Transition Temperatures in Lightâ€Element Superconductors. Advanced Materials, 2017, 29, 1602421.	21.0	22
30	Effect of Electron-Phonon Interactions on Orbital Fluctuations in Iron-Based Superconductors. Physical Review Letters, 2014, 112, 027002.	7.8	19
31	Efficient ab initio Migdal-Eliashberg calculation considering the retardation effect in phonon-mediated superconductors. Physical Review B, 2020, 102, .	3.2	19
32	qeirreps: An open-source program for Quantum ESPRESSO to compute irreducible representations of Bloch wavefunctions. Computer Physics Communications, 2021, 264, 107948.	7.5	17
33	Double-expansion impurity solver for multiorbital models with dynamically screened<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>U</mml:mi></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>J</mml:mi></mml:math>. Physical Review B, 2015, 92, .	3.2	15
34	Self-optimized superconductivity attainable by interlayer phase separation at cuprate interfaces. Science Advances, 2016, 2, e1600664.	10.3	14
35	Strong-coupling formula for momentum-dependent susceptibilities in dynamical mean-field theory. Physical Review B, 2019, 99, .	3.2	14
36	Hidden fermionic excitation in the superconductivity of the strongly attractive Hubbard model. Physical Review B, 2015, 92, .	3.2	13

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37	Machine Learning Quantum States â€" Extensions to Fermionâ€"Boson Coupled Systems and Excited-State Calculations. Journal of the Physical Society of Japan, 2020, 89, 054706.	1.6	13
38	Purifying Deep Boltzmann Machines for Thermal Quantum States. Physical Review Letters, 2021, 127, 060601.	7.8	12
39	Local strain and anharmonicity in the bonding of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>Bi</mml:mtext><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mtext>Se</mml:mtext><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math> topological insulators. Physical Review B, 2013, 88, .	3.2	11
40	Ab initio derivation of low-energy Hamiltonians for systems with strong spin-orbit interaction: Application to Ca5Ir3O12. Physical Review B, 2021, 104, .	3.2	11
41	Orbital Isotropy of Magnetic Fluctuations in Correlated Electron Materials Induced by Hundâ€™s Exchange Coupling. Physical Review Letters, 2021, 127, 207205.	7.8	11
42	Polar Antiferromagnets Produced with Orbital Order. Physical Review Letters, 2012, 108, 157603.	7.8	10
43	Geometrical Hall effect and momentum-space Berry curvature from spin-reversed band pairs. Physical Review B, 2021, 103, .	3.2	8
44	Ab initio derivation of an effective Hamiltonian for the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">La</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">CuO</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:msub><mml:mi mathvariant="normal">La</mml:mi><mml:mrow><mml:mn>1.55</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">Sr</mml:mi><mml:mrow><mml:mn>0.45</mml:mn></mml:mrow></mml:msub><mml:m.	3.2	7
45	Ab Initio Downfolding Based on the GW Approximation for Infinite-Layer Nickelates. Frontiers in Physics, 2022, 10, .	2.1	6
46	Fermi Surface Expansion above Critical Temperature in a Hund Ferromagnet. Physical Review Letters, 2022, 128, .	7.8	5
47	Efficient implementation of the continuous-time interaction-expansion quantum Monte Carlo method. Computer Physics Communications, 2020, 252, 106826.	7.5	4
48	Electronic Phase Separation and Dramatic Inverse Band Renormalization in the Mixed-Valence Cuprate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>LiCu</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:m. Physical Review Letters, 2017, 118, 176404.	7.8	3
49	Fully filling-controlled pyrochlore ruthenates: Emergent ferromagnetic-metal state and geometrical Hall effect. Physical Review B, 2021, 103, .	3.2	2
50	Magnetic structures and electronic properties of cubic-pyrochlore ruthenates from first principles. Journal of Physics Condensed Matter, 2022, 34, 194003.	1.8	2
51	Conductivity and incommensurate antiferromagnetism of Fe _{1.02} Se _{0.10} Te _{0.90} under pressure. Europhysics Letters, 2012, 98, 37002.	2.0	1
52	Investigating Network Parameters in Neural-Network Quantum States. Journal of the Physical Society of Japan, 2022, 91, .	1.6	1
53	Electronâ€"Phonon Interactions and Orbital Fluctuations in Iron-based Superconductors. , 2014, , .		0
54	Methods: Ab Initio Downfolding and Model-Calculation Techniques. Springer Theses, 2016, , 31-100.	0.1	0

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55	Application of cDFPT to Alkali-Doped Fullerides. Springer Theses, 2016, , 101-117.	0.1	0
56	Analysis of Low-Energy Hamiltonians with Extended DMFT. Springer Theses, 2016, , 119-135.	0.1	0
57	Introduction to Superconductivity in Alkali-Doped Fullerides. Springer Theses, 2016, , 1-29.	0.1	0