

Giuseppe Carleo

List of Publications by Year in descending order

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5,581
citations

201575

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44
all docs

44
docs citations

44
times ranked

4250
citing authors

#	ARTICLE	IF	CITATIONS
1	Nuclei with Up to $A=6$ Nucleons with Artificial Neural Network Wave Functions. Few-Body Systems, 2022, 63, 1.	0.7	13
2	Role of stochastic noise and generalization error in the time propagation of neural-network quantum states. SciPost Physics, 2022, 12, .	1.5	9
3	Neural-network quantum states for periodic systems in continuous space. Physical Review Research, 2022, 4, .	1.3	18
4	Quantum Simulators: Architectures and Opportunities. PRX Quantum, 2021, 2, .	3.5	229
5	Classical variational simulation of the Quantum Approximate Optimization Algorithm. Npj Quantum Information, 2021, 7, .	2.8	42
6	Variational Monte Carlo Calculations of $A=4$ Nuclei with an Artificial Neural-Network Correlator Ansatz. Physical Review Letters, 2021, 127, 022502.	2.9	37
7	Natural evolution strategies and variational Monte Carlo. Machine Learning: Science and Technology, 2021, 2, 02LT01.	2.4	12
8	Broken-Symmetry Ground States of the Heisenberg Model on the Pyrochlore Lattice. Physical Review X, 2021, 11, .	2.8	40
9	Unbiased Monte Carlo cluster updates with autoregressive neural networks. Physical Review Research, 2021, 3, .	1.3	20
10	Gauge Equivariant Neural Networks for Quantum Lattice Gauge Theories. Physical Review Letters, 2021, 127, 276402.	2.9	14
11	Deep Learning the Hohenberg-Kohn Maps of Density Functional Theory. Physical Review Letters, 2020, 125, 076402.	2.9	38
12	Phases of two-dimensional spinless lattice fermions with first-quantized deep neural-network quantum states. Physical Review B, 2020, 102, .	1.1	25
13	Fermionic neural-network states for ab-initio electronic structure. Nature Communications, 2020, 11, 2368.	5.8	121
14	Deep Autoregressive Models for the Efficient Variational Simulation of Many-Body Quantum Systems. Physical Review Letters, 2020, 124, 020503.	2.9	117
15	Precise measurement of quantum observables with neural-network estimators. Physical Review Research, 2020, 2, .	1.3	53
16	Neural-Network Approach to Dissipative Quantum Many-Body Dynamics. Physical Review Letters, 2019, 122, 250502.	2.9	161
17	NetKet: A machine learning toolkit for many-body quantum systems. SoftwareX, 2019, 10, 100311.	1.2	65
18	Two-dimensional frustrated J_1 - J_2 model studied with neural network quantum states. Physical Review B, 2019, 100, .	1.1	104

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19	Restricted Boltzmann machines in quantum physics. <i>Nature Physics</i> , 2019, 15, 887-892.	6.5	117
20	Ground state phase diagram of the one-dimensional Bose-Hubbard model from restricted Boltzmann machines. <i>Journal of Physics: Conference Series</i> , 2019, 1290, 012005.	0.3	11
21	Machine learning and the physical sciences. <i>Reviews of Modern Physics</i> , 2019, 91, .	16.4	1,245
22	Neural-network quantum state tomography. <i>Nature Physics</i> , 2018, 14, 447-450.	6.5	521
23	Constructing exact representations of quantum many-body systems with deep neural networks. <i>Nature Communications</i> , 2018, 9, 5322.	5.8	111
24	Symmetries and Many-Body Excitations with Neural-Network Quantum States. <i>Physical Review Letters</i> , 2018, 121, 167204.	2.9	127
25	Universal scaling laws for correlation spreading in quantum systems with short- and long-range interactions. <i>Physical Review B</i> , 2018, 98, .	1.1	48
26	Learning hard quantum distributions with variational autoencoders. <i>Npj Quantum Information</i> , 2018, 4, .	2.8	49
27	Solving the quantum many-body problem with artificial neural networks. <i>Science</i> , 2017, 355, 602-606.	6.0	1,307
28	Nonstoquastic Hamiltonians and quantum annealing of an Ising spin glass. <i>Physical Review B</i> , 2017, 95, .	1.1	69
29	Unitary Dynamics of Strongly Interacting Bose Gases with the Time-Dependent Variational Monte Carlo Method in Continuous Space. <i>Physical Review X</i> , 2017, 7, .	2.8	16
30	Spreading of correlations in exactly solvable quantum models with long-range interactions in arbitrary dimensions. <i>New Journal of Physics</i> , 2016, 18, 093002.	1.2	44
31	Mott transition for strongly interacting one-dimensional bosons in a shallow periodic potential. <i>Physical Review A</i> , 2016, 93, .	1.0	47
32	Protected quasilocalty in quantum systems with long-range interactions. <i>Physical Review A</i> , 2015, 92, .	1.0	58
33	Light-cone effect and supersonic correlations in one- and two-dimensional bosonic superfluids. <i>Physical Review A</i> , 2014, 89, .	1.0	90
34	Quench-Induced Breathing Mode of One-Dimensional Bose Gases. <i>Physical Review Letters</i> , 2014, 113, 035301.	2.9	64
35	Universal Superfluid Transition and Transport Properties of Two-Dimensional Dirty Bosons. <i>Physical Review Letters</i> , 2013, 111, 050406.	2.9	30
36	Localization and Glassy Dynamics Of Many-Body Quantum Systems. <i>Scientific Reports</i> , 2012, 2, 243.	1.6	145

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37	Itinerant ferromagnetic phase of the Hubbard model. Physical Review B, 2011, 83, .	1.1	26
38	Reptation quantum Monte Carlo algorithm for lattice Hamiltonians with a directed-update scheme. Physical Review E, 2010, 82, 046710.	0.8	13
39	Bose-Einstein Condensation in Quantum Glasses. Physical Review Letters, 2009, 103, 215302.	2.9	21
40	Zero-temperature dynamics of solid H from quantum Monte Carlo simulations. Physical Review B, 2009, 80, .	1.1	8
41	An efficient quantum algorithm for the time evolution of parameterized circuits. Quantum - the Open Journal for Quantum Science, 0, 5, 512.	0.0	55
42	Quantum Natural Gradient. Quantum - the Open Journal for Quantum Science, 0, 4, 269.	0.0	200
43	Simultaneous Perturbation Stochastic Approximation of the Quantum Fisher Information. Quantum - the Open Journal for Quantum Science, 0, 5, 567.	0.0	38