

Calvin Johnson

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,151
citations

516710

16
h-index

377865

34
g-index

50
all docs

50
docs citations

50
times ranked

485
citing authors

#	ARTICLE	IF	CITATIONS
1	Monte Carlo evaluation of path integrals for the nuclear shell model. <i>Physical Review C</i> , 1993, 48, 1518-1545.	2.9	214
2	Orderly Spectra from Random Interactions. <i>Physical Review Letters</i> , 1998, 80, 2749-2753.	7.8	155
3	Weak-interaction rates in ^{16}O . <i>Physical Review Letters</i> , 1990, 65, 1325-1328.	7.8	110
4	Generalized seniority from random Hamiltonians. <i>Physical Review C</i> , 1999, 61, .	2.9	72
5	Factorization in large-scale many-body calculations. <i>Computer Physics Communications</i> , 2013, 184, 2761-2774.	7.5	66
6	Demonstration of the auxiliary-field Monte Carlo approach for shell nuclei. <i>Physical Review C</i> , 1994, 49, 1422-1427.	2.9	63
7	Entanglement and collective flavor oscillations in a dense neutrino gas. <i>Physical Review D</i> , 2019, 100, .	4.7	39
8	White paper: from bound states to the continuum. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2020, 47, 123001.	3.6	38
9	Spin structure of many-body systems with two-body random interactions. <i>Physical Review C</i> , 2000, 63, .	2.9	31
10	Random phase approximation vs exact shell-model correlation energies. <i>Physical Review C</i> , 2002, 66, .	2.9	28
11	Systematics of strength function sum rules. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 750, 72-75.	4.1	28
12	Lipkin model on a quantum computer. <i>Physical Review C</i> , 2021, 104, .	2.9	28
13	Gamow-Teller transitions and deformation in the proton-neutron random phase approximation. <i>Physical Review C</i> , 2004, 69, .	2.9	25
14	Spin-orbit decomposition of <i>ab initio</i> nuclear wave functions. <i>Physical Review C</i> , 2015, 91, .	2.9	20
15	SU(3) symmetry breaking in lower shell nuclei. <i>Physical Review C</i> , 2000, 63, .	2.9	19
16	Benchmark calculation of inclusive electromagnetic responses in the four-body nuclear system. <i>Nuclear Physics A</i> , 2007, 785, 307-321.	1.5	17
17	ELECTROMAGNETIC TRANSITIONS WITH EFFECTIVE OPERATORS. <i>International Journal of Modern Physics E</i> , 2005, 14, 95-103.	1.0	16
18	Collective neutrino oscillations with tensor networks using a time-dependent variational principle. <i>Physical Review D</i> , 2022, 105, .	4.7	16

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19	Unified theory of fermion pair to boson mappings in full and truncated spaces. <i>Physical Review C</i> , 1995, 51, 1861-1872.	2.9	15
20	Projection of angular momentum via linear algebra. <i>Physical Review C</i> , 2017, 96, .	2.9	15
21	Union of rotational and vibrational modes in generator-coordinate-type calculations, with application to neutrinoless double- β decay. <i>Physical Review C</i> , 2019, 100, .	2.9	14
22	Uncertainty quantification of an empirical shell-model interaction using principal component analysis. <i>Physical Review C</i> , 2020, 101, .	2.9	13
23	Comparison of Gamow-Teller strengths in the random phase approximation. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2013, 40, 065202.	3.6	11
24	Convergence and efficiency of angular momentum projection. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2019, 46, 015101.	3.6	10
25	From deformed Hartree-Fock to the nucleon-pair approximation. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020, 809, 135705.	4.1	10
26	Transition sum rules in the shell model. <i>Physical Review C</i> , 2018, 97, .	2.9	9
27	Hermitian boson mapping and finite truncation. <i>Physical Review C</i> , 1994, 50, R571-R575.	2.9	6
28	Quasidynamical symmetries in the backbending of chromium isotopes. <i>Physical Review C</i> , 2017, 95, .	2.9	6
29	Nucleon-pair approximation for nuclei from spherical to deformed regions. <i>Physical Review C</i> , 2021, 104, .	2.9	6
30	Modified Brink-Axel hypothesis for astrophysical Gamow-Teller transitions. <i>Physical Review C</i> , 2022, 105, .	2.9	6
31	Unmixing Symmetries. <i>Physical Review Letters</i> , 2020, 124, 172502.	7.8	5
32	Nucleon-pair coupling scheme in Elliott's SU(3) model. <i>Physical Review C</i> , 2021, 103, .	2.9	5
33	Benchmarking angular-momentum projected Hartree-Fock as an approximation. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2021, 48, 095107.	3.6	5
34	Model space truncation in shell-model fits. <i>Physical Review C</i> , 2009, 80, .	2.9	4
35	How effective is the Brink-Axel hypothesis for astrophysical weak rates?. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2022, 49, 065201.	3.6	4
36	Sensitivity analysis of random two-body interactions. <i>Physical Review C</i> , 2010, 81, .	2.9	3

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37	Testing the spin-cutoff parametrization with shell-model calculations. <i>Physical Review C</i> , 2014, 90, .	2.9	3
38	No-core shell model calculations of the photonuclear cross section of ^{10}B . <i>European Physical Journal A</i> , 2019, 55, 1.	2.5	3
39	Tensor force role in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi}> \hat{I}^2 \langle \text{mml:mi}> \langle \text{mml:math}>$ decays analyzed within the Gogny-interaction shell model. <i>Physical Review C</i> , 2021, 103, .	2.9	3
40	Exact sum rules with approximate ground states. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2020, 47, 105107.	3.6	3
41	Nuclear states projected from a pair condensate. <i>Physical Review C</i> , 2022, 105, .	2.9	3
42	Rotational bands beyond the Elliott model. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2021, 48, 075102.	3.6	2
43	SHORTCUTS TO NUCLEAR STRUCTURE: LESSONS IN HARTREEâ€FOCK, RPA, AND THE NO-CORE SHELL MODEL. <i>International Journal of Modern Physics E</i> , 2005, 14, 57-65.	1.0	1
44	A Locality-Based Threading Algorithm for the Configuration-Interaction Method. , 2017, , .		1
45	Order out of chaos in the shell model. <i>AIP Conference Proceedings</i> , 2000, , .	0.4	0
46	RPA CORRELATIONS AND RESTORATION OF SYMMETRIES IN $\langle \text{font}> \text{SD} \langle \text{font}>$ SHELL NUCLEI. , 2002, , .		0
47	A statistical spectroscopy approach for calculating nuclear level densities. <i>European Physical Journal A</i> , 2005, 25, 673-674.	2.5	0
48	The origin of order in random matrices with symmetries. , 2012, , .		0
49	COLLECTIVITY, CHAOS, AND COMPUTERS. , 2004, , .		0
50	OBLIQUE-BASIS CALCULATIONS FOR ^{44}Ti . , 2004, , .		0