

D J Dean

List of Publications by Year in descending order

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128
papers

5,367
citations

76326

40
h-index

79698

73
g-index

129
all docs

129
docs citations

129
times ranked

2609
citing authors

#	ARTICLE	IF	CITATIONS
1	Pairing in nuclear systems: from neutron stars to finite nuclei. <i>Reviews of Modern Physics</i> , 2003, 75, 607-656.	45.6	391
2	Coupled-cluster computations of atomic nuclei. <i>Reports on Progress in Physics</i> , 2014, 77, 096302.	20.1	368
3	Shape coexistence and the effective nucleon-nucleon interaction. <i>Physical Review C</i> , 1999, 60, .	2.9	316
4	Cloud Quantum Computing of an Atomic Nucleus. <i>Physical Review Letters</i> , 2018, 120, 210501.	7.8	269
5	Electron Capture Rates on Nuclei and Implications for Stellar Core Collapse. <i>Physical Review Letters</i> , 2003, 90, 241102.	7.8	240
6	Consequences of Nuclear Electron Capture in Core Collapse Supernovae. <i>Physical Review Letters</i> , 2003, 91, 201102.	7.8	198
7	<i>Ab initio</i> coupled-cluster approach to nuclear structure with modern nucleon-nucleon interactions. <i>Physical Review C</i> , 2010, 82, .	2.9	183
8	Orderly Spectra from Random Interactions. <i>Physical Review Letters</i> , 1998, 80, 2749-2753.	7.8	155
9	Coupled-cluster theory for three-body Hamiltonians. <i>Physical Review C</i> , 2007, 76, .	2.9	147
10	Medium-Mass Nuclei from Chiral Nucleon-Nucleon Interactions. <i>Physical Review Letters</i> , 2008, 101, 092502.	7.8	147
11	Rotational Bands in the Doubly Magic Nucleus $N=56$. <i>Physical Review Letters</i> , 1999, 82, 3763-3766.	7.8	139
12	Practical solution to the Monte Carlo sign problem: Realistic calculations of ^{54}Fe . <i>Physical Review Letters</i> , 1994, 72, 613-616.	7.8	134
13	Shell-model Monte Carlo studies of p -shell nuclei. <i>Physical Review C</i> , 1995, 52, 718-725.	2.9	125
14	Coupled-cluster approach to nuclear physics. <i>Physical Review C</i> , 2004, 69, .	2.9	122
15	Coupled Cluster Calculations of Ground and Excited States of Nuclei. <i>Physical Review Letters</i> , 2004, 92, 132501.	7.8	119
16	<i>Ab-Initio</i> Coupled-Cluster Study of ^{16}O . <i>Physical Review Letters</i> , 2005, 94, 212501.	7.8	100
17	Origin of the Anomalous Long Lifetime of ^{14}C . <i>Physical Review Letters</i> , 2011, 106, 202502.	7.8	95
18	How magic is the magic ^{68}Ni nucleus?. <i>Physical Review C</i> , 2003, 67, .	2.9	93

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19	Unblocking of the Gamow-Teller strength in stellar electron capture on neutron-rich germanium isotopes. <i>Physical Review C</i> , 2001, 63, .	2.9	84
20	Benchmark calculations for ^3H , ^4He , ^{16}O , and ^{40}Ca with ab initio coupled-cluster theory. <i>Physical Review C</i> , 2007, 76, .	2.9	83
21	Quadrupole Deformation of the Self-Conjugate Nucleus ^{72}Kr . <i>Physical Review Letters</i> , 2005, 95, 022502.	7.8	80
22	Solution of the Center-Of-Mass Problem in Nuclear Structure Calculations. <i>Physical Review Letters</i> , 2009, 103, 062503.	7.8	78
23	Generalized seniority from random Hamiltonians. <i>Physical Review C</i> , 1999, 61, .	2.9	72
24	Shell-model Monte Carlo studies of neutron-rich nuclei in the $1s^{\sim}0d^{\sim}1p^{\sim}0$ shells. <i>Physical Review C</i> , 1999, 59, 2474-2486.	2.9	64
25	Coupled-cluster calculations for valence systems around ^{16}O . <i>Physical Review C</i> , 2006, 74, .	2.9	64
26	Demonstration of the auxiliary-field Monte Carlo approach for sd-shell nuclei. <i>Physical Review C</i> , 1994, 49, 1422-1427.	2.9	63
27	Electron capture on iron group nuclei. <i>Physical Review C</i> , 1998, 58, 536-544.	2.9	63
28	Thermal Properties of ^{54}Fe . <i>Physical Review Letters</i> , 1995, 74, 2909-2912.	7.8	61
29	Nuclear theory and science of the facility for rare isotope beams. <i>Modern Physics Letters A</i> , 2014, 29, 1430010.	1.2	57
30	Effective interactions and the nuclear shell-model. <i>Progress in Particle and Nuclear Physics</i> , 2004, 53, 419-500.	14.4	56
31	Competition of Electron Capture and Beta- Δ Decay Rates in Supernova Collapse. <i>Astrophysical Journal, Supplement Series</i> , 2000, 126, 493-499.	7.7	55
32	Ab initio computation of neutron-rich oxygen isotopes. <i>Physical Review C</i> , 2009, 80, .	2.9	54
33	Neutral-current neutrino-nucleus cross sections for nuclei. <i>Nuclear Physics A</i> , 2005, 747, 87-108.	1.5	52
34	Nuclear Hartree-Fock calculations with splines. <i>Physical Review C</i> , 1991, 44, 2512-2521.	2.9	49
35	Single-neutron excitations in neutron-rich ^{83}Ge and ^{85}Se . <i>Physical Review C</i> , 2007, 76, .	2.9	47
36	Gamow-Teller strength distributions in fp-shell nuclei. <i>Physical Review C</i> , 1997, 56, 3079-3086.	2.9	45

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37	BB intermeson potentials in the quark model. <i>Physical Review C</i> , 1999, 60, .	2.9	43
38	Shell model Monte Carlo studies of nuclei in the $A \approx 1480$ mass region. <i>Nuclear Physics A</i> , 2003, 728, 109-117.	1.5	41
39	Computational chemistry for molecular electronics. <i>Computational Materials Science</i> , 2003, 28, 321-341.	3.0	41
40	Shell Model Monte Carlo Studies of \hat{f}^3 -Soft Nuclei. <i>Physical Review Letters</i> , 1996, 77, 1444-1447.	7.8	40
41	RESULTS FROM SHELL-MODEL MONTE CARLO STUDIES. <i>Annual Review of Nuclear and Particle Science</i> , 1997, 47, 463-504.	10.2	36
42	Temperature dependence of pair correlations in nuclei in the iron region. <i>Nuclear Physics A</i> , 1996, 602, 244-262.	1.5	30
43	Shell model Monte Carlo investigation of rare earth nuclei. <i>Physical Review C</i> , 2000, 61, .	2.9	29
44	Density matrix renormalization group study of critical behavior of the spin-1/2 alternating Heisenberg chain. <i>Physical Review B</i> , 2003, 68, .	3.2	29
45	Complete $0^+ \rightarrow 0^+$ calculations of Gamow-Teller strengths for nuclei in the iron region. <i>Physical Review Letters</i> , 1994, 72, 4066-4069.	7.8	28
46	Shell Model Monte Carlo Method for Two-Neutrino Double Beta Decay. <i>Physical Review Letters</i> , 1996, 76, 2642-2645.	7.8	27
47	Temperature dependence of the symmetry energy. <i>Physical Review C</i> , 2002, 66, .	2.9	27
48	Interaction between benzenedithiolate and gold: Classical force field for chemical bonding. <i>Journal of Chemical Physics</i> , 2005, 122, 244721.	3.0	27
49	NWChem for materials science. <i>Computational Materials Science</i> , 2003, 28, 209-221.	3.0	25
50	Factorization of shell-model ground states. <i>Physical Review C</i> , 2003, 67, .	2.9	25
51	Gamow-Teller distributions in nuclei with mass $A=90 \sim 97$. <i>Physical Review C</i> , 2005, 72, .	2.9	25
52	Solution of large scale nuclear structure problems by wave function factorization. <i>Physical Review C</i> , 2004, 69, .	2.9	22
53	Density matrix renormalization group and wavefunction factorization for nuclei. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2005, 31, S1377-S1383.	3.6	22
54	Thermal properties of isotones. <i>Nuclear Physics A</i> , 2005, 757, 360-372.	1.5	21

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55	Breakup of the doubly magic ^{100}Sn core. <i>Physical Review C</i> , 2002, 66, .	2.9	20
56	Shell-model Monte Carlo simulations of the BCS-BEC crossover in few-fermion systems. <i>Physical Review A</i> , 2009, 80, .	2.5	20
57	Computation of spectroscopic factors with the coupled-cluster method. <i>Physical Review C</i> , 2010, 82, .	2.9	18
58	Pairing Reentrance Phenomenon in Heated Rotating Nuclei in the Shell-Model Monte Carlo Approach. <i>Physical Review Letters</i> , 2010, 105, 212504.	7.8	18
59	Shell model Monte Carlo method in the pn-formalism and applications to the Zr and Mo isotopes. <i>Physical Review C</i> , 2006, 73, .	2.9	17
60	Parity-projected shell model Monte Carlo level densities for fp-shell nuclei. <i>Physical Review C</i> , 2007, 75, .	2.9	17
61	Nuclear Structure Calculations with Coupled Cluster Methods from Quantum Chemistry. <i>Nuclear Physics A</i> , 2005, 752, 299-308.	1.5	16
62	High-spin intruder states in the fp-shell nuclei and isoscalar proton-neutron correlations. <i>Physical Review C</i> , 2006, 73, .	2.9	15
63	The importance of advancing technology to America's energy goals. <i>Energy Policy</i> , 2010, 38, 3886-3890.	8.8	15
64	^{100}Sn core excitations in ^{102}In . <i>Physical Review C</i> , 2002, 65, .	2.9	14
65	Comment on "Ab Initio Study of ^{40}Ca with an Importance-Truncated No-Core Shell Model". <i>Physical Review Letters</i> , 2008, 101, 119201; author reply 119202.	7.8	14
66	Pairing correlations and transitions in nuclear systems. <i>Nuclear Physics A</i> , 2004, 731, 381-391.	1.5	13
67	Correlations and effective interactions in nuclear matter. <i>Physical Review C</i> , 2006, 74, .	2.9	13
68	Multiparticle production in lepton-nucleus collisions and relativistic string models. <i>Physical Review C</i> , 1992, 46, 2066-2076.	2.9	12
69	Excited states of the proton emitter ^{105}Sb . <i>Physical Review C</i> , 2002, 65, .	2.9	11
70	First observation of $^{109}\text{Te}^{2+}$ and electron capture decay to levels of ^{109}Sb . <i>Physical Review C</i> , 2002, 66, .	2.9	11
71	Identification of low-spin states in ^{111}Sb : Test of spin-orbit coupling in light nuclei. <i>Physical Review C</i> , 2005, 71, .	2.9	10
72	Calculation of exciton densities in the shell-model Monte Carlo method. <i>Physical Review C</i> , 1999, 60, .	2.9	9

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73	New level information on $Z = 51$ isotopes, $^{111}\text{Sb}60$ and $^{134, 135}\text{Sb}83, 84$. European Physical Journal A, 2005, 25, 121-122.	2.5	9
74	Dynamical string-parton model for relativistic heavy-ion collisions. Physical Review C, 1992, 45, 400-414.	2.9	8
75	Coupled-cluster calculations for ground and excited states of closed- and open-shell nuclei using methods of quantum chemistry. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1291-S1299.	3.6	8
76	Quantum dots in magnetic fields: Thermal response of broken-symmetry phases. Physical Review B, 2001, 64, .	3.2	6
77	Nuclear forces and the quantum many-body problem. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, .	3.6	6
78	Comparison of flux-correcting and spline algorithms for solving (3+1)-dimensional relativistic hydrodynamics. Physical Review E, 1994, 49, 1726-1733.	2.1	5
79	SPLINE TECHNIQUES FOR SOLVING RELATIVISTIC CONSERVATION EQUATIONS. International Journal of Modern Physics C, 1993, 04, 723-747.	1.7	4
80	Nuclear electron capture in core collapse supernovae. Nuclear Physics A, 2005, 758, 31-34.	1.5	4
81	Shell model analysis of intruder states and high- K isomers in the fp shell. European Physical Journal A, 2005, 25, 509-510.	2.5	4
82	COUPLED-CLUSTER THEORY FOR NUCLEI. International Journal of Modern Physics B, 2006, 20, 5338-5345.	2.0	4
83	Many-body interactions and nuclear structure. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 064035.	3.6	4
84	Resource Letter NSM-1: New insights into the nuclear shell model. American Journal of Physics, 2011, 79, 5-16.	0.7	4
85	Dynamical evolution of hadronic matter in relativistic collisions. Physical Review C, 1993, 48, 2433-2442.	2.9	3
86	Robust physics from random interactions. Nuclear Physics A, 2001, 682, 194-199.	1.5	3
87	Ab initio coupled cluster calculations for nuclei using methods of quantum chemistry. European Physical Journal A, 2005, 25, 485-488.	2.5	3
88	PARALLEL IMPLEMENTATION OF 3 + 1-DIMENSIONAL RELATIVISTIC HYDRODYNAMICS. International Journal of Modern Physics C, 1993, 04, 1023-1040.	1.7	2
89	Hadronic structure functions as distributions of classical strings. Physical Review C, 1999, 59, 2289-2292.	2.9	2
90	Neutrino-nucleus interactions in core-collapse supernova. Nuclear Physics A, 2003, 718, 452-454.	1.5	2

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91	Velocity dependence of prompt, high-energy nucleon emission. Physical Review C, 1989, 40, 1213-1218.	2.9	1
92	Sum rules regarding the sign problem in Monte Carlo shell model calculations. Physical Review C, 2000, 61, .	2.9	1
93	THERMAL PHASES IN FINITE QUANTUM SYSTEMS. International Journal of Modern Physics B, 2003, 17, 5093-5100.	2.0	1
94	Computational aspects of nuclear coupled-cluster theory. Computational Science & Discovery, 2008, 1, 015008.	1.5	1
95	Statistical Properties of Kawai-Kerman-McVoy T-matrix. AIP Conference Proceedings, 2008, , .	0.4	1
96	Computational Science and Innovation. Journal of Physics: Conference Series, 2011, 312, 062001.	0.4	1
97	Atomic oxygen simulation and analysis. Acta Astronautica, 1987, 15, 887-891.	3.2	0
98	A dynamical picture of hadron-hadron collisions with the String-Parton model. AIP Conference Proceedings, 1992, , .	0.4	0
99	A dynamical string-parton model for relativistic heavy-ion collisions. Nuclear Physics A, 1992, 544, 475-478.	1.5	0
100	Monte Carlo Zugang zum Kernschalenmodell. Physik Journal, 1994, 50, 341-343.	0.1	0
101	Monte Carlo methods and applications for the nuclear shell model. , 1999, , .		0
102	Relativistic heavy-ion collisions in the dynamical string-parton model. Physical Review C, 2001, 63, .	2.9	0
103	Toward Coupled-Cluster Implementations In Nuclear Structure. AIP Conference Proceedings, 2003, , .	0.4	0
104	Shifted-Contour Monte Carlo Method for Nuclear Structure. AIP Conference Proceedings, 2004, , .	0.4	0
105	Terascale input physics: the role of nuclear electron capture in core collapse supernovae. Journal of Physics: Conference Series, 2005, 16, 400-404.	0.4	0
106	NEUTRINO-NUCLEUS INTERACTIONS IN CORE COLLAPSE SUPERNOVAE. , 2005, , .		0
107	Coupled-Cluster Theory For Nuclear Structure. AIP Conference Proceedings, 2005, , .	0.4	0
108	COUPLED-CLUSTER THEORY FOR NUCLEI. , 2006, , .		0

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109	The nuclear structure and low-energy reactions (NSLER) collaboration. Journal of Physics: Conference Series, 2006, 46, 166-170.	0.4	0
110	COUPLED-CLUSTER THEORY FOR NUCLEI. , 2007, , .		0
111	Understanding nuclei: progress and challenges. AIP Conference Proceedings, 2008, , .	0.4	0
112	Parity-projected shell model Monte Carlo level densities for medium-mass nuclei. , 2008, , .		0
113	Computational nuclear structure: exploring nuclei through INCITE. Journal of Physics: Conference Series, 2008, 125, 012062.	0.4	0
114	The Challenge of Energy to Science. Nuclear Physics News, 2011, 21, 3-4.	0.4	0
115	Nuclear physics in the coming decade. Journal of Physics: Conference Series, 2012, 403, 012047.	0.4	0
116	Re-entrance in nuclei: competitive phenomena. Journal of Physics: Conference Series, 2013, 445, 012029.	0.4	0
117	CALCULATING NEUTRINO-NUCLEUS INTERACTIONS. , 2001, , .		0
118	MANY-BODY CORRELATIONS IN NUCLEI AND QUANTUM DOTS. , 2002, , .		0
119	THERMAL PHASES IN FINITE QUANTUM SYSTEMS. , 2002, , .		0
120	COUPLED-CLUSTER THEORY FOR NUCLEAR SCIENCE. , 2003, , .		0
121	Intersections of Nuclear Physics and Astrophysics. EAS Publications Series, 2004, 11, 175-189.	0.3	0
122	COMPUTATIONAL CHALLENGES OF QUANTUM MANY-BODY PROBLEMS IN NUCLEAR STRUCTURE: COUPLED-CLUSTER THEORY. , 2004, , .		0
123	APPLICATION OF GROUND-STATE FACTORIZATION TO NUCLEAR STRUCTURE PROBLEMS. , 2004, , .		0
124	RIB MEASUREMENTS FOR STELLAR CORE COLLAPSE. , 2007, , .		0
125	AB-INITIO COUPLED CLUSTER THEORY FOR OPEN QUANTUM SYSTEMS. , 2008, , .		0
126	COUPLED-CLUSTER APPROACH TO AN AB-INITIO DESCRIPTION OF NUCLEI. , 2008, , .		0

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127	FROM PHYSICS TO ENERGY TO POLICY. , 2013, , .		0
128	Ab initio coupled cluster calculations for nuclei using methods of quantum chemistry. , 2005, , 485-488.		0