Christian E ForssÃ©n

List of Publications by Year
in descending order

95 papers	3,244 citations	136950 32 h-index	149698 56 g-index
96 all docs	96 docs citations	96 times ranked	1817 citing authors

#	Article	IF	Citations
1	Bayesian parameter estimation in chiral effective field theory using the Hamiltonian Monte Carlo method. Physical Review C, 2022, 105, .	2.9	8
2	Bayesian predictions for A=6 nuclei using eigenvector continuation emulators. Physical Review C, 2022, 105, .	2.9	9
3	Nuclear ab initio calculations of 6He Î²-decay for beyond the Standard Model studies. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 832, 137259.	4.1	9
4	Power counting in chiral effective field theory and nuclear binding. Physical Review C, 2021, 103, .	2.9	20
5	Normal-ordering approximations and translational (non)invariance. Physical Review C, 2021, 104, .	2.9	4
6	Systematic Nuclear Uncertainties in the Hypertriton System. Few-Body Systems, 2021, 62, 1.	1.5	7
7	Charge radii of exotic potassium isotopes challenge nuclear theory and the magic character of Nâ€‰=â€‰32. Nature Physics, 2021, 17, 439-443.	16.7	79
8	Rigorous constraints on three-nucleon forces in chiral effective field theory from fast and accurate calculations of few-body observables. Physical Review C, 2021, 104, .	2.9	36
9	Accurate bulk properties of nuclei from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>A</mml:mi><mml:mo>=</mml:mo><mml:mn>2</mml:mn> to <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>âˆž</mml:mi></mml:math> from potentials with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">Î”</mml:mi></mml:math> isobars. Physical Review C, 2020, 102, .	2.9	65
10	Finite-size effects in heavy halo nuclei from effective field theory. European Physical Journal A, 2020, 56, 1.	2.5	1
11	Bayesian optimization in ab initio nuclear physics. Journal of Physics G: Nuclear and Particle Physics, 2019, 46, 095101.	3.6	20
12	Quantifying uncertainties in nuclear matrix elements for dark matter searches. AIP Conference Proceedings, 2019, , .	0.4	0
13	Large-scale exact diagonalizations reveal low-momentum scales of nuclei. Physical Review C, 2018, 97, .	2.9	35
14	Ab initiono-core solutions for⁶Li. Journal of Physics G: Nuclear and Particle Physics, 2017, 44, 075103.	3.6	38
15	Three-Body Halo States in Effective Field Theory: Renormalization and Three-Body Interactions in the Helium-6 System. Few-Body Systems, 2017, 58, 1.	1.5	12
16	AbÂinitio nuclear response functions for dark matter searches. Physical Review D, 2017, 95, .	4.7	23
17	Experimental study of the¹⁵O(2p, Î³)¹⁷Ne cross section by Coulomb Dissociation for therpprocess. Journal of Physics: Conference Series, 2016, 665, 012046.	0.4	1
18	Uncertainty quantification for protonâ€“proton fusion in chiral effective field theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 760, 584-589.	4.1	28

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19	Uncertainty Analysis and Order-by-Order Optimization of Chiral Nuclear Interactions. Physical Review X, 2016, 6, .	8.9	107
20	Fast and Accurate Evaluation of Wigner 3j, 6j, and 9j Symbols Using Prime Factorization and Multiword Integer Arithmetic. SIAM Journal of Scientific Computing, 2016, 38, A376-A384.	2.8	50
21	Range corrections in proton halo nuclei. Annals of Physics, 2016, 367, 13-32.	2.8	15
22	Neutron and weak-charge distributions of the 48CaÂnucleus. Nature Physics, 2016, 12, 186-190.	16.7	268
23	Accurate nuclear radii and binding energies from a chiral interaction. Physical Review C, 2015, 91, .	2.9	354
24	Infrared length scale and extrapolations for the no-core shell model. Physical Review C, 2015, 91, .	2.9	57
25	Quantum magnetism in strongly interacting one-dimensional spinor Bose systems. Scientific Reports, 2015, 5, 10675.	3.3	43
26	Statistical uncertainties of a chiral interaction at next-to-next-to leading order. Journal of Physics G: Nuclear and Particle Physics, 2015, 42, 034003.	3.6	29
27	Strongly Interacting Few-Fermion Systems in a Trap. Few-Body Systems, 2015, 56, 837-844.	1.5	0
28	Tunneling theory for tunable open quantum systems of ultracold atoms in one-dimensional traps. Physical Review A, 2015, 91, .	2.5	23
29	Ab initio no core full configuration approach for light nuclei. International Journal of Modern Physics E, 2014, 23, 1461004.	1.0	2
30	Fermionization of two-component few-fermion systems in a one-dimensional harmonic trap. New Journal of Physics, 2014, 16, 063003.	2.9	79
31	Microscopic description of translationally invariant core<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>+</mml:mo><mml:mspace width="0.16em" /><mml:mi>N</mml:mi><mml:mo>+</mml:mo><mml:mi>N</mml:mi></mml:mrow></mml:math>overlap functions. Physical Review C, 2014, 89, .	2.9	23
32	Effective field theory for proton halo nuclei. Physical Review C, 2014, 89, .	2.9	50
33	Constraining low-energy proton capture on beryllium-7 through charge radius measurements. European Physical Journal A, 2014, 50, 1.	2.5	28
34	Exclusive measurements of nuclear breakup reactions of17Ne. EPJ Web of Conferences, 2014, 66, 03094.	0.3	0
35	Study of the ^{15}O$(2p,gamma)^{17}$Ne Cross Section by Coulomb Dissociation of ^{17}Ne for the rp Process of Nucleosynthesis. Acta Physica Polonica B, 2014, 45, 229.	0.8	1
36	Ab initio no core full configuration approach for light nuclei. , 2014, , .		0

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37	Living on the edge of stability, the limits of the nuclear landscape. Physica Scripta, 2013, T152, 014022.	2.5	50
38	Optimized Chiral Nucleon-Nucleon Interaction at Next-to-Next-to-Leading Order. Physical Review Letters, 2013, 110, 192502.	7.8	267
39	Systematics of 2⁺states in C isotopes from the no-core shell model. Journal of Physics G: Nuclear and Particle Physics, 2013, 40, 055105.	3.6	27
40	MEASUREMENT OF THE SPECTROSCOPIC QUADRUPOLE MOMENT FOR THE 2^{+}_{1} STATE IN 10Be: TESTING AB INITIO CALCULATIONS. , 2013, , .		0
41	Excited-state transition-rate measurements in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>18</mml:mn></mml:msup></mml:math>C. Physical Review C, 2012, 86, .	2.9	27
42	Reorientation-effect measurement of theâŒ©21+â^¥E2Ì‚â^¥21+âŒªmatrix element in10Be. Physical Review C, 2012, 86, .	2.9	26
43	Structure of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>16</mml:mn></mml:msup></mml:math>C: Testing shell model andab initioapproaches. Physical Review C, 2012, 86, .	2.9	32
44	The similarity renormalization group for three-body interactions in one dimension. European Physical Journal A, 2011, 47, 1.	2.5	5
45	The ab initio No-Core Shell Model and Light Nuclei. Few-Body Systems, 2011, 49, 11-18.	1.5	5
46	The unbound isotopes 9,10He. Nuclear Physics A, 2010, 842, 15-32.	1.5	64
47	Three-body correlations in the decay of 10He and 13Li. Nuclear Physics A, 2010, 847, 66-88.	1.5	47
48	Resonance parameters of the first1/2+state inBe9and astrophysical implications. Physical Review C, 2010, 82, .	2.9	34
49	Cross sections of light-ion reactions calculated from ab initio wave functions. , 2010, , .		0
50	Compound-nuclear reaction cross sections via Surrogate measurements. , 2010, , .		0
51	Charge radii and electromagnetic moments of Li and Be isotopes from theab initiono-core shell model. Physical Review C, 2009, 79, .	2.9	48
52	Effective-interaction approach to the many-boson problem. Physical Review A, 2009, 79, .	2.5	32
53	The Ab Initio No-core Shell Model. Few-Body Systems, 2009, 45, 111-114.	1.5	1
54	Precise branching ratios to unbound 12C states from 12N and 12B Î²-decays. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 678, 459-464.	4.1	41

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55	Properties of the 7He ground state from 8He neutron knockout. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 679, 191-196.	4.1	50
56	Lithium isotopes beyond the drip line. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 666, 430-434.	4.1	79
57	Converging sequences in theab initiono-core shell model. Physical Review C, 2008, 77, .	2.9	43
58	The<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">C</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>14</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>(<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10	2.9	51
59	Determining neutron capture cross sections via the surrogate reaction technique. Physical Review C, 2007, 75, .	2.9	42
60	Surrogate nuclear reaction methods for astrophysics. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 1075-1078.	1.4	6
61	Systematic investigation of the drip-line nuclei 11Li and 14Be and their unbound subsystems 10Li and 13Be. Nuclear Physics A, 2007, 791, 267-302.	1.5	113
62	Surrogate reactions: the Weisskopf-Ewing approximation and its limitations. , 2007, , .		1
63	Nuclear Physics from Scratch. Acta Physica Hungarica A Heavy Ion Physics, 2006, 25, 187-196.	0.4	0
64	The Surrogate Method â€" An Indirect Approach to Compound-Nucleus Reactions. Acta Physica Hungarica A Heavy Ion Physics, 2006, 25, 211-218.	0.4	0
65	Determining neutron capture cross sections with the Surrogate Reaction Technique: Measuring decay probabilities with STARS. Nuclear Physics A, 2005, 758, 126-129.	1.5	5
66	Theoretical challenges of determining low-energy neutron-capture cross sections via the Surrogate Technique. Nuclear Physics A, 2005, 758, 130-133.	1.5	4
67	Surrogate Nuclear Reactions and the origin of the heavy elements. Nuclear Physics A, 2005, 758, 86-89.	1.5	9
68	Ab initio no-core shell model calculations using realistic two- and three-body interactions. European Physical Journal A, 2005, 25, 481-484.	2.5	4
69	One-neutron knockout of 23O. European Physical Journal A, 2005, 25, 343-346.	2.5	7
70	Large basisab initioshell model investigation ofBe9andBe11. Physical Review C, 2005, 71, .	2.9	87
71	Surrogate nuclear reactions: an indirect method for determining reaction cross sections. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1687-S1690.	3.6	7
72	Structure of neutron-rich oxygen isotopes. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1629-S1632.	3.6	2

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73	Ab initio no-core shell model calculations using realistic two- and three-body interactions. , 2005, , 481-484.		0
74	One-neutron knockout of 23O. , 2005, , 343-346.		0
75	Spectroscopy of light exotic nuclei using nuclear break-up. AIP Conference Proceedings, 2004, , .	0.4	0
76	Shell Structure of the Near-Dripline NucleusO23. Physical Review Letters, 2004, 93, 062501.	7.8	78
77	Nuclear structure of light exotic nuclei from break-up reactions. Nuclear Physics A, 2004, 746, 479-482.	1.5	4
78	Hyperfine structure of heavy hydrogen-like ions. Nuclear Instruments & Methods in Physics Research B, 2003, 205, 62-65.	1.4	14
79	Nuclear and Coulomb breakup of B. Nuclear Physics A, 2003, 720, 3-19.	1.5	42
80	High-energy breakup of 8B. Nuclear Physics A, 2003, 718, 431-433.	1.5	5
81	Analytical studies of 8B electromagnetic dissociation. Nuclear Physics A, 2003, 718, 434-436.	1.5	0
82	Radiative capture and electromagnetic dissociation involving loosely bound nuclei: The8Bexample. Physical Review C, 2003, 67, .	2.9	17
83	Low-lying resonance states in 7He. , 2003, , 227-228.		0
84	Evidence for a New Low-Lying Resonance State inH7e. Physical Review Letters, 2002, 88, 102501.	7.8	67
85	Experimental evidence for the 8B ground state configuration. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 529, 36-41.	4.1	62
86	Analytical E1 strength functions of two-neutron halo nuclei: the 6He example. Nuclear Physics A, 2002, 697, 639-654.	1.5	12
87	Light exotic isotopes: recent beam developments and physics applications at ISOLDE. Nuclear Physics A, 2002, 701, 363-368.	1.5	7
88	Analytical E1 strength functions of two-neutron halo nuclei: 11Li and 14Be. Nuclear Physics A, 2002, 706, 48-60.	1.5	21
89	Analytical approach to electromagnetic processes in loosely bound nuclei: application to 8B. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 549, 79-84.	4.1	3
90	Analysis of decay data from neutron-rich nuclei. European Physical Journal A, 2001, 11, 279-284.	2.5	6

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91	Hyperfine structure of hydrogenlike thallium isotopes. Physical Review A, 2001, 64, .	2.5	102
92	A correlated background in invariant mass spectra of three-body systems. Nuclear Physics A, 2000, 673, 143-156.	1.5	16
93	Thallium hyperfine anomaly. , 2000, 127, 347-352.		15
94	New information on Î²-delayed neutron emission from 12,14Be. Nuclear Physics A, 1999, 658, 129-145.	1.5	23
95	Wave-packet continuum discretisation for nucleon-nucleon scattering predictions. Journal of Physics G: Nuclear and Particle Physics, 0, , .	3.6	2