Kai Hebeler

List of Publications by Year
in descending order

65 papers	6,878 citations	71102 41 h-index	110387 64 g-index
66 all docs	66 docs citations	66 times ranked	2913 citing authors

#	Article	IF	Citations
1	Converged <i>ab initio</i> calculations of heavy nuclei. Physical Review C, 2022, 105, .	2.9	48
2	Importance truncation for the in-medium similarity renormalization group. Physical Review C, 2022, 105, .	2.9	2
3	Excited states from eigenvector continuation: The anharmonic oscillator. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 830, 137101.	4.1	9
4	Three-nucleon forces: Implementation and applications to atomic nuclei and dense matter. Physics Reports, 2021, 890, 1-116.	25.6	57
5	Role of Chiral Two-Body Currents in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Li</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> Magnetic Properties in Light of a New Precision Measurement with the Relative Self-Absorption Technique. Physical Review Letters, 2021, 126, 102501.	7.8	10
6	In-medium similarity renormalization group with three-body operators. Physical Review C, 2021, 103, .	2.9	27
7	Neutron matter at finite temperature based on chiral effective field theory interactions. Physical Review C, 2021, 103, .	2.9	28
8	Light nuclei with semilocal momentum-space regularized chiral interactions up to third order. Physical Review C, 2021, 103, .	2.9	52
9	Constraints on the Dense Matter Equation of State and Neutron Star Properties from NICERâ€™s Massâ€“Radius Estimate of PSR J0740+6620 and Multimessenger Observations. Astrophysical Journal Letters, 2021, 918, L29.	8.3	190
10	Low-rank matrix decompositions for ab initio nuclear structure. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 821, 136623.	4.1	5
11	Natural orbitals for many-body expansion methods. Physical Review C, 2021, 103, .	2.9	20
12	Family of chiral two- plus three-nucleon interactions for accurate nuclear structure studies. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 808, 135651.	4.1	49
13	Eigenvector continuation as an efficient and accurate emulator for uncertainty quantification. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 810, 135814.	4.1	51
14	Symmetric Nuclear Matter from the Strong Interaction. Physical Review Letters, 2020, 125, 142502.	7.8	56
15	Improved many-body expansions from eigenvector continuation. Physical Review C, 2020, 101, .	2.9	28
16	Constraining the Dense Matter Equation of State with Joint Analysis of NICER and LIGO/Virgo Measurements. Astrophysical Journal Letters, 2020, 893, L21.	8.3	143
17	Towards high-order calculations of three-nucleon scattering in chiral effective field theory. European Physical Journal A, 2020, 56, 1.	2.5	52
18	Equation of State Constraints from Nuclear Physics, Neutron Star Masses, and Future Moment of Inertia Measurements. Astrophysical Journal, 2020, 901, 155.	4.5	51

#	Article	IF	Citations
19	Application of Semilocal Coordinate-Space Regularized Chiral Forces to Elastic Nd Scattering and Breakup. Few-Body Systems, 2019, 60, 1.	1.5	7
20	Probing chiral interactions up to next-to-next-to-next-to-leading order in medium-mass nuclei. Physical Review C, 2019, 100, .	2.9	35
21	Chiral Interactions up to Next-to-Next-to-Next-to-Leading Order and Nuclear Saturation. Physical Review Letters, 2019, 122, 042501.	7.8	181
22	Equation of state sensitivities when inferring neutron star and dense matter properties. Monthly Notices of the Royal Astronomical Society, 2019, 485, 5363-5376.	4.4	89
23	Few- and many-nucleon systems with semilocal coordinate-space regularized chiral two- and three-body forces. Physical Review C, 2019, 99, .	2.9	68
24	A NICER View of PSR J0030+0451: Implications for the Dense Matter Equation of State. Astrophysical Journal Letters, 2019, 887, L22.	8.3	162
25	Dense matter with eXTP. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	81
26	Few-nucleon and many-nucleon systems with semilocal coordinate-space regularized chiral nucleon-nucleon forces. Physical Review C, 2018, 98, .	2.9	59
27	Pairing in neutron matter: New uncertainty estimates and three-body forces. Physical Review C, 2017, 95, .	2.9	39
28	Weinberg eigenvalues for chiral nucleon-nucleon interactions. Physical Review C, 2017, 96, .	2.9	36
29	Saturation with chiral interactions and consequences for finite nuclei. Physical Review C, 2017, 96, .	2.9	135
30	Uncertainties in constraining low-energy constants from 3H $ eta$Î² decay. European Physical Journal A, 2017, 53, 1.	2.5	16
31	Neutron matter from chiral two- and three-nucleon calculations up to <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msup><mml:mrow><mml:mi mathvariant="normal">N</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msup><mml:mi>LO</mml:mi></mml:mrow></mml:mat Physical Review C, 2016, 94, .	2.9	120
32	Exploring<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>s</mml:mi><mml:mi>d</mml:mi></mml:mrow></mml:ma nuclei from two- and three-nucleon interactions with realistic saturation properties. Physical Review C, 2016, 93, .	2.9	81
33	Few-nucleon systems with state-of-the-art chiral nucleon-nucleon forces. Physical Review C, 2016, 93, .	2.9	106
34	Asymmetric nuclear matter based on chiral two- and three-nucleon interactions. Physical Review C, 2016, 93, .	2.9	121
35	<i>Colloquium</i>: Measuring the neutron star equation of state using x-ray timing. Reviews of Modern Physics, 2016, 88, .	45.6	234
36	Regulator artifacts in uniform matter for chiral interactions. Physical Review C, 2016, 94, .	2.9	41

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37	Unexpectedly large charge radii of neutron-rich calcium isotopes. Nature Physics, 2016, 12, 594-598.	16.7	257
38	Neutron and weak-charge distributions of the 48CaÂnucleus. Nature Physics, 2016, 12, 186-190.	16.7	268
39	Deuteron electrodisintegration with unitarily evolved potentials. Physical Review C, 2015, 92, .	2.9	12
40	To which densities is spin-polarized neutron matter a weakly interacting Fermi gas?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 744, 18-21.	4.1	17
41	Efficient calculation of chiral three-nucleon forces up to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi mathvariant="normal">N</mml:mi><mml:mn>3</mml:mn></mml:msup><mml:mtext>LO</mml:mtext></mml:math>for<i>ab initio</i>studies. Physical Review C, 2015, 91, .	2.9	74
42	Nuclear Forces and Their Impact on Neutron-Rich Nuclei and Neutron-Rich Matter. Annual Review of Nuclear and Particle Science, 2015, 65, 457-484.	10.2	177
43	Low-energy neutron-deuteron reactions with N 3 LO chiral forces. European Physical Journal A, 2014, 50, 1.	2.5	45
44	Local chiral effective field theory interactions and quantum Monte Carlo applications. Physical Review C, 2014, 90, .	2.9	186
45	Symmetry energy, neutron skin, and neutron star radius from chiral effective field theory interactions. European Physical Journal A, 2014, 50, 1.	2.5	33
46	New applications of renormalization group methods in nuclear physics. Reports on Progress in Physics, 2013, 76, 126301.	20.1	72
47	The chiral condensate in neutron matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 412-416.	4.1	16
48	EQUATION OF STATE AND NEUTRON STAR PROPERTIES CONSTRAINED BY NUCLEAR PHYSICS AND OBSERVATION. Astrophysical Journal, 2013, 773, 11.	4.5	546
49	New applications of renormalization group methods to nuclear matter. , 2013, , .		0
50	Quantum MonteÂCarlo Calculations with Chiral Effective Field Theory Interactions. Physical Review Letters, 2013, 111, 032501.	7.8	257
51	Neutron matter based on consistently evolved chiral three-nucleon interactions. Physical Review C, 2013, 87, .	2.9	28
52	Neutron matter from chiral effective field theory interactions. Physical Review C, 2013, 88, .	2.9	197
53	Neutron Matter at Next-to-Next-to-Next-to-Leading Order in Chiral Effective Field Theory. Physical Review Letters, 2013, 110, 032504.	7.8	300
54	Momentum-space evolution of chiral three-nucleon forces. Physical Review C, 2012, 85, .	2.9	61

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55	Chiral three-nucleon forces and pairing in nuclei. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 015108.	3.6	17
56	Equation-of-state dependence of the gravitational-wave signal from the ring-down phase of neutron-star mergers. Physical Review D, 2012, 86, .	4.7	197
57	Constraints on the symmetry energy and neutron skins from experiments and theory. Physical Review C, 2012, 86, .	2.9	566
58	Improved nuclear matter calculations from chiral low-momentum interactions. Physical Review C, 2011, 83, .	2.9	362
59	Chiral three-nucleon forces and neutron matter. Physical Review C, 2010, 82, .	2.9	312
60	LOWEST-ORDER CONTRIBUTIONS OF CHIRAL THREE-NUCLEON INTERACTIONS TO PAIRING PROPERTIES OF NUCLEAR GROUND STATES. Modern Physics Letters A, 2010, 25, 1989-1992.	1.2	9
61	Constraints on Neutron Star Radii Based on Chiral Effective Field Theory Interactions. Physical Review Letters, 2010, 105, 161102.	7.8	293
62	Non-empirical pairing energy functional in nuclear matter and finite nuclei. Physical Review C, 2009, 80, .	2.9	46
63	NON-EMPIRICAL ENERGY DENSITY FUNCTIONAL FOR NUCLEI: THE PAIRING PART. International Journal of Modern Physics E, 2009, 18, 2007-2008.	1.0	1
64	Neutron Matter from Low-Momentum Interactions. Progress of Theoretical Physics Supplement, 2007, 168, 639-642.	0.1	0
65	Dependence of the BCS 1S0 superfluid pairing gap on nuclear interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 648, 176-180.	4.1	34