

Alejandro Kievsky

List of Publications by Year in descending order

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224
papers

6,147
citations

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233
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233
docs citations

233
times ranked

1713
citing authors

#	ARTICLE	IF	CITATIONS
1	Benchmark test calculation of a four-nucleon bound state. <i>Physical Review C</i> , 2001, 64, .	2.9	280
2	A high-precision variational approach to three- and four-nucleon bound and zero-energy scattering states. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2008, 35, 063101.	3.6	218
3	Parameter-free effective field theory calculation for the solar proton-fusion and hep processes. <i>Physical Review C</i> , 2003, 67, .	2.9	166
4	Study of bound and scattering states in three-nucleon systems. <i>Nuclear Physics A</i> , 1994, 577, 511-527.	1.5	148
5	Transverse Asymmetry A_T from the Quasielastic $^3\text{He}(e, e')^2\text{He}$ Process and the Neutron Magnetic Form Factor. <i>Physical Review Letters</i> , 2000, 85, 2900-2904.	7.8	144
6	The three-nucleon bound state with realistic soft- and hard-core potentials. <i>Nuclear Physics A</i> , 1993, 551, 241-254.	1.5	137
7	Electromagnetic structure of $A=2$ and 3 nuclei and the nuclear current operator. <i>Physical Review C</i> , 2005, 72, .	2.9	135
8	Critical comparison of experimental data and theoretical predictions for N-d scattering below the breakup threshold. <i>Nuclear Physics A</i> , 1996, 607, 402-424.	1.5	119
9	Local chiral potentials with $\hat{\Gamma}$ -intermediate states and the structure of light nuclei. <i>Physical Review C</i> , 2016, 94, .	2.9	117
10	Polarization observables in $n^3\text{H}$ scattering below 30 MeV. <i>Physical Review C</i> , 2001, 64, .	2.9	112
11	Light-Nuclei Spectra from Chiral Dynamics. <i>Physical Review Letters</i> , 2018, 120, 052503.	7.8	107
12	Weak capture of protons by protons. <i>Physical Review C</i> , 1998, 58, 1263-1277.	2.9	106
13	The baryon density of the Universe from an improved rate of deuterium burning. <i>Nature</i> , 2020, 587, 210-213.	27.8	101
14	Subleading contributions to the three-nucleon contact interaction. <i>Physical Review C</i> , 2011, 84, .	2.9	96
15	Chiral Effective Field Theory Predictions for Muon Capture on Deuteron and ^3He . <i>Physical Review Letters</i> , 2012, 108, 052502.	7.8	96
16	Three-nucleon bound states using realistic potential models. <i>Physical Review C</i> , 2003, 67, .	2.9	89
17	Calculation of the Λ -particle ground state within the hyperspherical harmonic basis. <i>Physical Review C</i> , 2005, 71, .	2.9	89
18	Neutrino physics with the PTOLEMY project: active neutrino properties and the light sterile case. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 047-047.	5.4	85

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37	Photodisintegration and electrodisintegration of ^3He threshold and p -radiative capture. Physical Review C, 2000, 61, .	2.9	54
38	Extraction of the neutron magnetic form factor from quasielastic $^3\text{He}(e, e')$ at $Q^2 = 0.1 \text{ to } 0.6 \text{ GeV}^2$. Physical Review C, 2007, 75, .	2.9	52
39	Spectra of helium clusters with up to six atoms using soft-core potentials. Physical Review A, 2011, 84, .	2.5	51
40	Energy spectra of small bosonic clusters having a large two-body scattering length. Physical Review A, 2012, 86, .	2.5	51
41	Neutron- ^3He and Proton- ^3He Zero Energy Scattering. Physical Review Letters, 1998, 81, 1580-1583. Benchmark calculation of n	7.8	50
42	^3He and ^3H and p	2.9	50
43	Variational Calculation on $A = 3$ and 4 Nuclei with Non-Local Potentials. Few-Body Systems, 2006, 39, 159-176.	1.5	49
44	Realistic Calculation of the $^3\text{He}+p$ (hep) Astrophysical Factor. Physical Review Letters, 2000, 84, 5959-5962.	7.8	48
45	Tritium β decay in chiral effective field theory. Physical Review C, 2016, 94, .	2.9	48
46	n -elastic scattering using the hyperspherical harmonics approach with realistic local and nonlocal interactions. Physical Review C, 2009, 80, .	2.9	46
47	Thermal Neutron Captures on ^3He and ^3H	7.8	46
48	n -scattering including electromagnetic forces. Physical Review C, 2004, 69, .	2.9	42
49	Muon capture on deuteron and ^3He . Physical Review C, 2011, 83, .	2.9	42
50	High-Precision Calculation of the Triton Ground State Within the Hyperspherical-Harmonics Method. Few-Body Systems, 1997, 22, 1-10.	1.5	41
51	Comparative study of three-nucleon force models in $A=3$ systems. Physical Review C, 2010, 81, .	2.9	41
52	Neutron structure function $F_2^n(x)$ from deep inelastic electron scattering off few-nucleon systems. Physical Review C, 2001, 64, .	2.9	40
53	Polarization Transfer in $^4\text{He}(e, e')^3\text{He}$: Is the Ratio G_E^p/G_M^p Modified in the Nuclear Medium?. Physical Review Letters, 2005, 94, 072303.	7.8	40
54	Universality and scaling in the N -body sector of Efimov physics. Physical Review A, 2014, 90, .	2.5	40

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73	Comparative study of three-nucleon force models in nuclear matter. <i>Physical Review C</i> , 2015, 91, .	2.9	27
74	Efimov Physics with $\$1/2\$$ Spin-Isospin Fermions. <i>Few-Body Systems</i> , 2016, 57, 217-227.	1.5	27
75	Variational description of continuum states in terms of integral relations. <i>Physical Review C</i> , 2010, 81, .	2.9	25
76	The Kohn Variational Principle for Elastic Proton-Deuteron Scattering Above Deuteron Breakup Threshold. <i>Few-Body Systems</i> , 2001, 30, 39-63.	1.5	24
77	Theoretical study of $^3\text{He}(\hat{1}/4\hat{a}^{\sim}, \hat{1}/2\hat{1}/4)$ capture. <i>Physical Review C</i> , 2002, 66, .	2.9	24
78	Harmonic hyperspherical basis for identical particles without permutational symmetry. <i>Physical Review A</i> , 2009, 79, .	2.5	24
79	Proton- ^3He elastic scattering at low energies and the \hat{a}^{\sim} puzzle. <i>EPJ Web of Conferences</i> , 2010, 3, 05011.	0.3	24
80	Implications of Efimov physics for the description of three and four nucleons in chiral effective field theory. <i>Physical Review C</i> , 2017, 95, .	2.9	24
81	Low-energy \hat{a}^{\sim} scattering: High-precision data, comparisons with theory, and phase-shift analyses. <i>Physical Review C</i> , 2002, 65, .	2.9	23
82	Two-body electrodisintegration of ^3He at high momentum transfer. <i>Physical Review C</i> , 2005, 72, .	2.9	23
83	Isospin Mixing in the Nucleon and $\langle \text{He} \rangle$ and the Nucleon Strange Electric Form Factor. <i>Physical Review Letters</i> , 2007, 99, 112002.	7.8	23
84	Precision Measurement of the Spin-Dependent Asymmetry in the Threshold Region of $^3\text{H} \hat{a}^{\sim} e(e\hat{a}^{\sim 2})$. <i>Physical Review Letters</i> , 2001, 87, 242501.	7.8	22
85	Correlated hyperspherical-harmonic expansion for three-nucleon systems. <i>Few-Body Systems</i> , 1990, 9, 1-9.	1.5	21
86	N-dscattering above the deuteron breakup threshold. <i>Physical Review C</i> , 1997, 56, 2987-2991.	2.9	21
87	Benchmark calculation of ^3H and ^3He scattering. <i>Physical Review C</i> , 2017, 95, .	2.9	21
88	Nonresonant Density of States Enhancement at Low Energies for Three or Four Neutrons. <i>Physical Review Letters</i> , 2020, 125, 052501.	7.8	20
89	Testing nuclear forces by polarization transfer coefficients $\text{ind}(\hat{p}\hat{a}^{\sim}, \hat{p}\hat{a}^{\sim})$ and $\text{d}(\hat{p}\hat{a}^{\sim}, \hat{d}\hat{a}^{\sim})$ reactions at $E_{\text{lab}}=22.7\text{MeV}$. <i>Physical Review C</i> , 2006, 73, .	2.9	19
90	Matching universal behavior with potential models. <i>Physical Review A</i> , 2016, 93, .	2.5	19

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91	H^3	2.9	19
92	Universal range corrections to Efimov trimers for a class of paths to the unitary limit. Physical Review A, 2015, 92, .	2.5	18
93	Embedding nuclear physics inside the unitary-limit window. Physical Review C, 2019, 100, .	2.9	18
94	Neutron-Triton Elastic Scattering. Few-Body Systems, 2009, 45, 119-121.	1.5	17
95	Saturation properties of helium drops from a leading-order description. Physical Review A, 2017, 96, .	2.5	17
96	Efimov Physics and Connections to Nuclear Physics. Annual Review of Nuclear and Particle Science, 2021, 71, 465-490.	10.2	17
97	X_{17}		

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109	Determination of proton-deuteron scattering lengths. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 471, 103-107.	4.1	13
110	Evidence for three nucleon force effects in $p\text{-}^3\text{He}$ elastic scattering. Physical Review C, 2001, 63, .	2.9	13
111	Three-Nucleon Continuum by Means of the Hyperspherical Adiabatic Method. Few-Body Systems, 2009, 45, 25-41.	1.5	13
112	Non-symmetrized Basis Function for Identical Particles. Few-Body Systems, 2009, 45, 127-131.	1.5	13
113	Integral relations and the adiabatic expansion method for $n\text{-}^3\text{He}$ reactions above the breakup threshold: Helium trimers with soft-core potentials. Physical Review A, 2012, 86, .	2.5	13
114	Coulomb effects in nucleon-deuteron polarization-transfer coefficients. Physical Review C, 2001, 64, .	2.9	12
115	Breakup of three particles within the adiabatic expansion method. Physical Review C, 2014, 90, .	2.9	12
116	Euler and correlated harmonic-oscillator wave functions for three-nucleon systems. Nuclear Physics A, 1989, 501, 503-512.	1.5	11
117	Unitary ambiguity of $n\text{-}^3\text{He}$ contact interactions and the $n\text{-}^3\text{He}$ force. Physical Review C, 2020, 102, .	2.9	11
118	Comprehensive study of the three- and four-neutron systems at low energies. Physical Review C, 2021, 103, .	2.9	11
119	Effect of Three Nucleon Forces in $p\text{-}^3\text{He}$ Scattering. Few-Body Systems, 2013, 54, 885-890.	1.5	10
120	Gaussian characterization of the unitary window for $n\text{-}^3\text{He}$: Bound, scattering, and virtual states. Physical Review C, 2020, 102, .	2.9	10
121	Correlated hyperspherical-harmonic calculations for three- and four-body systems. Il Nuovo Cimento A, 1992, 105, 1473-1489.	0.2	9
122	Variational estimates using a discrete variable representation. Physical Review A, 2004, 70, .	2.5	9
123	Theoretical description of three- and four-nucleon scattering states using bound-state-like wave functions. Physical Review C, 2012, 85, .	2.9	9
124	Measurement of Double-Polarization Asymmetries in the Quasielastic $^3\text{He}(p, p')^3\text{He}$ Reaction. Physical Review Letters, 2012, 109, 102501.	2.9	9

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127	New photodisintegration threshold observable in ^3He . Physical Review C, 1999, 61, .	2.9	8
128	JLab Measurement of the $\langle \sigma_{\text{charge}} \rangle$ of ^4He Charge Form Factor at Large Momentum Transfers. Physical Review Letters, 2014, 112, 132503.	7.8	8
129	Adiabatic Hyperspherical Analysis of Realistic Nuclear Potentials. Few-Body Systems, 2015, 56, 753-759.	1.5	8
130	Microscopic study of ^4He - ^3He trimers. Physical Review A, 2003, 68, .	2.5	7
131	Solving a coupled-channels scattering problem by adding confining potentials. Nuclear Physics A, 2010, 838, 20-37.	1.5	7
132	Six-Bodies Calculations Using the Hyperspherical Harmonics Method. Few-Body Systems, 2013, 54, 657-666.	1.5	7
133	Total cross section for $p+d$ breakup below 30 MeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 480, 250-256.	4.1	6
134	Bound and scattering states with non-local potentials. Nuclear Physics A, 2007, 790, 46c-51c.	1.5	6
135	Scattering States of Three-Body Systems with the Hyperspherical Adiabatic Method. Few-Body Systems, 2009, 45, 123-125.	1.5	6
136	Correlated Hyperspherical Harmonic Functions for Few-Nucleon Systems. Few-Body Systems, 1995, , 21-31.	0.2	6
137	Resonance splitting and broadening in axially deformed fermionic systems. Physical Review A, 1986, 34, 2433-2441.	2.5	5
138	Variational DVR Calculations. Few-Body Systems, 2004, 34, 11.	1.5	5
139	New developments in the study of few-nucleon systems. Nuclear Physics A, 2005, 751, 226-243.	1.5	5
140	Efimov Physics in Small Bosonic Clusters. Few-Body Systems, 2013, 54, 1547-1550.	1.5	5
141	Efimov Spectrum in Bosonic Systems with Increasing Number of Particles. Few-Body Systems, 2014, 55, 945-948.	1.5	5
142	Universality in few-body Systems: from few-atoms to few-nucleons. Journal of Physics: Conference Series, 2014, 527, 012001.	0.4	5
143	Tuning the ^3N force from ^3N scattering data. EPJ Web of Conferences, 2016, 113, 04009.	0.3	5
144	JLab Measurements of the ^3He Form Factors at Large Momentum Transfers. Physical Review Letters, 2017, 119, 162501.	7.8	5

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163	Relativistic Description of 3He ($e, e\hat{e}^2 p$) 2H . <i>Few-Body Systems</i> , 2011, 50, 359-362.	1.5	3
164	Testing Nucleon-nucleon Potentials in Three- and Four-nucleon Scattering Observables. <i>Few-Body Systems</i> , 2013, 54, 2395-2406.	1.5	3
165	Three-Body Coulomb Functions in the Hyperspherical Adiabatic Expansion Method. <i>Few-Body Systems</i> , 2016, 57, 1227-1241.	1.5	3
166	Universal Behavior of Few-Boson Systems Using Potential Models. <i>Few-Body Systems</i> , 2017, 58, 1.	1.5	3
167	Euler and correlated harmonic-oscillator wave function for the trinucleon bound-state. <i>Few-Body Systems</i> , 1991, 11, 111-120.	1.5	2
168	An energy-dependent phase shift analysis of low-energy proton-deuteron elastic scattering. <i>Nuclear Physics A</i> , 1998, 631, 680-682.	1.5	2
169	Transverse asymmetry of ^3He and the magnetic form factor of the neutron. <i>European Physical Journal A</i> , 2004, 19, 87-92.	2.5	2
170	Continuum three-body states using the hyperspherical adiabatic basis set. <i>Few-Body Systems</i> , 2008, 44, 371-373.	1.5	2
171	Analysis of the Effects of Three-nucleon Forces in $A = \hat{A}3, 4$ Systems. <i>Few-Body Systems</i> , 2009, 45, 115-118.	1.5	2
172	Weakly bound states with spin-isospin symmetry. <i>EPJ Web of Conferences</i> , 2016, 113, 03001.	0.3	2
173	$1/2$ spin-isospin fermions close to the unitary limit. <i>Journal of Physics: Conference Series</i> , 2018, 981, 012021.	0.4	2
174	Use of Correlated Hyperspherical Harmonic Basis for Strongly Interacting Systems. , 1991, , 391-403.		2
175	Three-Nucleon Electroweak Capture Reactions. <i>Few-Body Systems</i> , 2003, , 87-98.	0.2	2
176	Variational Calculation of Three-Nucleon Electroweak Capture Reactions. <i>Few-Body Systems</i> , 2003, , 319-324.	0.2	2
177	Convergence of the hyperspherical harmonic expansion for four body scattering problems. <i>Nuclear Physics A</i> , 2004, 737, 205-209.	1.5	2
178	Boson correlation energy in a modified quantal Brownian motion model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1990, 144, 134-138.	2.1	1
179	Effects of three-body forces in the 3H bound state. <i>Physical Review C</i> , 1998, 58, 49-57.	2.9	1
180	Recent developments in few-nucleon systems. <i>Nuclear Physics A</i> , 2004, 737, 61-69.	1.5	1

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181	Benchmark calculations and new advances in four-nucleon systems. AIP Conference Proceedings, 2005, , .	0.4	1
182	Variational Description of Bound States in Three- and Four-Nucleon Systems. Few-Body Systems, 2006, 38, 63-66.	1.5	1
183	VARIATIONAL DESCRIPTION OF FEW-NUCLEON SYSTEMS: BOUND AND SCATTERING STATES. International Journal of Modern Physics B, 2006, 20, 5330-5333.	2.0	1
184	N $\hat{\epsilon}$ delastic scattering at low-energies with local and non-local realistic nuclear interactions. Journal of Physics: Conference Series, 2009, 168, 012005.	0.4	1
185	Recent Progress in Ab-initio Four-Body Scattering Calculations. Few-Body Systems, 2013, 54, 647-656.	1.5	1
186	Some aspects of universality in Efimov physics. Journal of Physics: Conference Series, 2014, 527, 012002.	0.4	1
187	Structure and dynamics of few-helium clusters using soft-core potentials. Physics of Atomic Nuclei, 2014, 77, 463-471.	0.4	1
188	Three-Nucleon Force Effects in $\vec{p} - 3\text{H}$. Few-Body Systems, 2017, 58, 1.	1.5	1
189	Three-Body Wave Functions in the Continuum: Application to the Repulsive Coulomb Case. Few-Body Systems, 2017, 58, 1.	1.5	1
190	Many-body energy density functional. Physical Review A, 2021, 104, .	2.5	1
191	Four-Body Continuum with Three-Nucleon Forces. Springer Proceedings in Physics, 2020, , 471-477.	0.2	1
192	Calculation of the $\hat{\pm}$ -Particle Ground State with the Hyperspherical Harmonic Basis. Few-Body Systems, 2003, , 145-146.	0.2	1
193	Correlated Hyperspherical Harmonic Methods and Applications. Few-Body Systems, 1999, , 27-36.	0.2	1
194	A description of the dynamics and thermodynamics of vibration damping in axially deformed nuclei. Zeitschrift für Physik A, Atomic Nuclei, 1987, 328, 151-164.	0.3	0
195	Calculation of bound and scattering states of four nucleons. AIP Conference Proceedings, 1995, , .	0.4	0
196	Charge-independence breaking effects in nucleon-deuteron scattering. AIP Conference Proceedings, 1995, , .	0.4	0
197	Effects of Nonnucleonic Degrees of Freedom in the $D(\hat{p}^+, \hat{\Lambda}^3)\text{He}_3$ and $d(\hat{d}^+, \hat{\Lambda}^3)\text{He}_3$ Reactions. Physical Review Letters, 1996, 77, 586-586.	7.8	0
198	Can neutron electromagnetic form factors be obtained by polarized inclusive electron scattering off polarized three-nucleon bound states?. Nuclear Physics A, 1998, 631, 597-601.	1.5	0

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199	Variational study of 3N scattering. Nuclear Physics A, 1998, 631, 668-672.	1.5	0
200	Convergence of the hyperspherical harmonic expansion for four body scattering problems. Nuclear Physics A, 2004, 737, 205-209.	1.5	0
201	Electromagnetic transitions for A=3 nuclear systems. AIP Conference Proceedings, 2005, , .	0.4	0
202	VARIATIONAL DESCRIPTION OF FEW-NUCLEON SYSTEMS: BOUND AND SCATTERING STATES. , 2006, , .		0
203	N ^d Elastic Scattering at Low Energy with Realistic Interactions. AIP Conference Proceedings, 2008, , .	0.4	0
204	Hadronic parity violation in few-body systems. Journal of Physics: Conference Series, 2009, 168, 012003.	0.4	0
205	Three-nucleon force study in $A=3,4$ systems. Journal of Physics: Conference Series, 2009, 168, 012004.	0.4	0
206	Accurate calculation of phase shifts for three-body reactions with the adiabatic expansion method. Nuclear Physics A, 2010, 834, 799c-801c.	1.5	0
207	Recent Developments in Few-Nucleon Scattering. EPJ Web of Conferences, 2010, 3, 01002.	0.3	0
208	Multichannel reactions using the adiabatic expansion method. Journal of Physics: Conference Series, 2011, 312, 082036.	0.4	0
209	The scattering matrix from bound state solutions. Journal of Physics: Conference Series, 2011, 336, 012005.	0.4	0
210	Study of parity violating observables in few-nucleon systems. Journal of Physics: Conference Series, 2011, 336, 012003.	0.4	0
211	Towards a more refined model of three-nucleon interaction. Journal of Physics: Conference Series, 2011, 336, 012004.	0.4	0
212	Analysis of Three-Nucleon Forces Effects in the $A=3$ System. Few-Body Systems, 2011, 49, 19-25.	1.5	0
213	Integral Relations for Multichannel Reactions. Few-Body Systems, 2011, 50, 459-461.	1.5	0
214	Efimov Physics with a Finite-Range Parameter. Few-Body Systems, 2015, 56, 881-887.	1.5	0
215	30th Anniversary of Few-Body Systems. Few-Body Systems, 2017, 58, 1.	1.5	0
216	Nuclear matter calculations with chiral interactions. Journal of Physics: Conference Series, 2018, 981, 012009.	0.4	0

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217	COULOMB EFFECTS IN THREE- AND FOUR-NUCLEON SYSTEMS. , 2003, , .		0
218	A STUDY OF FINAL STATE EFFECTS IN THE ELECTRODISINTEGRATION OF A POLARIZED HELIUM-3 TARGET. , 2005, , .		0
219	ELECTROMAGNETIC STRUCTURE OF FEW-BODY NUCLEAR SYSTEMS. , 2005, , .		0
220	The Hyperspherical Harmonic Method Applied to ^{12}C and ^{16}O in the $\hat{1}\pm$ -Particle Model. , 1992, , 387-397.		0
221	Convergence Properties of the Adiabatic Expansion for Few-Nucleon Systems. Few-Body Systems, 1995, , 44-48.	0.2	0
222	Bosonic Drops with Two- and Three-Body Interactions Close to the Unitary Limit. Springer Proceedings in Physics, 2020, , 851-856.	0.2	0
223	Effective Field Theory Descriptions of Few-Nucleon Systems. Springer Proceedings in Physics, 2020, , 517-527.	0.2	0
224	Celebrating 30 Years of Steven Weinberg's Paper Nuclear Forces from Chiral Lagrangians - an Introduction to the Special Issue. Few-Body Systems, 2022, 63, .	1.5	0