Sofia Quaglioni

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5990430/publications.pdf

Version: 2024-02-01

81 papers	2,989 citations	172457 29 h-index	161849 54 g-index
83 all docs	83 docs citations	83 times ranked	1517 citing authors

#	Article	IF	Citations
1	Recent developments in no-core shell-model calculations. Journal of Physics G: Nuclear and Particle Physics, 2009, 36, 083101.	3.6	299
2	Three-Nucleon Low-Energy Constants from the Consistency of Interactions and Currents in Chiral Effective Field Theory. Physical Review Letters, 2009, 103, 102502.	7.8	211
3	Discrepancy between experimental and theoretical Î²-decay rates resolved from first principles. Nature Physics, 2019, 15, 428-431.	16.7	195
4	AbÂInitioMany-Body Calculations of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:mmultiscripts><mml:mi mathvariant="normal">H</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math>,<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi><mml:mtext	7.8	181
5	Ab initiomany-body calculations of nucleon-nucleus scattering. Physical Review C, 2009, 79, .	2.9	153
6	Unifiedab initioapproaches to nuclear structure and reactions. Physica Scripta, 2016, 91, 053002.	2.5	147
7	AbAInitioMany-Body Calculations of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">H</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts><mml:mo stretchy="false">(</mml:mo><mml:mi>d</mml:mi><mml:mo>,</mml:mo><mml:mi>n</mml:mi><mml:mo) Tj ETQq1 1 0.784314 rgBT	7.8	100
8	AbÂInitioDescription of the Exotic Unbound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>7</mml:mn></mml:mmultiscripts></mml:math>Nucleus. Physical Review Letters, 2013, 110, 022505.	7.8	99
9	Unifiedab initioapproach to bound and unbound states: No-core shell model with continuum and its application to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>7</mml:mn></mml:msup></mml:math>He. Physical Review C, 2013, 87, .	2.9	99
10	Ab initiomany-body calculations of nucleon scattering on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">He</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>,<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi	2.9	87
11	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Be</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>11</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>?	7.8	81
12	Ab initiomany-body calculations of deuteron-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">He</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>scattering and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Li</mml:mi><mml:mprescripts />	2.9	73
13	CIELO Collaboration Summary Results: International Evaluations of Neutron Reactions on Uranium, Plutonium, Iron, Oxygen and Hydrogen. Nuclear Data Sheets, 2018, 148, 189-213.	2.2	73
14	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">He</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:mmultiscripts><mml:mo stretchy="false">(</mml:mo><mml:mi>Î±</mml:mi><mml:mo>,</mml:mo><mml:mi>Î³</mml:mi><mml:mo) Tj ETQq0 0 0 rgBT /Overlock	4.1	65
15	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mmultiscripts><mml:mi mathvariant="normal">Be</mml:mi><mml:mprescripts /><mml:none /><mml:mn>7</mml:mn></mml:mmultiscripts><mml:mo stretchy="false">(</mml:mo><mml:mi>p</mml:mi><mml:mo>,</mml:mo><mml:mi>Î³</mml:mi><mml:mo) Tj ETQq1 1 0.784314 rgBT	4.1	62
16	Unified Description of<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>Structure and Deuterium-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi></mml:mrow><mml:mprescripts />	7.8	56
17	Ab initiomany-body calculations of nucleon-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>4</mml:mn></mml:msup></mml:math>He scattering with three-nucleon forces. Physical Review C, 2013, 88, .	2.9	55
18	Computational nuclear quantum many-body problem: The UNEDF project. Computer Physics Communications, 2013, 184, 2235-2250.	7.5	52

#	Article	IF	Citations
19	The 4He total photo-absorption cross section with two- plus three-nucleon interactions from chiral effective field theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 652, 370-375.	4.1	50
20	Two-body photodisintegration ofHe4with full final state interaction. Physical Review C, 2004, 69, .	2.9	49
21	Ab initio predictions for polarized deuterium-tritium thermonuclear fusion. Nature Communications, 2019, 10, 351.	12.8	44
22	Measurements of the Differential Cross Sections for the Elastic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi><mml:mtext mathvariant="normal">â”’</mml:mtext><mml:mmultiscripts><mml:mi mathvariant="normal">H</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi><mml:mtext	7.8	43
23	Optimal control for the quantum simulation of nuclear dynamics. Physical Review A, 2020, 101, .	2.5	37
24	Operator evolution forab initiotheory of light nuclei. Physical Review C, 2014, 90, .	2.9	36
25	He4+n+nContinuum within anAbÂinitioFramework. Physical Review Letters, 2014, 113, 032503.	7.8	34
26	Predictive theory for elastic scattering and recoil of protons from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">He</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>. Physical Review	2.9	32
27	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î²</mml:mi></mml:mrow></mml:math> Decay in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Ca</mml:mi></mml:mrow><mml:mprescripts /><mml:none	7.8	32
28	Knockout Reactions from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-Shell Nuclei: Tests ofAbÂInitioStructure Models. Physical Review Letters, 2011, 106, 162502.	7.8	31
29	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>Clustering Shape<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi></mml:mrow><mml:mprescripts /><mml:none	7.8	30
30	Continuum and three-nucleon force effects on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">Be</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>9</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>energy levels. Physical Review C, 2015, 91.	2.9	29
31	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="bold">T</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>t</mml:mi><mml:mo>,</mml:mo><mml:mn>2</mml:mn><mml:mi>n</mml:mi><mml:mo>)	7.8	27
32	Three-cluster dynamics within anab initioframework. Physical Review C, 2013, 88, .	2.9	27
33	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Be</mml:mi><mml:mprescripts /><mml:none /><mml:mn>7</mml:mn></mml:mmultiscripts></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Li</mml:mi><mml:mprescripts />	2.9	24
34	Precision measurement of the electromagnetic dipole strengths in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">Be</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>11</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>. Physics Letters,	4.1	23
35	Deuteron-induced, nucleon transfer reactions with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math>-shell nuclei. Nuclear Physics, Section A, 2013, 913, 96-121.	2.9	23
36	Nuclear Force Imprints Revealed on the Elastic Scattering of Protons with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">C</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>10</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2017, 118, 262502.	7.8	23

#	Article	IF	Citations
37	Electric dipole polarizabilities of hydrogen and helium isotopes. Physical Review C, 2009, 79, .	2.9	20
38	Three-cluster dynamics within the ab initio no-core shell model with continuum: How many-body correlations and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi></mml:math> clustering shape <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>6</mml:mn></mml:mmultiscripts></mml:math>. Physical Review C, 2018, 97, .	2.9	19
39	Quantifying uncertainties in neutron- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi></mml:math> scattering with chiral nucleon-nucleon and three-nucleon forces. Physical Review C, 2020, 102, .	2.9	18
40	Benchmark calculation of inclusive electromagnetic responses in the four-body nuclear system. Nuclear Physics A, 2007, 785, 307-321.	1.5	17
41	Light nuclei from chiral EFT interactions. Few-Body Systems, 2008, 43, 129-135.	1.5	17
42	Operator evolution forab initioelectric dipole transitions of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math>. Physical Review C, 2015, 92, .	2.9	15
43	Structure of the exotic He9 nucleus from the no-core shell model with continuum. Physical Review C, 2018, 97, .	2.9	15
44	Proton inelastic scattering reveals deformation in 8He. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 822, 136710.	4.1	14
45	He4(e,e'p)H3reaction with full final-state interactions. Physical Review C, 2005, 72, .	2.9	13
46	Application of an ab initio <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>S</mml:mi></mml:math> matrix to data analysis of transfer reactions to the continuum populating <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Be</mml:mi><mml:mprescripts /><mml:none /><mml:mn>11</mml:mn></mml:mmultiscripts></mml:math>. Physical Review C, 2019, 100, .	2.9	12
47	Imaginary-time propagation on a quantum chip. Physical Review A, 2022, 105, .	2.5	11
48	Ab initio calculation of the 4He(e, e'd)d reaction. European Physical Journal A, 2006, 27, 47-52.	2.5	10
49	Lifetime measurements ofC17excited states and three-body and continuum effects. Physical Review C, 2015, 92, .	2.9	10
50	Microscopic investigation of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Li</mml:mi><mml:mprescripts /><mml:none /><mml:mn>8</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>n</mml:mi><mml:mo>,</mml:mo><mml:mi>I³</mml:mi><mml:mprescripts /><mml:none /><mml:mn>9</mml:mn></mml:mmultiscripts></mml:mrow></mml:math> reaction. Physical Review C, 2021, 103, .	2.9	10
51	Ab initio no-core shell model and microscopic reactions: Recent achievements. Few-Body Systems, 2008, 44, 337-339.	1.5	8
52	From nucleons to nuclei to fusion reactions. Journal of Physics: Conference Series, 2012, 402, 012037.	0.4	7
53	Quantum state preparation by adiabatic evolution with custom gates. Physical Review A, 2022, 105, .	2.5	7
54	Experimental Evidence of a Variant Neutron Spectrum from the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>T</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>t</mml:mi><mml:mo>,</mml:mo><mml:mn>2</mml:mn><mml:mi>n</mml:mi><mml:mo) Tj ET Energies in the Range of 16â€“50ÂkeV. Physical Review Letters, 2018, 121, 042501.	7.8	6

#	Article	IF	Citations
55	Ab Initio Theory of Light-ion Reactions. Journal of Physics: Conference Series, 2011, 312, 082002.	0.4	5
56	The ab initio No-Core Shell Model and Light Nuclei. Few-Body Systems, 2011, 49, 11-18.	1.5	5
57	No-Core Shell Model Analysis of Light Nuclei. Few-Body Systems, 2013, 54, 877-884.	1.5	5
58	The CIELO collaboration: Progress in international evaluations of neutron reactions on Oxygen, Iron, Uranium and Plutonium. EPJ Web of Conferences, 2017, 146, 02001.	0.3	5
59	Scattering of light nuclei. EPJ Web of Conferences, 2010, 3, 01012.	0.3	3
60	Ab initio calculations of reactions with light nuclei. EPJ Web of Conferences, 2016, 113, 01005.	0.3	3
61	Light and unbound nuclei. European Physical Journal Plus, 2018, 133, 1.	2.6	3
62	Using spin alignment of inelastically excited nuclei in fast beams to assign spins: The spectroscopy of O13 as a test case. Physical Review C, 2021, 104, .	2.9	3
63	Progress on Light-Ion Fusion Reactions with Three-Nucleon Forces. Few-Body Systems, 2014, 55, 1013-1016.	1.5	2
64	Towards an ab initio description of light-nuclei radiative captures. EPJ Web of Conferences, 2016, 113, 06002.	0.3	2
65	Nuclear Resonances, Scattering, and Reactions from First Principles: Progress and Prospects. Nuclear Physics News, 2020, 30, 12-16.	0.4	2
66	Ab initio calculation of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> decay from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Be</mml:mi><mml:mprescripts /><mml:none /><mml:mn>11</mml:mn></mml:mmultiscripts></mml:math> to a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msup><mml:mrow /><mml:mn>	2.9	2
67	Benchmark calculation of inclusive responses in the four-body nuclear system. Nuclear Physics A, 2007, 790, 372c-375c.	1.5	1
68	The Ab Initio No-core Shell Model. Few-Body Systems, 2009, 45, 111-114.	1.5	1
69	Ab Initio NCSM/RGM for Three-Body Cluster Systems and Application to 4He+n+n. Few-Body Systems, 2014, 55, 927-930.	1.5	1
70	Close encounters of the alpha kind. Nature, 2015, 528, 42-43.	27.8	1
71	Microscopic calculation of the 4He(e, eÊ¹ p)3H reaction. AIP Conference Proceedings, 2005, , .	0.4	0
72	New developments within the no-core shell model. Journal of Physics: Conference Series, 2006, 49, 1-6.	0.4	0

#	Article	IF	Citations
73	Application of chiral two- and three-nucleon interactions to [sup 4]He photo-disintegration. AIP Conference Proceedings, 2008, , .	0.4	0
74	$oldsymbol Ab~Initio$ Calculations of Light-Ion Reactions. Progress of Theoretical Physics Supplement, 2012, 196, 117-124.	0.1	0
75	Ab initio calculations of light-ion fusion reactions. , 2012, , .		0
76	Tâ€“T Neutron Spectrum from Inertial Confinement Implosions. Few-Body Systems, 2013, 54, 1599-1602.	1.5	0
77	Ab initio calculations in three-body cluster systems. , 2013, , .		0
78	Advances in theab initiodescription of nuclear three-cluster systems. EPJ Web of Conferences, 2016, 113, 03004.	0.3	0
79	Ab initio calculations of reactions of light nuclei. EPJ Web of Conferences, 2017, 146, 12022.	0.3	0
80	⁷Li(d,p)⁸Li transfer reaction in the NCSM/RGM approach. Journal of Physics: Conference Series, 2018, 981, 012006.	0.4	0
81	Transfer to the continuum of 11Be with the application of ab-initio S-matrix. Journal of Physics: Conference Series, 2020, 1643, 012119.	0.4	0