Sofia Quaglioni

List of Publications by Year
in descending order

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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	Quantum state preparation by adiabatic evolution with custom gates. Physical Review A, 2022, 105, .	2.5	7
2	Imaginary-time propagation on a quantum chip. Physical Review A, 2022, 105, .	2.5	11
3	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:mmultiscripts><mml:mi>Be</mml:mi><mml:mprescripts /><mml:none /><mml:mn>11</mml:mn></mml:mmultiscripts></mml:math>	2.9	2
4	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>Î³</mml:mi><mml:mmultiscripts><mml:mi></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
5	<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 /><mml:mrow><mml:mn>48</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>	7.8	32
6	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
7	Proton inelastic scattering reveals deformation in 8He. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 822, 136710.	4.1	14
8	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
9	Optimal control for the quantum simulation of nuclear dynamics. Physical Review A, 2020, 101, .	2.5	37
10	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
11	Nuclear Resonances, Scattering, and Reactions from First Principles: Progress and Prospects. Nuclear Physics News, 2020, 30, 12-16.	0.4	2
12	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
13	<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 /><mml:none /><mml:mn>7</mml:mn></mml:mmultiscripts></mml:math> nuclei within the no-core shell model with continuum. Physical Review C, 2019, 100, .	2.9	24
14	Ab initio predictions for polarized deuterium-tritium thermonuclear fusion. Nature Communications, 2019, 10, 351.	12.8	44
15	Discrepancy between experimental and theoretical Î²-decay rates resolved from first principles. Nature Physics, 2019, 15, 428-431.	16.7	195
16	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
17	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
18	Structure of the exotic He9 nucleus from the no-core shell model with continuum. Physical Review C, 2018, 97, .	2.9	15

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19	⁷Li(<i>d</i>,<i>p</i>)⁸Li transfer reaction in the NCSM/RGM approach. Journal of Physics: Conference Series, 2018, 981, 012006.	0.4	0
20	Light and unbound nuclei. European Physical Journal Plus, 2018, 133, 1.	2.6	3
21	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€"50Â keV. Physical Review Letters, 2018, 121, 042501.	7.8	6
22	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
23	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
24	Ab initio calculations of reactions of light nuclei. EPJ Web of Conferences, 2017, 146, 12022.	0.3	0
25	Ab initio calculations of reactions with light nuclei. EPJ Web of Conferences, 2016, 113, 01005.	0.3	3
26	Towards an ab initio description of light-nuclei radiative captures. EPJ Web of Conferences, 2016, 113, 06002.	0.3	2
27	Can<i>AbÂ Initio</i>Theory Explain the Phenomenon of Parity Inversion in<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>?. Physical Review Letters, 2016, 117, 242501.	7.8	81
28	<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
29	[illegible] 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 /><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Ph	7.8	30
30	Deuteron-induced nucleon transfer reactions within an<i>ab initio</i>framework: First application to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math>-shell nuclei. Physical Review C, 2016, 93, .	2.9	23
31	Advances in theab initiodescription of nuclear three-cluster systems. EPJ Web of Conferences, 2016, 113, 03004.	0.3	0
32	Unified<i>ab initio</i>approaches to nuclear structure and reactions. Physica Scripta, 2016, 91, 053002.	2.5	147
33	Operator evolution for<i>ab initio</i>electric 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
34	Lifetime measurements ofC17excited states and three-body and continuum effects. Physical Review C, 2015, 92, .	2.9	10
35	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:mrow><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi></mml:mrow><mml:mprescripts	7.8	56
36	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

#	Article	IF	Citations
37	Close encounters of the alpha kind. Nature, 2015, 528, 42-43.	27.8	1
38	Operator evolution forab initiotheory of light nuclei. Physical Review C, 2014, 90, .	2.9	36
39	He4+n+nContinuum within anAbÂinitioFramework. Physical Review Letters, 2014, 113, 032503.	7.8	34
40	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 C, 2014, 90, .	2.9	32
41	Progress on Light-Ion Fusion Reactions with Three-Nucleon Forces. Few-Body Systems, 2014, 55, 1013-1016.	1.5	2
42	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
43	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. Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 732, 210-213.	4.1	23
44	No-Core Shell Model Analysis of Light Nuclei. Few-Body Systems, 2013, 54, 877-884.	1.5	5
45	Tâ€“T Neutron Spectrum from Inertial Confinement Implosions. Few-Body Systems, 2013, 54, 1599-1602.	1.5	0
46	Computational nuclear quantum many-body problem: The UNEDF project. Computer Physics Communications, 2013, 184, 2235-2250.	7.5	52
47	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
48	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
49	Three-cluster dynamics within anab initioframework. Physical Review C, 2013, 88, .	2.9	27
50	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
51	Ab initio calculations in three-body cluster systems. , 2013, , .		0
52	From nucleons to nuclei to fusion reactions. Journal of Physics: Conference Series, 2012, 402, 012037.	0.4	7
53	$oldsymbol Ab~Initio$ Calculations of Light-Ion Reactions. Progress of Theoretical Physics Supplement, 2012, 196, 117-124.	0.1	0
54	Ab initio calculations of light-ion fusion reactions. , 2012, , .		0

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55	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) Tj AbÂInitioMany-Body Calculations of the<mml:math /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math>Neutron Spectrum at Low	7.8	27
56	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 ETQq0 0 0 rgBT /Overlock	7.8	100
57	/><mml:non 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	7.8	43
58	Ab Initio Theory of Light-ion Reactions. Journal of Physics: Conference Series, 2011, 312, 082002.	0.4	5
59	Ab initio many-body calculation of the <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 rgB	4.1	62
60	mathvariant="normal">B</mml:mi><mml:mp The ab initio No-Core Shell Model and Light Nuclei. Few-Body Systems, 2011, 49, 11-18.	1.5	5
61	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 of AbÂInitioStructure	7.8	31
62	Ab initio many-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
63	Scattering of light nuclei. EPJ Web of Conferences, 2010, 3, 01012.	0.3	3
64	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 mathvariant="normal">Li</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>7</mml:mn>	2.9	87
65	Ab initiomany-body calculations of nucleon-nucleus scattering. Physical Review C, 2009, 79, .	2.9	153
66	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
67	Electric dipole polarizabilities of hydrogen and helium isotopes. Physical Review C, 2009, 79, .	2.9	20
68	Recent developments in no-core shell-model calculations. Journal of Physics G: Nuclear and Particle Physics, 2009, 36, 083101.	3.6	299
69	The Ab Initio No-core Shell Model. Few-Body Systems, 2009, 45, 111-114.	1.5	1
70	Light nuclei from chiral EFT interactions. Few-Body Systems, 2008, 43, 129-135.	1.5	17
71	Ab initio no-core shell model and microscopic reactions: Recent achievements. Few-Body Systems, 2008, 44, 337-339.	1.5	8
72	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

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73	Application of chiral two- and three-nucleon interactions to [sup 4]He photo-disintegration. AIP Conference Proceedings, 2008, , .	0.4	0
74	Benchmark calculation of inclusive responses in the four-body nuclear system. Nuclear Physics A, 2007, 790, 372c-375c.	1.5	1
75	Benchmark calculation of inclusive electromagnetic responses in the four-body nuclear system. Nuclear Physics A, 2007, 785, 307-321.	1.5	17
76	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
77	Ab initio calculation of the 4He(e, e'd)d reaction. European Physical Journal A, 2006, 27, 47-52.	2.5	10
78	New developments within the no-core shell model. Journal of Physics: Conference Series, 2006, 49, 1-6.	0.4	0
79	Microscopic calculation of the 4He(e, eÊ¹ p)3H reaction. AIP Conference Proceedings, 2005, , .	0.4	0
80	He4(e,e'p)H3reaction with full final-state interactions. Physical Review C, 2005, 72, .	2.9	13
81	Two-body photodisintegration ofHe4with full final state interaction. Physical Review C, 2004, 69, .	2.9	49