Ionel Stetcu

List of Publications by Year
in descending order

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99 papers	3,718 citations	201674 27 h-index	128289 60 g-index
108 all docs	108 docs citations	108 times ranked	2116 citing authors

#	Article	IF	Citations
1	ENDF/B-VIII.0: The 8 th Major Release of the Nuclear Reaction Data Library with CIELO-project Cross Sections, New Standards and Thermal Scattering Data. Nuclear Data Sheets, 2018, 148, 1-142.	2.2	1,324
2	Recent developments in no-core shell-model calculations. Journal of Physics G: Nuclear and Particle Physics, 2009, 36, 083101.	3.6	299
3	Induced Fission of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Pu</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>240</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>within a Real-Time Microscopic Framework. Physical Review Letters, 2016, 116, 122504.	7.8	182
4	Future of nuclear fission theory. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 113002.	3.6	105
5	Isovector giant dipole resonance from the 3D time-dependent density functional theory for superfluid nuclei. Physical Review C, 2011, 84, .	2.9	104
6	Monte Carlo Hauser-Feshbach predictions of prompt fission<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math>rays: Application to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>n</mml:mi><mml:mi>th</mml:mi></mml:msub><mml:mo>+</mml:mo><mml:msu /><mml:mn>235</mml:mn></mml:msup></mml:mrow></mml:math>U,<mml:math xmlns:mml="http://www	2.9	100
7	No-core shell model in an effective-field-theory framework. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 653, 358-362.	4.1	93
8	Effective operators within theab initiono-core shell model. Physical Review C, 2005, 71, .	2.9	71
9	Effective theory for trapped few-fermion systems. Physical Review A, 2007, 76, .	2.5	71
10	Fission dynamics of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Pu</mml:mi><mml:mprescripts /><mml:none /><mml:mn>240</mml:mn></mml:mmultiscripts></mml:math> from saddle to scission and beyond. Physical Review C, 2019, 100, .	2.9	69
11	Ab-initioshell model with a core. Physical Review C, 2008, 78, .	2.9	66
12	Electric dipole moments of light nuclei from chiral effective field theory. Physical Review C, 2011, 84, .	2.9	66
13	Correlated prompt fission data in transport simulations. European Physical Journal A, 2018, 54, 1.	2.5	56
14	Properties of prompt-fissionÎ³rays. Physical Review C, 2014, 90, .	2.9	55
15	An effective field theory approach to two trapped particles. Annals of Physics, 2010, 325, 1644-1666.	2.8	48
16	Nuclear electric dipole moment of 3He. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 665, 168-172.	4.1	46
17	Nuclear Fission Dynamics: Past, Present, Needs, and Future. Frontiers in Physics, 2020, 8, .	2.1	42
18	Three and four harmonically trapped particles in an effective-field-theory framework. Physical Review A, 2010, 82, .	2.5	41

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19	Fission fragment decay simulations with the CGMF code. Computer Physics Communications, 2021, 269, 108087.	7.5	40
20	Late-time emission of prompt fission <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math> rays. Physical Review C, 2016, 94, .	2.9	37
21	PromptÎ³-ray production in neutron-induced fission of239Pu. Physical Review C, 2013, 87, .	2.9	36
22	IAEA CIELO Evaluation of Neutron-induced Reactions on 235 U and 238 U Targets. Nuclear Data Sheets, 2018, 148, 254-292.	2.2	33
23	Isomer production ratios and the angular momentum distribution of fission fragments. Physical Review C, 2013, 88, .	2.9	32
24	Relativistic Coulomb Excitation within the Time Dependent Superfluid Local Density Approximation. Physical Review Letters, 2015, 114, 012701.	7.8	32
25	Effective operators from exact many-body renormalization. Physical Review C, 2009, 80, .	2.9	31
26	Fission Fragment Intrinsic Spins and Their Correlations. Physical Review Letters, 2021, 126, 142502.	7.8	30
27	Random phase approximation vs exact shell-model correlation energies. Physical Review C, 2002, 66, .	2.9	28
28	Unitary evolution with fluctuations and dissipation. Physical Review C, 2019, 100, .	2.9	27
29	Gamow-Teller transitions and deformation in the proton-neutron random phase approximation. Physical Review C, 2004, 69, .	2.9	25
30	Two and three nucleons in a trap, and the continuum limit. Physical Review C, 2012, 85, .	2.9	25
31	Effective interactions for light nuclei: an effective (field theory) approach. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 064033.	3.6	24
32	Fragment Intrinsic Spins and Fragmentsâ€™ Relative Orbital Angular Momentum in Nuclear Fission. Physical Review Letters, 2022, 128, 022501.	7.8	24
33	Ab initio No-Core Shell Model --Recent results and future prospects. European Physical Journal A, 2005, 25, 475-480.	2.5	23
34	Long- and short-range correlations in theab-initiono-core shell model. Physical Review C, 2006, 73, .	2.9	23
35	Extension of the Hauser-Feshbach fission fragment decay model to multichance fission. Physical Review C, 2021, 103, .	2.9	22
36	Particle-hole state densities with nonequidistant single-particle levels. Physical Review C, 1998, 58, 295-306.	2.9	21

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37	Electric dipole polarizabilities of hydrogen and helium isotopes. Physical Review C, 2009, 79, .	2.9	20
38	Statistical and evaporation models for the neutron emission energy spectrum in the center-of-mass system from fission fragments. Nuclear Physics A, 2013, 913, 51-70.	1.5	20
39	Measured and simulated Cf(sf)252 prompt neutron-photon competition. Physical Review C, 2018, 97, .	2.9	20
40	The LISE package: Solvers for static and time-dependent superfluid local density approximation equations in three dimensions. Computer Physics Communications, 2021, 269, 108130.	7.5	20
41	Angular Momentum Removal by Neutron and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math> -Ray Emissions during Fission Fragment Decays. Physical Review Letters, 2021, 127, 222502.	7.8	18
42	Benchmark calculation of inclusive electromagnetic responses in the four-body nuclear system. Nuclear Physics A, 2007, 785, 307-321.	1.5	17
43	Variational approaches to constructing the many-body nuclear ground state for quantum computing. Physical Review C, 2022, 105, .	2.9	17
44	ELECTROMAGNETIC TRANSITIONS WITH EFFECTIVE OPERATORS. International Journal of Modern Physics E, 2005, 14, 95-103.	1.0	16
45	Effective interactions for multistep processes. Nuclear Physics A, 2001, 693, 616-629.	1.5	14
46	Prompt Fission Neutrons and Gamma Rays in a Monte Carlo Hauser-Feshbach Formalism. Physics Procedia, 2013, 47, 39-46.	1.2	14
47	Informing nuclear physics via machine learning methods with differential and integral experiments. Physical Review C, 2021, 104, .	2.9	14
48	Evaluation of the Prompt Fission Gamma Properties for Neutron Induced Fission of 235,238U and 239Pu. Nuclear Data Sheets, 2020, 163, 261-279.	2.2	13
49	Tests of the random phase approximation for transition strengths. Physical Review C, 2003, 67, .	2.9	12
50	Effective interactions and operators in the no-core shell model. Progress in Particle and Nuclear Physics, 2013, 69, 182-224.	14.4	10
51	Modeling the Emission of Prompt Fission Î³ Rays for Fundamental Physics and Applications. Physics Procedia, 2014, 59, 83-88.	1.2	10
52	Correlated fission data measurements with DANCE and NEUANCE. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 882, 105-113.	1.6	10
53	Prompt Fission Gamma-ray Studies at DANCE. Physics Procedia, 2014, 59, 101-106.	1.2	9
54	Neutron-induced fission: properties of prompt neutron andÎ³rays as a function of incident energy. EPJ Web of Conferences, 2016, 122, 01012.	0.3	7

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55	High resolution measurement of tagged two-neutron energy and angle correlations in Cf252 (sf). Physical Review C, 2019, 100, .	2.9	7
56	Correlations between fission fragment and neutron anisotropies in neutron-induced fission. Physical Review C, 2020, 102, .	2.9	7
57	Influence of nonstatistical properties in nuclear structure on emission of prompt fission neutrons. Physical Review C, 2021, 104, .	2.9	7
58	Scalar ground-state observables in the random phase approximation. Physical Review C, 2002, 66, .	2.9	6
59	From non-Hermitian effective operators to large-scale no-core shell model calculations for light nuclei. Journal of Physics A, 2006, 39, 9983-9992.	1.6	6
60	Structure in the event-by-event energy-dependent neutron-Î³ multiplicity correlations in Cf252 (sf). Physical Review C, 2021, 104, .	2.9	6
61	Capture and fission with DANCE and NEUANCE. European Physical Journal A, 2015, 51, 1.	2.5	5
62	Dependence of the prompt fission Î³-ray spectrum on the entrance channel of compound nucleus: Spontaneous vs. neutron-induced fission. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 782, 652-656.	4.1	5
63	Noniterative finite amplitude methods for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>E</mml:mi><mml:mn>1</mml:mn></mml:mrow></mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>M</mml:mi><mml:mn>1</mml:mn></mml:mrow></mml: resonances. Physical Review C, 2022, 105, .	2.9	4
64	SU(3) versus deformed Hartree-Fock state. Physical Review C, 2002, 66, .	2.9	3
65	Current and Future Research at DANCE. EPJ Web of Conferences, 2015, 93, 02019.	0.3	3
66	Prompt fission neutron and Î³ ray properties as a function of incident neutron energy. EPJ Web of Conferences, 2017, 146, 04026.	0.3	3
67	Accuracy of Fission Dynamics Within the Time-dependent Superfluid Local Density Approximation. Acta Physica Polonica B, 2018, 49, 591.	0.8	3
68	Publisher's Note: Two and three nucleons in a trap, and the continuum limit [Phys. Rev. C85, 034003 (2012)]. Physical Review C, 2012, 85, .	2.9	2
69	Nuclear Fission: from more phenomenology and adjusted parameters to more fundamental theory and increased predictive power. EPJ Web of Conferences, 2017, 163, 00007.	0.3	2
70	Comprehensive modeling of prompt fission neutrons and Î³ rays in the spontaneous fission of 252Cf. EPJ Web of Conferences, 2017, 146, 04031.	0.3	2
71	Effective operators in the NCSM formalism. European Physical Journal A, 2005, 25, 489-490.	2.5	1
72	SHORTCUTS TO NUCLEAR STRUCTURE: LESSONS IN HARTREEâ€“FOCK, RPA, AND THE NO-CORE SHELL MODEL. International Journal of Modern Physics E, 2005, 14, 57-65.	1.0	1

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73	Benchmark calculation of inclusive responses in the four-body nuclear system. Nuclear Physics A, 2007, 790, 372c-375c.	1.5	1
74	Ab initioshell model with a core: Extending the No Core Shell Model to heavier nuclei. Journal of Physics: Conference Series, 2011, 312, 092016.	0.4	1
75	Implementing and testing theoretical fission fragment yields in a Hauser-Feshbach statistical decay framework. EPJ Web of Conferences, 2018, 169, 00006.	0.3	1
76	Measurements of Correlated Fission Data with DANCE and NEUANCE. , 2017, , .		1
77	The Los Alamos fission yield evaluation pipeline. EPJ Web of Conferences, 2020, 242, 05002.	0.3	1
78	Multiplicity of scision neutrons from density functional scission dynamics. EPJ Web of Conferences, 2021, 256, 00004.	0.3	1
79	Fission in a microscopic framework: From basic science to support for applications. EPJ Web of Conferences, 2021, 256, 00016.	0.3	1
80	Absolute mass calibration of fission product distributions measured with the E-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e670" altimg="si20.svg"><mml:mi>ĺ...</mml:mi></mml:math> method. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2022, , 166853.	1.6	1
81	The Ab Initio Large-Basis No-Core Shell Model. AIP Conference Proceedings, 2004, , .	0.4	0
82	Ab initiono-core shell model for light nuclei and other applications. Journal of Physics: Conference Series, 2005, 20, 71-76.	0.4	0
83	Ab Initio Large-Basis No-Core Shell Model. AIP Conference Proceedings, 2005, , .	0.4	0
84	Effective Interactions and Operators in Nuclei within the No-Core Shell Model. AIP Conference Proceedings, 2006, , .	0.4	0
85	New developments within the no-core shell model. Journal of Physics: Conference Series, 2006, 49, 1-6.	0.4	0
86	No-Core Shell Model as an Effective Theory. AIP Conference Proceedings, 2008, , .	0.4	0
87	Publisher's Note: Effective theory for trapped few-fermion systems [Phys. Rev. A76, 063613 (2007)]. Physical Review A, 2008, 77, .	2.5	0
88	Nuclear electric dipole moment of [sup 3]He. , 2009, , .		0
89	Collapse of the random-phase approximation: Examples and counter-examples from the shell model. Physical Review C, 2009, 80, .	2.9	0
90	Ab initioshell model with a core. Journal of Physics: Conference Series, 2011, 267, 012016.	0.4	0

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91	Nuclear Structure and Dynamics with Density Functional Theory. Acta Physica Polonica B, 2015, 46, 391.	0.8	0
92	Prompt neutron multiplicity distributions inferred from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math> -ray and fission fragment energy measurements. Physical Review C, 2019, 100, .	2.9	0
93	THE AB INITIO LARGE-BASIS NO-CORE SHELL MODEL. , 2005, , .		0
94	NO-CORE SHELL MODEL FOR NUCLEAR STRUCTURE AND REACTIONS. , 2007, , .		0
95	MONTE CARLO HAUSER-FESHBACH CALCULATIONS OF PROMPT FISSION NEUTRONS AND GAMMA RAYS. , 2013, , .		0
96	Late Prompt Fission Gamma Rays from 235U(n,f) and 252Cf(sf). EPJ Web of Conferences, 2020, 242, 01007.	0.3	0
97	Ab initio No-Core Shell Model â€"Recent results and future prospects. , 2005, , 475-480.		0
98	Effective operators in the NCSM formalism. , 2005, , 489-490.		0
99	Anisotropy in fission fragment and prompt neutron angular distributions. EPJ Web of Conferences, 2021, 256, 00009.	0.3	0