Ionel Stetcu

List of Publications by Year
in descending order

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	Fragment Intrinsic Spins and Fragmentsâ€™ Relative Orbital Angular Momentum in Nuclear Fission. Physical Review Letters, 2022, 128, 022501.	7.8	24
2	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:m 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
3	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>Ï…</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
4	Variational approaches to constructing the many-body nuclear ground state for quantum computing. Physical Review C, 2022, 105, .	2.9	17
5	Extension of the Hauser-Feshbach fission fragment decay model to multichance fission. Physical Review C, 2021, 103, .	2.9	22
6	Fission Fragment Intrinsic Spins and Their Correlations. Physical Review Letters, 2021, 126, 142502.	7.8	30
7	Influence of nonstatistical properties in nuclear structure on emission of prompt fission neutrons. Physical Review C, 2021, 104, .	2.9	7
8	Structure in the event-by-event energy-dependent neutron- Î³ multiplicity correlations in Cf252 (sf). Physical Review C, 2021, 104, .	2.9	6
9	Informing nuclear physics via machine learning methods with differential and integral experiments. Physical Review C, 2021, 104, .	2.9	14
10	Fission fragment decay simulations with the CGMF code. Computer Physics Communications, 2021, 269, 108087.	7.5	40
11	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
12	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
13	Multiplicity of scision neutrons from density functional scission dynamics. EPJ Web of Conferences, 2021, 256, 00004.	0.3	1
14	Fission in a microscopic framework: From basic science to support for applications. EPJ Web of Conferences, 2021, 256, 00016.	0.3	1
15	Anisotropy in fission fragment and prompt neutron angular distributions. EPJ Web of Conferences, 2021, 256, 00009.	0.3	0
16	Correlations between fission fragment and neutron anisotropies in neutron-induced fission. Physical Review C, 2020, 102, .	2.9	7
17	Nuclear Fission Dynamics: Past, Present, Needs, and Future. Frontiers in Physics, 2020, 8, .	2.1	42
18	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

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19	Future of nuclear fission theory. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 113002.	3.6	105
20	The Los Alamos fission yield evaluation pipeline. EPJ Web of Conferences, 2020, 242, 05002.	0.3	1
21	Late Prompt Fission Gamma Rays from 235U(n,f) and 252Cf(sf). EPJ Web of Conferences, 2020, 242, 01007.	0.3	0
22	Unitary evolution with fluctuations and dissipation. Physical Review C, 2019, 100, .	2.9	27
23	High resolution measurement of tagged two-neutron energy and angle correlations in Cf252 (sf). Physical Review C, 2019, 100, .	2.9	7
24	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
25	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
26	Implementing and testing theoretical fission fragment yields in a Hauser-Feshbach statistical decay framework. EPJ Web of Conferences, 2018, 169, 00006.	0.3	1
27	IAEA CIELO Evaluation of Neutron-induced Reactions on 235 U and 238 U Targets. Nuclear Data Sheets, 2018, 148, 254-292.	2.2	33
28	Correlated prompt fission data in transport simulations. European Physical Journal A, 2018, 54, 1.	2.5	56
29	Measured and simulated Cf(sf)252 prompt neutron-photon competition. Physical Review C, 2018, 97, .	2.9	20
30	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
31	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
32	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
33	Accuracy of Fission Dynamics Within the Time-dependent Superfluid Local Density Approximation. Acta Physica Polonica B, 2018, 49, 591.	0.8	3
34	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
35	Prompt fission neutron and Î³ ray properties as a function of incident neutron energy. EPJ Web of Conferences, 2017, 146, 04026.	0.3	3
36	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

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37	Measurements of Correlated Fission Data with DANCE and NEUANCE. , 2017, , .		1
38	Neutron-induced fission: properties of prompt neutron andÎ³rays as a function of incident energy. EPJ Web of Conferences, 2016, 122, 01012.	0.3	7
39	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
40	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
41	Current and Future Research at DANCE. EPJ Web of Conferences, 2015, 93, 02019.	0.3	3
42	Capture and fission with DANCE and NEUANCE. European Physical Journal A, 2015, 51, 1.	2.5	5
43	Relativistic Coulomb Excitation within the Time Dependent Superfluid Local Density Approximation. Physical Review Letters, 2015, 114, 012701.	7.8	32
44	Nuclear Structure and Dynamics with Density Functional Theory. Acta Physica Polonica B, 2015, 46, 391.	0.8	0
45	Prompt Fission Gamma-ray Studies at DANCE. Physics Procedia, 2014, 59, 101-106.	1.2	9
46	Properties of prompt-fissionÎ³rays. Physical Review C, 2014, 90, .	2.9	55
47	Modeling the Emission of Prompt Fission Î³ Rays for Fundamental Physics and Applications. Physics Procedia, 2014, 59, 83-88.	1.2	10
48	Isomer production ratios and the angular momentum distribution of fission fragments. Physical Review C, 2013, 88, .	2.9	32
49	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
50	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
51	Prompt Fission Neutrons and Gamma Rays in a Monte Carlo Hauser-Feshbach Formalism. Physics Procedia, 2013, 47, 39-46.	1.2	14
52	Effective interactions and operators in the no-core shell model. Progress in Particle and Nuclear Physics, 2013, 69, 182-224.	14.4	10
53	PromptÎ³-ray production in neutron-induced fission of239Pu. Physical Review C, 2013, 87, .	2.9	36
54	MONTE CARLO HAUSER-FESHBACH CALCULATIONS OF PROMPT FISSION NEUTRONS AND GAMMA RAYS. , 2013, , .		0

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55	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
56	Two and three nucleons in a trap, and the continuum limit. Physical Review C, 2012, 85, .	2.9	25
57	<i>Ab initio</i>shell model with a core. Journal of Physics: Conference Series, 2011, 267, 012016.	0.4	0
58	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
59	Electric dipole moments of light nuclei from chiral effective field theory. Physical Review C, 2011, 84, .	2.9	66
60	Isovector giant dipole resonance from the 3D time-dependent density functional theory for superfluid nuclei. Physical Review C, 2011, 84, .	2.9	104
61	An effective field theory approach to two trapped particles. Annals of Physics, 2010, 325, 1644-1666.	2.8	48
62	Effective interactions for light nuclei: an effective (field theory) approach. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 064033.	3.6	24
63	Three and four harmonically trapped particles in an effective-field-theory framework. Physical Review A, 2010, 82, .	2.5	41
64	Nuclear electric dipole moment of [sup 3]He. , 2009, , .		0
65	Collapse of the random-phase approximation: Examples and counter-examples from the shell model. Physical Review C, 2009, 80, .	2.9	0
66	Electric dipole polarizabilities of hydrogen and helium isotopes. Physical Review C, 2009, 79, .	2.9	20
67	Effective operators from exact many-body renormalization. Physical Review C, 2009, 80, .	2.9	31
68	Recent developments in no-core shell-model calculations. Journal of Physics G: Nuclear and Particle Physics, 2009, 36, 083101.	3.6	299
69	Nuclear electric dipole moment of 3He. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 665, 168-172.	4.1	46
70	No-Core Shell Model as an Effective Theory. AIP Conference Proceedings, 2008, , .	0.4	0
71	<i>Ab-initio</i>shell model with a core. Physical Review C, 2008, 78, .	2.9	66
72	Publisher's Note: Effective theory for trapped few-fermion systems [Phys. Rev. A76, 063613 (2007)]. Physical Review A, 2008, 77, .	2.5	0

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73	Effective theory for trapped few-fermion systems. Physical Review A, 2007, 76, .	2.5	71
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	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
77	NO-CORE SHELL MODEL FOR NUCLEAR STRUCTURE AND REACTIONS. , 2007, , .		0
78	Effective Interactions and Operators in Nuclei within the No-Core Shell Model. AIP Conference Proceedings, 2006, , .	0.4	0
79	New developments within the no-core shell model. Journal of Physics: Conference Series, 2006, 49, 1-6.	0.4	0
80	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
81	Long- and short-range correlations in theab-initiono-core shell model. Physical Review C, 2006, 73, .	2.9	23
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	Effective operators in the NCSM formalism. European Physical Journal A, 2005, 25, 489-490.	2.5	1
84	Ab initio No-Core Shell Model --Recent results and future prospects. European Physical Journal A, 2005, 25, 475-480.	2.5	23
85	Ab Initio Large-Basis No-Core Shell Model. AIP Conference Proceedings, 2005, , .	0.4	0
86	Effective operators within theab initiono-core shell model. Physical Review C, 2005, 71, .	2.9	71
87	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
88	ELECTROMAGNETIC TRANSITIONS WITH EFFECTIVE OPERATORS. International Journal of Modern Physics E, 2005, 14, 95-103.	1.0	16
89	THE AB INITIO LARGE-BASIS NO-CORE SHELL MODEL. , 2005, , .		0
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91	Effective operators in the NCSM formalism. , 2005, , 489-490.		0
92	Gamow-Teller transitions and deformation in the proton-neutron random phase approximation. Physical Review C, 2004, 69, .	2.9	25
93	The Ab Initio Large-Basis No-Core Shell Model. AIP Conference Proceedings, 2004, , .	0.4	0
94	Tests of the random phase approximation for transition strengths. Physical Review C, 2003, 67, .	2.9	12
95	SU(3) versus deformed Hartree-Fock state. Physical Review C, 2002, 66, .	2.9	3
96	Random phase approximation vs exact shell-model correlation energies. Physical Review C, 2002, 66, .	2.9	28
97	Scalar ground-state observables in the random phase approximation. Physical Review C, 2002, 66, .	2.9	6
98	Effective interactions for multistep processes. Nuclear Physics A, 2001, 693, 616-629.	1.5	14
99	Particle-hole state densities with nonequidistant single-particle levels. Physical Review C, 1998, 58, 295-306.	2.9	21