Pavel Nadtochy

List of Publications by Year
in descending order

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78	1,395	430874	361022
papers	citations	18 h-index	35 g-index

80	80	80	333
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Three-dimensional Langevin calculations of fission fragment mass-energy distribution from excited compound nuclei. Physical Review C, 2001, 63, .	2.9	147
2	More detailed study of fission dynamics in fusion-fission reactions within a stochastic approach. Physical Review C, 2002, 65, .	2.9	146
3	THREE-DIMENSIONAL LANGEVIN CALCULATIONS OF FISSION FRAGMENT MASS-ENERGY DISTRIBUTION FROM EXCITED COMPOUND NUCLEI. , 2002, , .		82
4	Application of a temperature-dependent liquid-drop model to dynamical Langevin calculations of fission-fragment distributions of excited nuclei. Physical Review C, 2008, 78, .	2.9	71
5	Four-dimensional Langevin dynamics of heavy-ion-induced fission. Physical Review C, 2012, 85, .	2.9	70
6	Fission rate in multi-dimensional Langevin calculations. Physical Review C, 2007, 75, .	2.9	64
7	First Experiment on Fission Transients in Highly Fissile Spherical Nuclei Produced by Fragmentation of Radioactive Beams. Physical Review Letters, 2007, 99, 042701.	7.8	63
8	Fragmentation of spherical radioactive heavy nuclei as a novel probe of transient effects in fission. Physical Review C, 2010, 81, .	2.9	57
9	Incorporation of a tilting coordinate into the multidimensional Langevin dynamics of heavy-ion-induced fission: Analysis of experimental data from fusion-fission reactions. Physical Review C, 2014, 89, .	2.9	56
10	Dynamical interpretation of average fission-fragment kinetic energy systematics and nuclear scission. Physical Review C, 2005, 72, .	2.9	45
11	Nuclear scission and fission-fragment kinetic-energy distribution: Study within three-dimensional Langevin dynamics. Nuclear Physics A, 2008, 799, 56-83.	1.5	40
12	Fission fragment distributions within dynamical approach. European Physical Journal A, 2017, 53, 1.	2.5	39
13	Consistent application of the finite-range liquid-drop model to Langevin fission dynamics of hot rotating nuclei. Journal of Physics G: Nuclear and Particle Physics, 2003, 29, 2365-2380.	3.6	38
14	Fission dynamics of intermediate-fissility systems: A study within a stochastic three-dimensional approach. Physical Review C, 2015, 92, .	2.9	36
15	Examination of isospin effects in multi-dimensional Langevin fission dynamics. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 685, 258-262.	4.1	35
16	Dissipative effects in spallation-induced fission of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">Pb</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>208</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>at high excitation energies. Physical Review C, 2015, 91, .	2.9	28
17	Evaporation and fission decay of 132Ce compound nuclei at Ex=122 MeV: some limitations of the statistical model. European Physical Journal A, 2011, 47, 1.	2.5	27
18	High-precision measurement of total fission cross sections in spallation reactions of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>208</mml:mn></mml:msup></mml:math>Pb and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>238</mml:mn></mml:msup></mml:math>U. Physical Review C, 2013, 87, .	2.9	19

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19	On current ambiguity in the interpretation of fission at intermediate excitation energy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 737, 289-292.	4.1	19
20	Description of isotopic fission-fragment distributions within the Langevin approach. Physical Review C, 2015, 91, .	2.9	18
21	Evaporation channel as a tool to study fission dynamics. Nuclear Physics A, 2018, 971, 21-34.	1.5	16
22	Clustering effects inCr48composite nuclei produced via theMg24+Mg24reaction. Physical Review C, 2016, 93, .	2.9	15
23	Langevin description of mass distributions of fragments originating from the fission of excited nuclei. Physics of Atomic Nuclei, 2000, 63, 1865-1873.	0.4	14
24	Reduction coefficient in surface-plus-window dissipation: Analysis of experimental data from fusion-fission reactions within a stochastic approach. Physics of Atomic Nuclei, 2003, 66, 1203-1210.	0.4	14
25	Impact of non-Markovian effects on the fission rate and time. Physics of Atomic Nuclei, 2008, 71, 2007-2017.	0.4	14
26	Critical insight into the influence of the potential energy surface on fission dynamics. Physical Review C, 2011, 84, .	2.9	14
27	Dissipation of the tilting degree of freedom in heavy-ion-induced fission from four-dimensional Langevin dynamics. European Physical Journal A, 2016, 52, 1.	2.5	14
28	Investigation of dissipation in the tilting degree of freedom from four-dimensional Langevin dynamics of heavy-ion-induced fission. Journal of Physics G: Nuclear and Particle Physics, 2015, 42, 045107.	3.6	12
29	Going beyond statistical models for fission in the Businaro-Gallone region. Physical Review C, 2016, 94, .	2.9	12
30	Langevin fission dynamics of hot rotating nuclei: Systematic application to Z 2/A=34â€“42 heavy nuclei. Physics of Atomic Nuclei, 2002, 65, 799-813.	0.4	11
31	Influence of fusion dynamics on fission observables: A multidimensional analysis. Physical Review C, 2018, 97, .	2.9	11
32	Competing asymmetric fusion-fission and quasifission in neutron-deficient sub-lead nuclei. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 803, 135297.	4.1	11
33	Probabilistic scission of a fissile nucleus into fragments. Physics of Atomic Nuclei, 2003, 66, 618-631.	0.4	10
34	Fission dynamics in systems of intermediate fissility. Journal of Physics G: Nuclear and Particle Physics, 2019, 46, 115111.	3.6	9
35	Examining fine potential energy effects in high-energy fission dynamics. Physical Review C, 2013, 88, .	2.9	8
36	Dynamical evolution of spectator systems produced in ultrarelativistic heavy-ion collisions. Physical Review C, 2018, 97, .	2.9	8

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37	New procedure to determine the mass-angle correlation of quasifission. Physical Review C, 2019, 100, .	2.9	8
38	Rate of excited-nucleus fission within a multidimensional stochastic approach. Physics of Atomic Nuclei, 2009, 72, 1992-2004.	0.4	7
39	Clustering effects in 48Cr composite nucleus produced via the reaction 24Mg + 24Mg at the excitation energy of 60 MeV. Journal of Physics: Conference Series, 2013, 436, 012054.	0.4	6
40	Coulomb chronometry to probe the decay mechanism of hot nuclei. Physical Review C, 2015, 92, .	2.9	6
41	The software and hardware complex for automatic feed control of steam generators in the power unit of a nuclear power plant. Automation and Remote Control, 2015, 76, 2241-2248.	0.8	6
42	Mass-energy distribution of fragments from the fission of excited nuclei within three-dimensional Langevin dynamics. Physics of Atomic Nuclei, 2001, 64, 861-869.	0.4	5
43	Investigation of the reaction 208Pb(18O, f): Fragment spins and phenomenological analysis of the angular anisotropy of fission fragments. Physics of Atomic Nuclei, 2007, 70, 1679-1693.	0.4	5
44	FRAGMENTATION OF RADIOACTIVE BEAMS FOR TAILORING FISSION TRANSIENTS. International Journal of Modern Physics E, 2009, 18, 2150-2154.	1.0	5
45	On some limitations of current Langevin calculations. Physica Scripta, 2013, T154, 014004.	2.5	5
46	Influence of orientation degree of freedom on fission dynamics of higly excited nuclei. EPJ Web of Conferences, 2013, 62, 07001.	0.3	5
47	The role of isospin in fusion evaporation reactions. Journal of Physics: Conference Series, 2011, 267, 012053.	0.4	4
48	Fission Fragment Mass Distribution as a Probe of the Shape-dependent Congruence Energy Term in the Macroscopic Models. Acta Physica Polonica B, 2013, 44, 293.	0.8	4
49	Realization of the automatic control system with fuzzy-logic static error compensation in the computer-aided design environment Teprol. Automation and Remote Control, 2015, 76, 157-165.	0.8	4
50	Statistics vs. dynamics in fission: light and shade from systems of intermediate fissility. , 2009, , .		3
51	Clustering effects in48Cr composite nuclei produced via24Mg +24Mg reaction. EPJ Web of Conferences, 2012, 21, 02002.	0.3	3
52	Fission dynamics: The quest of a temperature dependent nuclear viscosity. EPJ Web of Conferences, 2013, 62, 07004.	0.3	3
53	Analysis of Experimental Data from Fusion-fission Reactions Within Four-dimensional Langevin Dynamics. Acta Physica Polonica B, 2015, 46, 579.	0.8	3
54	Evaporation and fission decay of Er158 composite nuclei within the statistical model. Physical Review C, 2020, 102, .	2.9	3

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55	Dynamical description of the moments of the energy distribution of fission fragments and scission of a fissile nucleus. Physics of Atomic Nuclei, 2007, 70, 1846-1858.	0.4	2
56	Potential energy models of excited compound nucleus. Computer Physics Communications, 2021, 258, 107605.	7.5	2
57	Transport coefficients for modeling fission dynamics. Computer Physics Communications, 2022, 275, 108308.	7.5	2
58	Level-density parameter of hot rotating fissioning nuclei within the finite-range liquid-drop model. Nuclear Physics A, 2004, 734, E37-E40.	1.5	1
59	Fission dynamics In [sup 132]Ce composite nuclei at E[sub x]â€‰=â€‰122â€‰MeV. , 2009, , .		1
60	Statistics vs. dynamics: hints from systems of intermediate fissility. Journal of Physics: Conference Series, 2011, 282, 012012.	0.4	1
61	Pre- and post- scission particle emission in 3D Langevin calculations with various macroscopic potentials. EPJ Web of Conferences, 2013, 62, 02002.	0.3	1
62	Fission dynamics with systems of intermediate fissility. Pramana - Journal of Physics, 2015, 85, 345-355.	1.8	1
63	Dissipation strength of the tilting degree of freedom in fusion-fission reactions. EPJ Web of Conferences, 2016, 117, 08015.	0.3	1
64	Is nuclear viscosity dependent on temperature?. EPJ Web of Conferences, 2018, 193, 01002.	0.3	1
65	First Estimation of the Fission Dynamics of the Spectator Created in Heavy-ion Collisions. Acta Physica Polonica B, Proceedings Supplement, 2017, 10, 113.	0.1	1
66	The Businaro--Gallone Region: A Playground for Dynamical Models of Fission?. Acta Physica Polonica B, Proceedings Supplement, 2015, 8, 685.	0.1	1
67	Nuclear Viscosity in the Fission of 132Ce Composite Nuclei at Ex=122 MeV. AIP Conference Proceedings, 2006, , .	0.4	0
68	Tailoring fission dynamics using fragmentation of radioactive heavy ion beams. , 2009, , .		0
69	Fission rate and transient time of highly excited nuclei in multi-dimensional stochastic calculations. , 2010, , .		0
70	Inï¬‚uence of the potential energy landscape on the ï¬ssion dynamics. EPJ Web of Conferences, 2011, 17, 16006.	0.3	0
71	Sequential fissions of heavy nuclear systems. EPJ Web of Conferences, 2013, 62, 07006.	0.3	0
72	Investigating the dynamics of fission with low-fissility highly-excited nuclei. EPJ Web of Conferences, 2013, 62, 06004.	0.3	0

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73	Transient effects in highly-excited fissioning systems. Journal of Physics: Conference Series, 2014, 569, 012075.	0.4	0
74	A study on the dependence of nuclear viscosity on temperature. Journal of Physics: Conference Series, 2018, 1014, 012018.	0.4	0
75	FISSION DYNAMICS IN SYSTEMS OF INTERMEDIATE FISSILITY WITH 8Ï€LP APPARATUS. , 2005, , .		0
76	NEW CLUES ON FISSION DYNAMICS FROM SYSTEMS OF INTERMEDIATE FISSILITY. , 2008, , .		0
77	What Shall We Do with the Spectator System in Ultrarelativistic Heavy-ion Collisions?. Acta Physica Polonica B, 2019, 50, 311.	0.8	0
78	Role of the Spectator System in Electromagnetic Effects. Acta Physica Polonica B, Proceedings Supplement, 2019, 12, 361.	0.1	0