

Takashi Nakatsukasa

List of Publications by Year in descending order

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92
papers

1,989
citations

279798

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all docs

92
docs citations

92
times ranked

812
citing authors

#	ARTICLE	IF	CITATIONS
1	Time-dependent density-functional description of nuclear dynamics. <i>Reviews of Modern Physics</i> , 2016, 88, .	45.6	185
2	Linear response theory in the continuum for deformed nuclei: Green's function vs time-dependent Hartree-Fock with the absorbing boundary condition. <i>Physical Review C</i> , 2005, 71, .	2.9	149
3	Finite amplitude method for the solution of the random-phase approximation. <i>Physical Review C</i> , 2007, 76, .	2.9	139
4	Canonical-basis time-dependent Hartree-Fock-Bogoliubov theory and linear-response calculations. <i>Physical Review C</i> , 2010, 82, .	2.9	133
5	Photoabsorption spectra in the continuum of molecules and atomic clusters. <i>Journal of Chemical Physics</i> , 2001, 114, 2550-2561.	3.0	91
6	Emergence of pygmy dipole resonances: Magic numbers and neutron skins. <i>Physical Review C</i> , 2011, 84, .	2.9	88
7	Finite amplitude method for the quasiparticle random-phase approximation. <i>Physical Review C</i> , 2011, 84, .	2.9	79
8	Self-consistent calculation of nuclear photoabsorption cross sections: Finite amplitude method with Skyrme functionals in the three-dimensional real space. <i>Physical Review C</i> , 2009, 80, .	2.9	72
9	Microscopic description of large-amplitude shape-mixing dynamics with inertial functions derived in local quasiparticle random-phase approximation. <i>Physical Review C</i> , 2010, 82, .	2.9	64
10	Microscopic structure of high-spin vibrational excitations in superdeformed Hg190,192,194. <i>Physical Review C</i> , 1996, 53, 2213-2226.	2.9	63
11	Non-local mean field effect on nuclei near $Z < 64$ sub-shell. <i>Physical Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2009, 680, 428-431.	4.1	58
12	Dipole responses in Nd and Sm isotopes with shape transitions. <i>Physical Review C</i> , 2011, 83, .	2.9	55
13	Microscopic description of oblate-prolate shape mixing in proton-rich Se isotopes. <i>Physical Review C</i> , 2009, 80, .	2.9	49
14	Systematic investigation of low-lying dipole modes using the canonical-basis time-dependent Hartree-Fock-Bogoliubov theory. <i>Physical Review C</i> , 2014, 90, .	2.9	49
15	Shape fluctuations in the ground and excited states of ^{30}Mg and ^{32}Mg . <i>Physical Review C</i> , 2012, 85, 044307.	2.9	47
16	Time-dependent Hartree-Fock studies of the dynamical fusion threshold. <i>EPJ Web of Conferences</i> , 2012, 38, 09003.	0.3	47
17	Shape evolution of giant resonances in Nd and Sm isotopes. <i>Physical Review C</i> , 2013, 88, .	2.9	42
18	Feasibility of the finite-amplitude method in covariant density functional theory. <i>Physical Review C</i> , 2013, 87, .	2.9	42

#	ARTICLE	IF	CITATIONS
19	Octupole deformation in the nuclear chart based on the 3D Skyrme Hartree-Fock plus BCS model. <i>Physica Scripta</i> , 2017, 92, 064005.	2.5	38
20	Shape transition and fluctuations in neutron-rich Cr isotopes around $N=40$. <i>Physical Review C</i> , 2012, 86, .	2.9	35
21	Density functional approaches to collective phenomena in nuclei: Time-dependent density functional theory for perturbative and non-perturbative nuclear dynamics. <i>Progress of Theoretical and Experimental Physics</i> , 2012, 2012, .	6.6	34
22	Efficient calculation for the quasiparticle random-phase approximation matrix. <i>Physical Review C</i> , 2013, 87, .	2.9	31
23	Low-energy $E1$ strength in select nuclei: Possible constraints on neutron skin and symmetry energy. <i>Physical Review C</i> , 2013, 88, .	2.9	24
24	Energy-density-functional calculations including proton-neutron mixing. <i>Physical Review C</i> , 2013, 88, .	2.9	24
25	Octupole Vibrations in the Harmonic-Oscillator-Potential Model with Axis Ratio Two to One. <i>Progress of Theoretical Physics</i> , 1992, 87, 607-626.	2.0	22
26	Octupole correlations in excited bands of superdeformed ^{152}Dy . <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1995, 343, 19-24.	4.1	21
27	Finite-amplitude method for collective inertia in spontaneous fission. <i>Physical Review C</i> , 2021, 103, .	2.9	19
28	Application of density-functional theory to line broadening: Cs atoms in liquid helium. <i>Physical Review A</i> , 2002, 65, .	2.5	18
29	Configuration mixing calculation for complete low-lying spectra with a mean-field Hamiltonian. <i>Physical Review C</i> , 2006, 74, .	2.9	16
30	Microscopic derivation of the quadrupole collective Hamiltonian for shape coexistence/mixing dynamics. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2016, 43, 024006.	3.6	16
31	Microscopic derivation of the Bohr-Mottelson collective Hamiltonian and its application to quadrupole shape dynamics. <i>Physica Scripta</i> , 2016, 91, 063014.	2.5	16
32	Fragmentation of electric dipole strength in $N=82$ isotones. <i>Physical Review C</i> , 2012, 85, .	2.9	15
33	Self-consistent collective coordinate for reaction path and inertial mass. <i>Physical Review C</i> , 2016, 94, .	2.9	14
34	Diabatic and adiabatic collective motion in a model pairing system. <i>Physical Review C</i> , 1998, 57, 1192-1203.	2.9	13
35	Adiabatic self-consistent collective path in nuclear fusion reactions. <i>Physical Review C</i> , 2017, 96, .	2.9	13
36	Quantal rotation and its coupling to intrinsic motion in nuclei. <i>Physica Scripta</i> , 2016, 91, 073008.	2.5	12

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37	Multipole modes of excitation in triaxially deformed superfluid nuclei. <i>Physical Review C</i> , 2017, 96, .	2.9	12
38	Coordinate-space solver for finite-temperature Hartree-Fock-Bogoliubov calculations using the shifted Krylov method. <i>Physical Review C</i> , 2020, 101, .	2.9	12
39	3D Real-Space Calculation of the Continuum Response. <i>Progress of Theoretical Physics Supplement</i> , 2002, 146, 447-451.	0.1	11
40	Open problems in nuclear structure near drip lines. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2010, 37, 064017.	3.6	9
41	N-body nuclear forces at short distances in holographic QCD. <i>Physical Review D</i> , 2010, 81, .	4.7	9
42	Self-consistent band calculation of the slab phase in the neutron-star crust. <i>Physical Review C</i> , 2019, 100, .	2.9	9
43	Effects of Octupole Vibrations on Quasiparticle Modes of Excitation in Superdeformed ¹⁹³ Hg. <i>Progress of Theoretical Physics</i> , 1993, 89, 847-854.	2.0	9
44	Collective coordinates, shape transitions, and shape coexistence: A microscopic approach. <i>Physical Review C</i> , 1998, 58, 3397-3406.	2.9	8
45	Local harmonic approaches with approximate cranking operators. <i>Physical Review C</i> , 1999, 61, .	2.9	8
46	Oscillator strength distribution in C3H6 isomers studied with the time-dependent density functional method in the continuum. <i>Chemical Physics Letters</i> , 2003, 374, 613-619.	2.6	7
47	Repulsive Aspects of Pairing Correlation in Nuclear Fusion Reaction. , 2015, , .		7
48	Pairing Effects in Nuclear Fusion Reaction. , 2014, , .		6
49	Finite-amplitude method: an extension to the covariant density functionals. <i>Physica Scripta</i> , 2014, 89, 054018.	2.5	6
50	Real-time Skyrme TDHF dynamics of giant resonances. <i>Nuclear Physics A</i> , 2007, 788, 349-354.	1.5	4
51	MICROSCOPIC APPROACH TO ADIABATIC LARGE-AMPLITUDE QUADRUPOLE COLLECTIVE DYNAMICS IN Se ISOTOPES. <i>Modern Physics Letters A</i> , 2010, 25, 1796-1799.	1.2	4
52	A basis of cranking operators for the pairing-plus-quadrupole model. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 1999, 25, L23-L28.	3.6	3
53	Collective Path Connecting the Oblate and Prolate Local Minima in ⁶⁸ Se. <i>Progress of Theoretical Physics</i> , 2004, 112, 363-368.	2.0	3
54	Skyrme energy-density functional approach to collective dynamics. <i>Journal of Physics: Conference Series</i> , 2011, 321, 012017.	0.4	3

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55	Systematic investigation of E_{β} strength for the isotopes from $Z = 28$ to 50. Journal of Physics: Conference Series, 2013, 445, 012021.	0.4	3
56	Finite amplitude method in linear response TDDFT calculations. Journal of Physics: Conference Series, 2014, 533, 012054.	0.4	3
57	Comparative study of the requantization of the time-dependent mean field for the dynamics of nuclear pairing. Physical Review C, 2018, 97, .	2.9	3
58	Multipole Modes for Triaxially Deformed Superfluid Nuclei. , 2018, , .		3
59	Low-lying collective excited states in nonintegrable pairing models based on the stationary-phase approximation to the path integral. Physical Review C, 2018, 98, .	2.9	2
60	Collective Inertial Masses in Nuclear Reactions. Frontiers in Physics, 2020, 8, .	2.1	2
61	Title is missing!. European Physical Journal D, 1998, 48, 813-816.	0.4	1
62	Continuum Response and Reaction in Neutron-Rich Be Nuclei. AIP Conference Proceedings, 2004, , .	0.4	1
63	Fusion reaction of halo nuclei: A real-time wave-packet method for three-body tunneling dynamics. AIP Conference Proceedings, 2006, , .	0.4	1
64	Collective path and inertial mass of large-amplitude collective dynamics: Application to shape coexistence. , 2009, , .		1
65	RESPONSE FUNCTIONS IN THE CONTINUUM OF DEFORMED NUCLEI STUDIED WITH THE TIME-DEPENDENT DENSITY-FUNCTIONAL CALCULATIONS. International Journal of Modern Physics E, 2009, 18, 2088-2092.	1.0	1
66	SYSTEMATIC CALCULATION OF ELECTRIC DIPOLE STRENGTH WITH SKYRME-HF PLUS RPA. Modern Physics Letters A, 2010, 25, 1931-1934.	1.2	1
67	Shell and Neutron-Skin Effects on Pygmy Dipole Resonances. Progress of Theoretical Physics Supplement, 2012, 196, 365-370.	0.1	1
68	Study of pygmy dipole resonance with a new time-dependent mean field theory. Journal of Physics: Conference Series, 2012, 381, 012104.	0.4	1
69	Nuclear Reaction Path and Requantization of TDDFT. , 2018, , .		1
70	Time-Dependent Density-Functional Theory for Oscillator Strength Distribution. , 2010, , 65-86.		1
71	Self-consistent collective subspaces and diabatic/adiabatic motion in nuclei. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 815-817.	3.6	0
72	TDDFT APPROACH TO PHOTOABSORPTION IN EVEN-EVEN NUCLEI. International Journal of Modern Physics A, 2009, 24, 2159-2167.	1.5	0

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73	PHENOMENOLOGICAL ANALYSIS OF THE OBLATE-PROLATE SYMMETRY BREAKING IN TRIAXIAL DEFORMATION DYNAMICS. Modern Physics Letters A, 2010, 25, 2018-2019.	1.2	0
74	THE FINITE AMPLITUDE METHOD FOR THE QRPA. Modern Physics Letters A, 2010, 25, 1999-2000.	1.2	0
75	MICROSCOPIC ANALYSIS OF SHAPE MIXING IN LOW-LYING STATES OF PROTON-RICH Kr ISOTOPES. Modern Physics Letters A, 2010, 25, 2020-2021.	1.2	0
76	Microscopic derivation of five-dimensional collective Hamiltonian of large-amplitude quadrupole motion: application to shape coexistence in proton-rich Se isotopes. , 2010, , .		0
77	Large-amplitude quadrupole collective dynamics of shape coexistence phenomena in proton-rich Se and Kr isotopes. , 2010, , .		0
78	Density functional approaches to atomic nuclei. Journal of Physics: Conference Series, 2011, 302, 012050.	0.4	0
79	Microscopic description of large-amplitude shape-mixing dynamics with local QRPA inertial functions. , 2011, , .		0
80	Cb-TDHF Calculation for the Low-Lying $E1$ Strength of Heavy Nuclei around the r -Process Path. Progress of Theoretical Physics Supplement, 2012, 196, 316-321.	0.1	0
81	Microscopic Analysis of Shape Coexistence/Mixing and Shape Phase Transition in Neutron-Rich Nuclei around ^{32}Mg . Progress of Theoretical Physics Supplement, 2012, 196, 328-333.	0.1	0
82	Microscopic approach to large-amplitude deformation dynamics with local QRPA inertial masses. Journal of Physics: Conference Series, 2012, 381, 012103.	0.4	0
83	Real-time calculations of many-body dynamics in quantum systems. Journal of Physics: Conference Series, 2012, 402, 012032.	0.4	0
84	Density Functional Calculations for the Neutron Star Matter at Subnormal Density. , 2017, , .		0
85	ATOMIC SPECTRA IN A HELIUM BUBBLE. , 2002, , .		0
86	RESPONSE IN THE CONTINUUM FOR LIGHT DEFORMED NEUTRON-RICH NUCLEI. , 2004, , .		0
87	MICROSCOPIC DYNAMICS OF SHAPE COEXISTENCE PHENOMENA AROUND ^{68}Se AND ^{72}Kr . , 2008, , .		0
88	MICROSCOPIC DYNAMICS OF SHAPE COEXISTENCE PHENOMENA AROUND ^{68}Se AND ^{72}Kr . , 2008, , .		0
89	Nuclear chart of deformation. Atomos, 2019, 61, 610-615.	0.0	0
90	Nuclear Structure and Reaction with Quantum Shape Fluctuation. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
91	Self-consistent energy density functional approaches to the crust of neutron stars. EPJ Web of Conferences, 2022, 260, 11041.	0.3	0
92	Microscopic collective inertial masses for nuclear reaction in the presence of nucleonic effective mass. Physical Review C, 2022, 105, .	2.9	0