

# Nikolay Minkov

## List of Publications by Year in descending order

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89  
papers

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361413

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90  
all docs

90  
docs citations

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times ranked

513  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bohr Hamiltonian with a deformation-dependent mass term for the Davidson potential. Physical Review C, 2011, 83, .	2.9	92
2	Bohr Hamiltonian with a deformation-dependent mass term for the Kratzer potential. Physical Review C, 2013, 88, .	2.9	89
3	Exactly separable version of the Bohr Hamiltonian with the Davidson potential. Physical Review C, 2007, 76, .	2.9	83
4	Ground state bands of the E(5) and X(5) critical symmetries obtained from Davidson potentials through a variational procedure. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 584, 40-47.	4.1	75
5	Sequence of potentials lying between the U(5) and X(5) symmetries. Physical Review C, 2004, 69, .	2.9	70
6	Sequence of potentials interpolating between the U(5) and E(5) symmetries. Physical Review C, 2004, 69, .	2.9	67
7	Reduced Transition Probabilities for the Gamma Decay of the 7.8ÅeV Isomer in $\text{Th}^{229\text{m}}$ Physical Review Letters, 2017, 118, 212501.	7.8	66
8	Analytic description of critical-point actinides in a transition from octupole deformation to octupole vibrations. Physical Review C, 2005, 71, .	2.9	59
9	Nuclear collective motion with a coherent coupling interaction between quadrupole and octupole modes. Physical Review C, 2006, 73, .	2.9	50
10	E(5) and X(5) critical point symmetries obtained from Davidson potentials through a variational procedure. Physical Review C, 2004, 70, .	2.9	42
11	Non-yrast nuclear spectra in a model of coherent quadrupole-octupole motion. Physical Review C, 2012, 85, .	2.9	42
12	$I^{\pi}=1$ staggering in octupole bands of light actinides: Beat patterns. Physical Review C, 2000, 62, .	2.9	41
13	Proxy-SU(3) symmetry in heavy deformed nuclei. Physical Review C, 2017, 95, .	2.9	38
14	Analytic predictions for nuclear shapes, prolate dominance, and the prolate-oblate shape transition in the proxy-SU(3) model. Physical Review C, 2017, 95, .	2.9	38
15	Bohr Hamiltonian with deformation-dependent mass term. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 683, 264-271.	4.1	33
16	Parity shift and beat staggering structure of octupole bands in a collective model for quadrupole-octupole-deformed nuclei. Journal of Physics G: Nuclear and Particle Physics, 2006, 32, 497-509.	3.6	31
17	The islands of shape coexistence within the Elliott and the proxy-SU(3) Models. European Physical Journal A, 2021, 57, 1.	2.5	27
18	Coherent quadrupole-octupole modes and split parity-doublet spectra in odd- $A$ nuclei. Physical Review C, 2007, 76, .	2.9	24

#	ARTICLE	IF	CITATIONS
19	<a href="#">Theoretical Predictions for the Magnetic Dipole Moment of <math>^{229}\text{Th}</math></a> Physical Review Letters, 2019, 122, 162502.	7.8	24
20	Octupole collectivity in $^{98}\text{Mo}$ , $^{100}\text{Mo}$ , $^{102}\text{Mo}$ . Physical Review C, 2007, 75, .	2.9	22
21	Inversion of parity splitting in alternating parity bands at high angular momenta. Physical Review C, 2005, 72, .	2.9	20
22	High-K isomers as probes of octupole collectivity in heavy nuclei. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 694, 119-122.	4.1	20
23	Octupole deformation in light actinides within an analytic quadrupole octupole axially symmetric model with a Davidson potential. Physical Review C, 2015, 91, .	2.9	20
24	Bohr Hamiltonian with a deformation-dependent mass term: physical meaning of the free parameter. Journal of Physics G: Nuclear and Particle Physics, 2015, 42, 095104.	3.6	20
25	Proxy-SU(3) symmetry in the shell model basis. European Physical Journal A, 2020, 56, 1.	2.5	20
26	Ground $\beta$ -band mixing and odd-even staggering in heavy deformed nuclei. Physical Review C, 2000, 61, .	2.9	19
27	$I^\pi = 4^-$ and $I^\pi = 8^-$ bifurcations in rotational bands of diatomic molecules. Physical Review A, 1996, 54, R2533-R2536.	2.5	18
28	Effect of core polarization on magnetic dipole moments in deformed odd-mass nuclei. Physical Review C, 2015, 91, .	2.9	18
29	Mass Measurements of Neutron-Deficient Yb Isotopes and Nuclear Structure at the Extreme Proton-Rich Side of the $N = 82$ Shell. Physical Review Letters, 2021, 127, 112501.	7.8	18
30	Electric quadrupole channel of the 7.8 eV $^{229}\text{Th}$ transition. Physical Review C, 2018, 97, .	2.9	17
31	Broken SU(3) symmetry in deformed even-even nuclei. Physical Review C, 1997, 55, 2345-2360.	2.9	16
32	$^{229}\text{Th}$ isomer from a nuclear model perspective. Physical Review C, 2021, 103, .	2.9	15
33	$\beta$ -patterns for the odd-even staggering in octupole bands from a quadrupole-octupole Hamiltonian. Physical Review C, 2001, 63, .	2.9	13
34	Ground $\beta$ -band coupling in heavy deformed nuclei and SU(3) contraction limit. Physical Review C, 1999, 60, .	2.9	12
35	COLLECTIVE EXCITED STATES IN EVEN-EVEN NUCLEI WITH QUADRUPOLE AND OCTUPOLE DEFORMATIONS. International Journal of Modern Physics E, 2012, 21, 1250044.	1.0	12
36	Evolution of collectivity in a ground $\beta$ -band mixing scheme for even-even transitional nuclei. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, 427-444.	3.6	11

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37	Coriolis interaction in nuclear single-particle states with mixed parity. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 025103.	3.6	11
38	Submicrosecond isomer in $^{117}\text{Rh}$ and the role of triaxiality in its electromagnetic decay rate. Physical Review C, 2013, 88, .	2.9	11
39	Parameter-free predictions for the collective deformation variables $\hat{I}^2$ and $\hat{I}^3$ within the pseudo-SU(3) scheme. European Physical Journal: Special Topics, 2020, 229, 2367-2387.	2.6	11
40	Why nuclear forces favor the highest weight irreducible representations of the fermionic SU(3) symmetry. European Physical Journal A, 2021, 57, 1.	2.5	11
41	EFFECTS OF CORE POLARIZATION AND PAIRING CORRELATIONS ON SOME GROUND-STATE PROPERTIES OF DEFORMED ODD-MASS NUCLEI WITHIN THE HIGHER TAMM-DANCOFF APPROACH. International Journal of Modern Physics E, 2011, 20, 252-258.	1.0	10
42	A model for quasi-parity-doublet spectra in odd-mass nuclei. Physica Scripta, 2013, T154, 014017.	2.5	10
43	$\hat{I}^2$ -staggering in rotational bands of diatomic molecules as a manifestation of interband interactions. Physical Review A, 1999, 60, 253-261.	2.5	9
44	Coriolis interaction in quadrupole-octupole deformed nuclei. Journal of Physics G: Nuclear and Particle Physics, 2009, 36, 025108.	3.6	9
45	Magnetic moments of K isomers as indicators of octupole collectivity. European Physical Journal A, 2012, 48, 1.	2.5	8
46	Non-yrast spectra of odd-A nuclei in a model of coherent quadrupole-octupole motion. Physical Review C, 2013, 88, .	2.9	8
47	Influence of the octupole mode on nuclear high-K isomeric properties. Physica Scripta, 2014, 89, 054021.	2.5	8
48	Microscopic origin of shape coexistence in the N=90, Z=64 region. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 829, 137099.	4.1	7
49	Shell correlations in the SUq(2) rotor model. Journal of Physics G: Nuclear and Particle Physics, 1994, 20, L67-L72.	3.6	5
50	K-isomeric states in well-deformed heavy even-even nuclei. Physical Review C, 2022, 105, .	2.9	5
51	Quadrupole-Octupole Collectivity and Fine Structure of Nuclear Rotational Spectra. Progress of Theoretical Physics Supplement, 2002, 146, 597-598.	0.1	4
52	Application of the triaxial quadrupole-octupole rotor to the ground and negative-parity levels of actinide nuclei. International Journal of Modern Physics E, 2016, 25, 1650022.	1.0	4
53	Signatures of enhanced octupole correlations at high spin in Nd136. Physical Review C, 2020, 102, .	2.9	4
54	Connecting the proxy-SU(3) symmetry to the shell model. EPJ Web of Conferences, 2021, 252, 02004.	0.3	4

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55	Nucleon numbers for nuclei with shape coexistence. HNPS Advances in Nuclear Physics, 0, 26, 96.	0.0	4
56	A study of some aspects of the nuclear structure in the even-even Yb isotopes. European Physical Journal Plus, 2022, 137, 1.	2.6	4
57	Nuclear coherent population transfer to the $^{229}\text{Th}$ isomer using x-ray pulses. Physical Review C, 2022, 105, .	2.9	4
58	Staggering behavior of the low-lying excited states of even-even nuclei in a Sp(4,R) classification scheme. Physical Review C, 2002, 65, .	2.9	3
59	Nuclear deformation in the SUq(2) rotor model. Journal of Physics G: Nuclear and Particle Physics, 1995, 21, 557-563.	3.6	2
60	Complex shape effects in nuclear rotational spectra. Physics of Atomic Nuclei, 2004, 67, 1760-1765.	0.4	2
61	Extended E(5) and X(5) symmetries: Series of models providing parameter-independent predictions. Physics of Atomic Nuclei, 2004, 67, 1767-1775.	0.4	2
62	Energy differences of ground state and $\hat{I}^3_1$ bands as a hallmark of collective behavior. Nuclear Physics A, 2021, 1009, 122158.	1.5	2
63	The rotator model in excited collective bands of even deformed nuclei. Journal of Physics G: Nuclear and Particle Physics, 1996, 22, 1633-1641.	3.6	1
64	Intrinsic origin of the high order angular momentum terms in a nuclear rotation Hamiltonian. Journal of Physics G: Nuclear and Particle Physics, 2007, 34, 299-313.	3.6	1
65	Collective states of odd nuclei in a model with quadrupole-octupole degrees of freedom. Physics of Atomic Nuclei, 2007, 70, 1470-1475.	0.4	1
66	PARITY EFFECTS IN NUCLEAR COLLECTIVE AND SINGLE PARTICLE MOTION. International Journal of Modern Physics E, 2011, 20, 228-234.	1.0	1
67	NUCLEAR ALTERNATING-PARITY BANDS AND TRANSITION RATES IN A MODEL OF COHERENT QUADRUPOLE-OCTUPOLE MOTION. International Journal of Modern Physics E, 2012, 21, 1250021.	1.0	1
68	Non-yrast quadrupole-octupole spectra. EPJ Web of Conferences, 2012, 38, 12001.	0.3	1
69	Octupole deformations in high-K isomeric states of heavy and superheavy nuclei. EPJ Web of Conferences, 2016, 107, 03008.	0.3	1
70	Effects of the shape and Coriolis interaction in nuclear electromagnetic properties. EPJ Web of Conferences, 2018, 194, 01005.	0.3	1
71	B(E1)- and B(E2)-transition probabilities in alternating-parity spectra of lanthanide and actinide nuclei. International Journal of Modern Physics E, 2018, 27, 1850069.	1.0	1
72	Vibrational-rotational spectra of even-even nuclei with quadrupole and octupole deformations. International Journal of Modern Physics E, 2020, 29, 2050031.	1.0	1

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73	Magic numbers for shape coexistence. HNPS Advances in Nuclear Physics, 0, 26, 9.	0.0	1
74	The Magnetic Moment as a Constraint in Determining the $^{229m}\text{Th}$ Isomer Decay Rates. Acta Physica Polonica B, Proceedings Supplement, 2019, 12, 629.	0.1	1
75	Rotations of nuclei with reflection asymmetry correlations. Physics of Atomic Nuclei, 2001, 64, 1098-1104.	0.4	0
76	Staggering Behavior of the First Excited $2^+$ States of Even-Even Nuclei in a $\text{Sp}(4, \text{R})$ Classification Scheme. Progress of Theoretical Physics Supplement, 2002, 146, 555-556.	0.1	0
77	Relativistic mean field theory with the pion for finite nuclei. Nuclear Physics A, 2003, 722, C360-C365.	1.5	0
78	Shape Phase Transition from Octupole Deformation to Octupole Vibrations: The Analytic Quadrupole Octupole Axially Symmetric Model. AIP Conference Proceedings, 2006, , .	0.4	0
79	Coupling of nuclear quadrupole and octupole degrees of freedom in an angular momentum dependent potential of two deformation variables. AIP Conference Proceedings, 2006, , .	0.4	0
80	Time-odd effects and the spectroscopic properties of odd-mass fission fragments. , 2009, , .		0
81	Parity mixing in the single particle states of quadrupole-octupole deformed nuclei. Journal of Physics: Conference Series, 2010, 205, 012009.	0.4	0
82	Fixing the moment of inertia in the Bohr Hamiltonian through Supersymmetric Quantum Mechanics. Journal of Physics: Conference Series, 2012, 366, 012017.	0.4	0
83	Bohr Hamiltonian with deformation-dependent mass. Journal of Physics: Conference Series, 2015, 590, 012004.	0.4	0
84	Shape and electromagnetic properties of the $^{229m}\text{Th}$ isomer. EPJ Web of Conferences, 2021, 252, 02003.	0.3	0
85	FINE STRUCTURE OF ROTATIONAL BANDS AND QUADRUPOLE-“OCTUPOLE COLLECTIVITY IN HEAVY NUCLEI. , 2001, , .		0
86	SYMMETRIES AND STAGGERING EFFECTS IN NUCLEAR ROTATIONAL SPECTRA. , 2001, , .		0
87	ANALYTIC DESCRIPTION OF THE SHAPE PHASE TRANSITION FROM OCTUPOLE DEFORMATION TO OCTUPOLE VIBRATIONS. , 2006, , .		0
88	Complete Solution of Nuclear Quadrupole–Octupole Model in Two Dimensions. Acta Physica Polonica B, Proceedings Supplement, 2015, 8, 619.	0.1	0
89	Pear-shape Effects in $(^{130-136})\text{Nd}$ Isotopes. Acta Physica Polonica B, Proceedings Supplement, 2020, 13, 443.	0.1	0