

# George Bertsch

## List of Publications by Year in descending order

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78  
papers

3,439  
citations

172457

29  
h-index

138484

58  
g-index

79  
all docs

79  
docs citations

79  
times ranked

1993  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure of even-even nuclei using a mapped collective Hamiltonian and the D1S Gogny interaction. Physical Review C, 2010, 81, .	2.9	381
2	Real-space, real-time method for the dielectric function. Physical Review B, 2000, 62, 7998-8002.	3.2	326
3	Time-dependent density functional theory for strong electromagnetic fields in crystalline solids. Physical Review B, 2012, 85, .	3.2	199
4	Real-time, real-space implementation of the linear response time-dependent density-functional theory. Physica Status Solidi (B): Basic Research, 2006, 243, 1121-1138.	1.5	195
5	Time-dependent local-density approximation in real time: Application to conjugated molecules. International Journal of Quantum Chemistry, 1999, 75, 55-66.	2.0	184
6	Global study of quadrupole correlation effects. Physical Review C, 2006, 73, .	2.9	171
7	Orderly Spectra from Random Interactions. Physical Review Letters, 1998, 80, 2749-2753.	7.8	155
8	Excited states dynamics in time-dependent density functional theory. European Physical Journal D, 2004, 28, 211-218.	1.3	126
9	Odd-even mass differences from self-consistent mean field theory. Physical Review C, 2009, 79, .	2.9	118
10	Future of nuclear fission theory. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 113002.	3.6	105
11	Parity Dependence of Nuclear Level Densities. Physical Review Letters, 2000, 84, 4313-4316.	7.8	78
12	Coherent phonon generation in time-dependent density functional theory. Physical Review B, 2010, 82, .	3.2	77
13	Ionization dynamics of simple metal clusters in intense fields by the Thomas-Fermi-Vlasov method. European Physical Journal D, 2004, 29, 367-378.	1.3	76
14	Systematics of the First $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:msup} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:math} \rangle$ Excitation with the Gogny Interaction. Physical Review Letters, 2007, 99, 032502.	7.8	75
15	Nuclear level statistics: Extending shell model theory to higher temperatures. Physical Review C, 2003, 68, .	2.9	71
16	Symmetry Restoration in Hartree-Fock-Bogoliubov Based Theories. Physical Review Letters, 2012, 108, 042505.	7.8	70
17	Collectivity-induced quenching of signatures for shell closures. Physical Review C, 2008, 78, .	2.9	68
18	Numerical pump-probe experiments of laser-excited silicon in nonequilibrium phase. Physical Review B, 2014, 89, .	3.2	61

#	ARTICLE	IF	CITATIONS
19	Application of the gradient method to Hartree-Fock-Bogoliubov theory. Physical Review C, 2011, 84, .	2.9	59
20	Real-space computation of dynamic hyperpolarizabilities. Journal of Chemical Physics, 2001, 115, 8773-8783.	3.0	50
21	Optical response of small carbon clusters. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1997, 42, 219-225.	1.0	47
22	Global study of the spectroscopic properties of the first $2^+$ state in even-even nuclei. Physical Review C, 2007, 75, .	2.9	43
23	Systematics of the first $2^+$ state in spherical nuclei with the Skyrme quasiparticle random-phase approximation. Physical Review C, 2008, 78, .	2.9	42
24	Accuracy of BCS-based approximations for pairing in small Fermi systems. Physical Review C, 2008, 78, .	2.9	42
25	Shell Model Monte Carlo Studies of $\hat{I}^3$ -Soft Nuclei. Physical Review Letters, 1996, 77, 1444-1447.	7.8	40
26	Comparison of transfer-to-continuum and eikonal models of projectile fragmentation reactions. Physical Review C, 2001, 63, .	2.9	36
27	Nuclear moment of inertia and spin distribution of nuclear levels. Physical Review C, 2005, 72, .	2.9	31
28	Pairing gaps in the Hartree-Fock-Bogoliubov theory with the Gogny D1S interaction. Physical Review C, 2012, 86, .	2.9	30
29	Large-amplitude motion in superfluid fermi droplets. Nuclear Physics A, 1990, 512, 253-274.	1.5	30
30	Hartree-Fock-Bogoliubov theory of polarized Fermi systems. Physical Review A, 2009, 79, .	2.5	29
31	Number-conserving theory of nuclear pairing gaps: A global assessment. Physical Review C, 2011, 83, .	2.9	24
32	Estimating Parameter Uncertainty in Binding-Energy Models by the Frequency-Domain Bootstrap. Physical Review Letters, 2017, 119, 252501.	7.8	24
33	Angular momentum of fission fragments. Physical Review C, 2019, 99, .	2.9	24
34	Neutron-proton pairing reexamined. Physical Review C, 2007, 76, .	2.9	23
35	Correlation energies by the generator coordinate method: Computational aspects for quadrupolar deformations. Physical Review C, 2004, 69, .	2.9	22
36	Projection and ground state correlations made simple. Physical Review C, 2002, 65, .	2.9	21

#	ARTICLE	IF	CITATIONS
37	Nuclear Deformation at Finite Temperature. Physical Review Letters, 2014, 113, 262503.	7.8	18
38	Scission dynamics with $K$ partitions. Physical Review C, 2018, 97, .	2.9	18
39	Statistical theory of deformation distributions in nuclear spectra. Physical Review C, 2018, 98, .	2.9	17
40	Cluster ionization via two-plasmon excitation. Physical Review A, 2000, 61, .	2.5	16
41	Quadrupole correlation energy by the generator coordinate method. Physical Review C, 2003, 68, .	2.9	15
42	Whence the odd-even staggering in nuclear binding?. European Physical Journal A, 2009, 41, 109-113.	2.5	13
43	Composite-particle decay widths by the generator coordinate method. Annals of Physics, 2019, 403, 68-81.	2.8	13
44	Ionic core effects on the mie resonance in lithium clusters. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1995, 32, 329-336.	1.0	11
45	Particle-number projection in the finite-temperature mean-field approximation. Physical Review C, 2017, 96, .	2.9	11
46	Nuclear deformation in the laboratory frame. Physical Review C, 2018, 97, .	2.9	11
47	Effective quadrupole-quadrupole interaction from density functional theory. Physical Review C, 2006, 74, .	2.9	10
48	Decay widths at the scission point in nuclear fission. Physical Review C, 2019, 100, .	2.9	10
49	Schematic reaction-theory model for nuclear fission. Physical Review C, 2020, 101, .	2.9	9
50	Time-dependent local-density approximation in real time: Application to conjugated molecules. , 1999, 75, 55.		8
51	Diabatic paths through the scission point in nuclear fission. Physical Review C, 2019, 100, .	2.9	7
52	Inelastic electron scattering on C60 clusters. Journal of Chemical Physics, 1994, 100, 5580-5587.	3.0	6
53	Neutron width statistics in a realistic resonance-reaction model. Physical Review C, 2018, 98, .	2.9	6
54	Least action and the maximum-coupling approximations in the theory of spontaneous fission. Physical Review C, 2020, 102, .	2.9	6

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55	Microscopic model for spontaneous fission: Validity of the adiabatic approximation. Physical Review C, 2020, 101, .	2.9	6
56	Time-dependent local-density approximation in real time: Application to conjugated molecules. International Journal of Quantum Chemistry, 1999, 75, 55.	2.0	6
57	Many-body approximations in the $\langle \text{sd} \rangle$ -shell $\hat{\rho}$ . Physical Review C, 2008, 78, .	2.9	5
58	The shapes of nuclei. International Journal of Modern Physics E, 2017, 26, 1740001.	1.0	5
59	Exit-Channel Suppression in Statistical Reaction Theory. Physical Review Letters, 2017, 119, 222504.	7.8	5
60	Nuclear Matrix Elements for Tests of Local Lorentz Invariance Violation. Physical Review Letters, 2017, 119, 192504.	7.8	5
61	Fluctuations in the U235 ( $n, f$ ) cross section. Physical Review C, 2018, 98, .	2.9	5
62	Mean-field theory for global binding systematics. Physics of Atomic Nuclei, 2001, 64, 588-594.	0.4	4
63	Resource Letter FNP-1: Frontiers of nuclear physics. American Journal of Physics, 2004, 72, 983-991.	0.7	4
64	Model space truncation in shell-model fits. Physical Review C, 2009, 80, .	2.9	4
65	Derivation of $K$ -matrix reaction theory in a discrete basis formalism. Annals of Physics, 2020, 419, 168233.	2.8	4
66	Porter-Thomas fluctuations in complex quantum systems. Physical Review E, 2021, 104, L052104.	2.1	4
67	Generator coordinate method for transition-state dynamics in nuclear fission. Physical Review C, 2022, 105, .	2.9	4
68	Energy spectrum and effective mass using a nonlocal 3-body interaction. Physical Review C, 2012, 85, .	2.9	3
69	A new approach to barrier-top fission dynamics. EPJ Web of Conferences, 2016, 122, 01001.	0.3	3
70	Monopole moments and the $\eta$ -vibration in deformed nuclei. European Physical Journal A, 2019, 55, 1.	2.5	3
71	Time-dependent mean-field theory for x-ray near-edge spectroscopy. Physical Review B, 2014, 89, .	3.2	2
72	Diabatic Hamiltonian matrix elements made simple. Physical Review C, 2022, 105, .	2.9	2

#	ARTICLE	IF	CITATIONS
73	Pairing in Finite Systems: Beyond the HFB Theory. , 2013, , 89-99.		1
74	Transmission coefficients in compound-nucleus reaction theory. Physical Review C, 2019, 99, .	2.9	1
75	Comment on "Reexamining the relation between the binding energy of finite nuclei and the equation of state of infinite nuclear matter", Physical Review C, 2021, 104, .	2.9	1
76	Correlation Energies By The Projected Generator Coordinate Method. AIP Conference Proceedings, 2005, , .	0.4	0
77	The shapes of nuclei. , 2017, , 1-13.		0
78	Phase transitions in a symmetry-conserving framework. AIP Conference Proceedings, 2019, , .	0.4	0