

# List of publications

## I. Papers published in periodicals

- 1. Dynamics of nuclear quadrupole excitations:**  
J. Dobaczewski, S.G. Rohoziński, J. Srebrny,  
*Nukleonika* **20** (1975) 981.
- 2. Solutions of the Schrödinger equation with the Bohr Hamiltonian for the even-even barium and xenon nuclei:**  
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*Nukleonika* **22** (1977) 293.
- 3. Nuclei from the barium region: nonaxial or gamma-soft:**  
J. Dobaczewski, S.G. Rohoziński, J. Srebrny,  
*Z. Phys.* **A282** (1977) 203.
- 4. Microscopic dynamic calculations of collective states in xenon and barium isotopes:**  
S.G. Rohoziński, J. Dobaczewski, B. Nerlo-Pomorska, K. Pomorski, J. Srebrny,  
*Nucl. Phys.* **A292** (1977) 66.
- 5. Study of the  $^{124}\text{Xe}$  and  $^{126}\text{Xe}$  structure:**  
Ch. Droste, L. Goetting, T. Morek, J. Srebrny, J. Bucka, J. Dobaczewski, S.G. Rohoziński,  
*Z. Phys.* **A284** (1978) 297.
- 6. Collective quadrupole dynamics and the band structure of the nucleus  $^{127}\text{Cs}$ :**  
Ch. Droste, D. Chlebowska, J. Dobaczewski, F. Döna, A. Kerek, G. Leander, J. Srebrny, W. Waluś,  
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- 7. The quadrupole vibrational inertial function in the adiabatic time-dependent Hartree-Fock-Bogolyubov approximation:**  
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*Nucl. Phys.* **A369** (1981) 123.
- 8. A unification of boson expansion theories. (I) Functional representations of fermion states:**  
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9. **A unification of boson expansion theories. (II) Boson expansions as provided by the functional representation method:**  
J. Dobaczewski,  
*Nucl. Phys. A369 (1981) 237.*
10. **A unification of boson expansion theories. (III) Applications:**  
J. Dobaczewski,  
*Nucl. Phys. A380 (1982) 1.*
11. **Isotope shifts and zero-point motion of the nuclear surface:**  
J. Dobaczewski, P. Vogel, A. Winther,  
*Phys. Rev. C29 (1984) 1540.*
12. **Hartree-Fock-Bogolyubov description of nuclei near the neutron-drip line:**  
J. Dobaczewski, H. Flocard, J. Treiner,  
*Nucl. Phys. A422 (1984) 103.*
13. **On the SU(6) dynamic symmetry in nuclei:**  
J. Dobaczewski,  
*Ann. Univ. M. Curie-Skłodowska, Lublin, XL/XLI, 9 Sect. AAA (1986) 81.*
14. **Violation of quadrupole sum rules in the Interacting Boson Model:**  
J. Dobaczewski, S.G. Rohoziński, J. Srebrny,  
*Nucl. Phys. A462 (1987) 72.*
15. **Structure of nuclei near  $^{100}\text{Sn}$  and the  $\pi g_{9/2} \Rightarrow \nu g_{7/2}$  Gamow-Teller beta decays:**  
J. Dobaczewski, W. Nazarewicz, A. Płochocki, K. Rykaczewski, J. Żylicz,  
*Z. Phys. A329 (1988) 267.*
16. **Deformed nuclear state as a quasiparticle-pair condensate:**  
J. Dobaczewski, J. Skalski,  
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17. **Nuclear deformation: A proton-neutron effect?:**  
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*Phys. Rev. Lett. 60 (1988) 2254.*
18. **Quadrupole collective models from the Hartree-Fock standpoint:**  
J. Dobaczewski, J. Skalski,  
*Phys. Rev. C40 (1989) 1025.*
19. **Composition and equation of state of cold catalyzed matter below neutron drip:**  
P. Haensel, J.L. Zdunik, J. Dobaczewski,  
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20. **Charge densities of  $^{208}\text{Pb}$ ,  $^{206}\text{Pb}$ , and  $^{205}\text{Tl}$  and the mean-field approximation:**  
L. Bennour, P.-H. Heenen, P. Bonche, J. Dobaczewski, H. Flocard,  
*Phys. Rev. C40 (1989) 2834.*
21. **Fermion expansions for boson systems:**  
J. Dobaczewski,  
*Nucl. Phys. A506 (1990) 293.*
22. **Analysis of the Generator Coordinate Method in a study of shape isomerism in  $^{194}\text{Hg}$ :**  
P. Bonche, J. Dobaczewski, H. Flocard, P.-H. Heenen, J. Meyer,  
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23. **A new representation of the BCS states and the quadrupole collective excitations:**  
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24. **Quadrupole collective correlations and the depopulation of the superdeformed bands in mercury:**  
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26. **Generator coordinate method for triaxial quadrupole dynamics in strontium isotopes:**  
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27. **Projection onto physical boson states in a collective subspace:**  
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28. **Pairing vibrations and stability of superdeformed states:**  
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29. **Dynamical symmetries, multiclustering, and octupole susceptibility in superdeformed and hyperdeformed nuclei:**  
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*Phys. Rev. Lett.* **68** (1992) 154.
30. **Generator coordinate kernels between zero- and two-quasiparticle BCS states:**  
N. Tajima, H. Flocard, P. Bonche, J. Dobaczewski, P.-H. Heenen,  
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33. **Hartree-Fock and Hartree-Fock-Bogoliubov calculations of superdeformed bands:**  
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34. **Generator coordinate method for triaxial quadrupole dynamics in strontium isotopes. II Results for particle-number projected states:**  
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36. **Particle-drip lines from the Hartree-Fock-Bogoliubov theory with Skyrme interaction:**  
R. Smolańczuk, J. Dobaczewski,  
*Phys. Rev. C* **48** (1993) 2166.
37. **Boson-fermion mappings for odd systems from supercoherent states:**  
J. Dobaczewski, F.G. Scholtz, H.B. Geyer,  
*Phys. Rev. C* **48** (1993) 2313.
38. **Nuclear shell structure at particle drip lines:**  
J. Dobaczewski, I. Hamamoto, W. Nazarewicz, J.A. Sheikh,  
*Phys. Rev. Lett.* **72** (1994) 981.
39. **Quadrupole collective states in a large single- $j$  shell:**  
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42. **Superdeformed rotational bands in the mercury region; a cranked Skyrme-Hartree-Fock-Bogoliubov study:**  
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44. **Microscopic approach to collective motion:**  
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45. **Microscopic aspects of nuclear deformation:**  
T.R. Werner, J. Dobaczewski, M.W. Guidry, W. Nazarewicz, J.A. Sheikh,  
*Nucl. Phys.* **A578** (1994) 1.
46. **Mean-field description of ground-state properties of drip-line nuclei: Shell-correction method:**  
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47. **Isospin impurities in ground states of  $N=Z$  nuclei near the proton-drip line:**  
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48. **The  $\Delta I=4$  bifurcation in superdeformed bands:**  
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49. **Multiclustering and physics of exotic nuclear shapes:**  
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50. **Limits of Proton Stability Near  $^{100}\text{Sn}$ :**  
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53. **Closed shells at drip-line nuclei:**  
J. Dobaczewski, W. Nazarewicz, T.R. Werner,  
*Physica Scripta* **T56** (1995) 15.
54. **Hexadecapole interaction and the  $\Delta I=4$  staggering effect in rotational bands:**  
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55. **Quadrupole and octupole correlations in normal, superdeformed, and hyperdeformed states of  $^{194}\text{Pb}$ :**  
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56. **Influence of shell-quenching far from stability on the astrophysical r-process:**  
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59. **Time-odd components in the mean field of rotating superdeformed nuclei:**  
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60. **Superdeformed rotational bands with density dependent pairing interactions:**  
J. Terasaki, P.-H. Heenen, P. Bonche, J. Dobaczewski, H. Flocard,  
*Nucl. Phys.* **A593** (1995) 1.
61. **Excited superdeformed band in  $^{142}\text{Sm}$  identical to  $^{146}\text{Gd}$ :**  
G. Hackman, R. Wadsworth, D.S. Haslip, R.M. Clark, J. Dobaczewski, J. Dudek, S. Flibotte, K. Hauschild, I.M. Hibbert, I.-Y. Lee, S.M. Mullins, A.O. Macchiavelli, S. Pilotte, A.T. Semple, I. Thorslund, J. Timar, P. Vaska, J.C. Waddington, L. Walker,  
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62. **Microscopic study of a  $C_4$ -symmetry hypothesis in  $A \sim 150$  superdeformed nuclei. Deformed Woods-Saxon mean field:**  
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66. **On the quality of microscopic descriptions of nuclear mass:**  
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69. **Structure of proton drip-line nuclei around doubly magic  $^{48}\text{Ni}$ :**  
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83. **Prompt proton decay of a well-deformed rotational band in  $^{58}\text{Cu}$ :**  
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H.-Q. Jin, D.R. LaFosse, L.L. Riedinger, D.G. Sarantites, C.-H. Yu,  
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85. **Theoretical aspects of science with radioactive nuclear beams:**  
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86. **Odd-even staggering of nuclear masses: pairing or shape effect?:**  
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1. **Self-consistent tilted-axis-cranking study of triaxial strongly deformed bands in  $^{158}\text{Er}$  at ultrahigh spin:**  
Yue Shi, J. Dobaczewski, S. Frauendorf, W. Nazarewicz, J. C. Pei, F. R. Xu, N. Nikolov,  
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## III. Popularized papers for general public

1. **O obrotach ciał niewielkich (I):**  
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2. **O obrotach ciał niewielkich (II):**  
J. Dobaczewski, W. Nazarewicz,  
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J. Dobaczewski,  
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4. **The atomic nucleus as a laboratory:**  
H. Białkowska, Z. Sujkowski, J. Dobaczewski,  
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## IV. Papers published as preprints or e-prints

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J. Dobaczewski, S.K. Koonin,  
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- *Part I - preprint IFT/16/85,*
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4. **Excited superdeformed bands in  $^{148}\text{Gd}$ : Band crossing and identical bands:**  
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5. **HFODD (v2.08k): User's Guide:**  
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## V. Conference invited talks

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