

СПИСЪК НА ПУБЛИКАЦИИТЕ

ЗА ПЪРВИЯ ЕТАП НА ДОГОВОР КП-06-Н28/6 от 08.12.2018 г.

Тема: „Алгебрични Методи в Квантовата Статистика и Приложения в Квантови Системи“

Брой научни трудове: 15

От тях с импакт-фактор: 6

От тях с импакт-ранг: 3

В други издания: 5

В онлайн препринтна база: 1

Предговор на книжка 4 от брой 46, на *Bulg. J. Phys.* със статиите от международния семинар SDANCA-19

Полулярни статии: 1

Статии на учени, които не са членове на договора, с благодарности: 4

Научни трудове

[1] N.I. Stoilova and **J. Van der Jeugt**, A class of representations of the orthosymplectic Lie superalgebras $B(n,n)$ and $B(\infty,\infty)$, Proceedings of the XIII International Workshop Lie Theory and Its Applications in Physics, (Varna, Bulgaria, June 2019), "Springer Proceedings in Mathematics and Statistics", SJR 0.22, ed. V. Dobrev (Springer, Heidelberg-Tokyo, 2020)" (in press) (JVderJ – подкрепа от настоящия договор (60%) и белгийски проект (40%))

[2] Phillip S. Issac, **N.I. Stoilova** and Joris Van der Jeugt, The $Z_2 \times Z_2$ -graded general linear Lie superalgebra, *J. Math. Phys.* 61 011702 (2020) IF:1.355, Q2 (Scopus), <https://aip.scitation.org/doi/pdf/10.1063/1.5138597>

[3] Alexis Langlois-R'emillard and **Roy Oste**, An exceptional symmetry algebra for the 3D Dirac–Dunkl operator, Proceedings of the XIII International Workshop Lie Theory and Its Applications in Physics, (Varna, Bulgaria, June 2019), "Springer Proceedings in Mathematics and Statistics", SJR 0.22, ed. V. Dobrev (Springer, Heidelberg-Tokyo, 2020)" (in press) (подкрепа от настоящия договор (60%) и белгийска стипендия (40%))

[4] M. Henkel and **S. Stoimenov**, Infinite-dimensional meta-conformal Lie algebras in one and two spatial dimensions, *J. Stat. Mech.: Theory and Experiment*, 8, 084009 (2019), IF 2.371, Q1 (Web of Science, Math. Phys.) <https://iopscience.iop.org/article/10.1088/1742-5468/ab3282> (подкрепа от настоящия договор (50%) и проект по Рила (50%))

[5] Malte Henkel, Michal Dariusz Kuczynski and **Stoimen Stoimenov**, “Boundedness of meta-conformal two-point functions in one and two spatial dimensions” , arXiv:2006.04537, (2020), <https://arxiv.org/abs/2006.04537>

[6] **N.I. Stoilova** and J. Van der Jeugt, Representations of the Lie superalgebra $B(\infty, \infty)$ and parastatistics Fock spaces, J. Phys. A: Math. Theor. 52 135201 (28pp) (2019) IF: 1.996, Q2 (Scopus, Math. Phys.) <https://iopscience.iop.org/article/10.1088/1751-8121/ab09bc> (Статията е публикувана с подкрепа на настоящия договор (90%) и с подкрепа на двустранен проект БАН/FWO, Flanders (10%))

[7] **N.I. Stoilova** and J. Van der Jeugt, Partition functions and thermodynamic properties of paraboson and parafermion systems, Phys. Lett. A 384, Issue 21, 126421 (2020), IF 2.278, Q2 (Scopus), <https://doi.org/10.1016/j.physleta.2020.126421>

[8] D. Bonatsos, A. Martinou, I. E. Assimakis, S. Sarantopoulou, S. Peroulis and **N. Minkov**, Manifestations of SU(3) symmetry in heavy deformed nuclei, Nuclear Theory, vol. 38, Proceedings of the 38-th International Workshop on Nuclear Theory (Rila, Bulgaria 2019), ed. M. Gaidarov and N. Minkov, (Heron Press, Sofia), p. 128 (2019), http://ntl.inrne.bas.bg/workshop/2019/contributions/p15_Bonatsos_2019.pdf

[9] D. Bonatsos, I. E. Assimakis, A. Martinou, S. K. Peroulis, S. Sarantopoulou and **N. Minkov**, Proxy-SU(3) symmetry for heavy deformed nuclei: nuclear spectra, Bulg. J. Phys. 46 (No 4), 325-336 (2019), http://www.bjp-bg.com/papers/bjp2019_4_325-336.pdf

[10] A. Martinou, **N. Minkov**, S. Sarantopoulou, S. Peroulis, I. E. Assimakis and D. Bonatsos, Connection between Elliott SU(3) and spherical shell model bases, Bulg. J. Phys. 46 (No 4), 337-346 (2019), http://www.bjp-bg.com/papers/bjp2019_4_337-346.pdf

[11] D. Bonatsos, A. Martinou, S. Sarantopoulou, I. E. Assimakis, S. Peroulis and **N. Minkov**, Parameter-free predictions for the collective deformation variables beta and gamma within the pseudo-SU(3) scheme, Eur. Phys. J. Special Topics (EPJ ST), accepted (2020), IF 1.660, Q2 (Scopus)

[12] **Nikolay Minkov** and Adriana Pálffy, Theoretical Predictions for the Magnetic Dipole Moment of ^{229}mTh , Phys. Rev. Lett. 122, 162502 (2019), IF 9.227 Q1 (Scopus), <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.122.162502>

(Тази статия е публикувана с подкрепата на настоящия договор наравно (50%) с подкрепата от предишен договор ДФНИ-Е02/6 (приключил) с ръководител Н. Минков, в отчета на който не е включена.)

[13] **N. Minkov**, Study of pear-shape effects in the spectra of even-even nuclei, Nuclear Theory, vol. 38, Proceedings of the 38-th International Workshop on Nuclear Theory (Rila, Bulgaria 2019), ed. M. Gaidarov and N. Minkov, (Heron Press, Sofia), p. 34 (2019), http://ntl.inrne.bas.bg/workshop/2019/contributions/p05_Minkov_2019.pdf

[14] **N. Minkov**, Nuclear structure effects involving pear-shape deformation, Bulg. J. Phys. 46 (No 4), 386-394 (2019), http://www.bjp-bg.com/papers/bjp2019_4_386-394.pdf (Тази статия е публикувана с подкрепата на настоящия договор наравно (50%) с подкрепата от друг договор с ФНИ, КП-06-РИЛА/6, в отчета на който ще бъде включена)

[15] **N. Minkov**, Pear-shape effects in 130-136Nd isotopes, Acta Phys. Pol. B Suppl., in press (2019), SJR=0.21, Q3 (Scopus) (Proc. XXVI Nuclear Physics Workshop "Maria and Pierre Curie" - Key problems of nuclear physics, 24-29.09.2019, Kazimierz Dolny, Poland)

В представените материали е включен и предговор на книжка 4 от брой 46, на Bulg. J. Phys. със статиите от международния семинар SDANCA-19:

N. Minkov, PREFACE to the Proceedings of the International Workshop "Shapes and Dynamics of Atomic Nuclei: Contemporary Aspects" (SDANCA-19), 3-5 October 2019, Sofia, Bulgaria", Bulg. J. Phys. 46 (No 4), 343-245 (2019), http://www.bjp-bg.com/papers/bjp2019_4_243-246.pdf

Популярна статия

Н. Стоилова, Мъри Гел-Ман – "Човекът с петте мозъка", Светът на физиката, том XLIII, кн. 1, 2020 г, стр. 76, <http://wop.phys.uni-sofia.bg/>

Статии на учени, които не са членове на договора, с благодарности

1. A. Martinou, "Shell Merging in SU(3)", Nuclear Theory, vol. 38, Proceedings of the 38-th International Workshop on Nuclear Theory (Rila, Bulgaria 2019), ed. M. Gaidarov and N. Minkov, (Heron Press, Sofia), p. 31 (2019), http://ntl.inrne.bas.bg/workshop/2019/contributions/p04_Martinou_2019.pdf

2. G. A. Lalazissis, K. E. Karakatsanis, V. Prassa and P. Ring, "K-Levels in Axially Deformed Nuclei with Relativistic Hartree-Bogoliubov Theory", Bulg. J. Phys. 46 (No 4), 354–365 (2019), http://www.bjp-bg.com/papers/bjp2019_4_354-365.pdf

3. T. J. Mertzimekis, A. Khaliel, D. Papaioannou, G. Zagoraios, A. Zyrioliou, "Lifetimes and Moments Measurements to Investigate the Structure of Midheavy Nuclei", Bulg. J. Phys. 46 (No 4), 378–385 (2019), http://www.bjp-bg.com/papers/bjp2019_4_378-385.pdf

4. P. S. Koliogiannis, Ch. C. Moustakidis, "Effects on the Equation of State through the Uniform Rotation of Neutron Stars", Bulg. J. Phys. 46 (No 4), 303–312 (2019), http://www.bjp-bg.com/papers/bjp2019_4_303-312.pdf