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### Список научных работ

за период с 2018 по 2023гг. (данные на 15.02.2023)

#### Публикации в рецензируемых журналах (зарубежные):

1. Upgrade for Phase II of the GERDA Experiment *GERDA collaboration*, The European Physical Journal C, ISSN:1434-6044, eISSN:1434-6052, Изд: Springer Berlin Heidelberg, 78, 388, 2018
2. GERDA results and the future perspectives for the neutrinoless double beta decay search using  $^{76}\text{Ge}$  *GERDA collaboration* (ОИЯИ: В.Б.Бруданин, К.Н.Гусев, И.В.Житников, Д.Р.Зинатулина, А.А.Клименко, О.И.Кочетов, А.В.Лубашевский, И.Б.Немченко, Н.С.Румянцева, А.А.Смольников, М.В.Фомина и др.), International Journal of Modern Physics A, Изд: World Scientific Publishing Company, 33, 9, 1843004, 1-35, 2018
3. The processing of enriched germanium for the Majorana Demonstrator and R&D for a next generation double-beta decay experiment  
*N.Abgrall, ..., V.Brudanin, M.Shirchenko, S.Vasilyev, E.Yakushev, I.Zhitnikov et al.*, Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, ISSN:0168-9002, eISSN:1872-9576, Изд:Elsevier Science Limited, 877, 314-322, 2018
4. Search for Neutrinoless Double Beta Decay in  $^{76}\text{Ge}$  with the Majorana Demonstrator  
*C.E.Aalseth, ..., V.Brudanin, M.Shirchenko, S.Vasilyev, E.Yakushev, I.Zhitnikov et al.*, Physical Review Letters, ISSN:0031-9007, eISSN:1079-7114, Изд:American Physical Society, 120, 132502, 2018
5. Improved Limit on Neutrinoless Double-Beta Decay of  $^{76}\text{Ge}$  from GERDA Phase II *GERDA collaboration*, Physical Review Letters, ISSN:0031-9007, eISSN:1079-7114, Изд: American Physical Society, 120, 132503, 2018
6. Search for sterile neutrinos at the DANSS experiment  
*I. Alekseev, V. Belov, V. Brudanin, M. Danilov, V. Egorov, D. Filosofov, M. Fomina, Z. Hons, S. Kazartsev, A. Kobayakin, A. Kuznetsov, I. Machikhiliyan, D. Medvedev, V. Nesterov, A. u др.*, Physical Letters B, Изд: Elsevier Science Limited, 787, 56-63, 2018
7. DANSS Neutrino Spectrometer: Detector Calibration, Response Stability, and Light Yield  
*I. G. Alekseev, V. V. Belov, M. V. Danilov, I. V. Zhitnikov, A. S. Kobayakin, A. S. Kuznetsov, I. V. Machikhiliyan, D. V. Medvedev, V. Yu. Rusinov, D. N. Svirida, N. A. Skrobova, A. u др.*, Physics of Particles and Nuclei Letters, ISSN:1547-4771, Изд: Pleiades Publishing, Ltd, 15, 272-283, 2018
8. Probing Majorana neutrinos with double-Beta Decay *GERDA collaboration*, Science, ISSN:0036-8075, eISSN:1095-9203, Изд: American Association for the Advancement of Science, 365, 1445-1448, 2019
9. Characterization of 30  $^{76}\text{Ge}$  enriched Broad Energy Ge detectors for GERDA Phase II GERDA  
*GERDA collaboration* (ОИЯИ: В.Б.Бруданин, К.Н.Гусев, И.В.Житников,

Д.Р.Зинатулина, А.А.Клименко, О.И.Кочетов, А.В.Лубашевский, И.Б.Немченко, Н.С.Румянцева, А.А.Смольников, М.В.Фомина и др., Eur. Phys. J. C, Изд:Springer-Verlag / Societ? Italiana di Fisica, 79, 978, 1-24, 2019

10. Search for trinucleon decay in the Majorana Demonstrator

*S.I.Alvis, ..., V.Brudanin, M.Shirchenko, S.Vasilyev, E.Yakushev, I.Zhitnikov et al.*, Physical Review D, ISSN:2470-0010, eISSN:2470-0029, Изд:American Physical Society, 99, 072004, 2019

11. Search for neutrinoless double beta decay in  $^{76}\text{Ge}$  with 26 kgyr of exposure from the Majorana Demonstrator

*S.I.Alvis, ..., M.Shirchenko, S.Vasilyev, E.Yakushev, I.Zhitnikov et al.*, Physical Review C, Изд:American Physical Society, 100, 025501, 2019

12. Multisite event discrimination for the MAJORANA DEMONSTRATOR

*S.I.Alvis, ..., M.Shirchenko, S.Vasilyev, E.Yakushev, I.Zhitnikov et al.*, Physical Review C, Изд:American physical society, 99, 065501, 2019

13. Industrial Reactor Power Monitoring Using Antineutrino Counts in the DANSS Detector

*I. G. Alekseev, V. V. Belov, V. B. Brudanin, G. G. Guzeev, M. V. Danilov, V. G. Egorov, I. V. Zhitnikov, D. R. Zinatulina, S. V. Kazartsev, A. S. Kobayakin, A. S. Kuznetsov, I. V. Mu др.*, Physics of atomic nuclei, ISSN:1063-7788, eISSN:1562-692X, Изд:МАИК Nauka/Interperiodica, Pleiades Publishing, Ltd, 82, 415–424, 2019

14. First Search for Bosonic Superweakly Interacting Massive Particles with Masses up to 1 MeV/c<sup>2</sup> with GERDA

*GERDA collaboration*, Physical Review Letters, ISSN:0031-9007, eISSN:1079-7114, Изд: American Physical Society, 125, 011801, 2020

15. Final Results of GERDA on the Search for Neutrinoless Double-Beta Decay

*GERDA collaboration*, Physical Review Letters, ISSN:0031-9007, eISSN:1079-7114, Изд: The American Physical Society, 125, 252502, 2020

16. Modeling of GERDA Phase II data

*GERDA collaboration*, Journal of High Energy Physics, ISSN:1126-6708, eISSN:1029-8479, Изд: Springer, 139, 2020

17. Calibration of the GERDA experiment

*GERDA collaboration*, The European Physical Journal C - Particles and Fields, ISSN:1434-6044, eISSN:1434-6052, Изд: Springer Berlin Heidelberg, 81, 682, 2021

18. Characterization of inverted coaxial  $^{76}\text{Ge}$  detectors in GERDA for future double-beta decay experiments

*GERDA collaboration*, The European Physical Journal C - Particles and Fields, ISSN:1434-6044, eISSN:1434-6052, Изд: Springer Berlin Heidelberg, 81, 6, 1-12, 2021

19. Pulse shape analysis in GERDA Phase II

*GERDA collaboration*, The European Physical Journal C, ISSN:1434-6044, eISSN:1434-6052, Изд: Springer Berlin Heidelberg, 82, 4, 1-16, 2022

20. Total capture rates of negative muons in MG-24. V. V. Belov, K. N. Gusev, I. V. Zhitnikov, D. R. Zinatullina, S. V. Kazartsev, N. S. Rumyantseva, E. A. Shevchik, M. V. Shirchenko, Yu. A. Shitov & M. V. Fomina *Physics of Particles and Nuclei Letters* volume 19, pages 221–224 (2022)

21. Optimized scintillation strip design for the DANSS upgrade

*I. Alekseev, V. Belov, A. Bystryakov, M. Danilov, A. Ershova, D. Filosofov, M. Fomina, S. Kazartsev, A. Kobyakin, N. Kozlenko, A. Kuznetsov, I. Machikhiliyan, F. Mamedov, D. Medved u òp.*, *Journal of Instrumentation*, ISSN:1748-0221, eISSN:1748-0221, Изд: IOP Publishing Ltd and Sissa Medialab, 17, 2022

22. Observation of the temperature and barometric effects on the cosmic muon flux by the DANSS detector

*I. Alekseev, V. Belov, V. Brudanin, A. Bystryakov, M. Danilov, V. Egorov, D. Filosofov, M. Fomina, S. Kazartsev, A. Kobyakin, A. Kuznetsov, I. Machikhiliyan, D. Medvedev, V. Nester u òp.*, *The European Physical Journal C*, ISSN:1434-6044, eISSN:1434-6052, Изд: Springer Berlin Heidelberg, 82, 2022

23. First results of the  $\nu$ GeN experiment on coherent elastic neutrino-nucleus scattering

*I. Alekseev, K. Balej, V. Belov, S. Evseev, D. Filosofov, M. Fomina, Z. Hons, D. Karaivanov, S. Kazartsev, J. Khushvaktov, A. Kuznetsov, A. Lubashevskiy, D. Medvedev, D. Ponomarev, A. Rakhimov, K. Shakhov, E. Shevchik, M. Shirchenko, K. Smolek, S. Rozov, I. Rozova, S. Vasilyev, E. Yakushev, and I. Zhitnikov (νGeN collaboration)* *Phys. Rev. D* 106, L051101 – Published 8 September 2022

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*27.02.2023*