

Директору ОИЯИ

академику РАН Г.В.Трубникову

от Терехина Аркадия Аркадьевича  
(ФИО, должность, сектор, отдел,

н.с. НЭОСФМС №2 ЛФВЭ  
отделение, лаборатория)

### ЗАЯВЛЕНИЕ

Прошу Вас допустить меня к участию в выборах на замещение вакантной должности

научного сотрудника НЭОСФМС №2 ЛФВЭ

(название должности, сектора, отдела, отделения, лаборатории)

Личная подпись, дата

07.11.22  
 (Терехин А.А.)

Научная биография (Curriculum Vitae)

научного сотрудника НЭОСФМС №2 ЛФВЭ

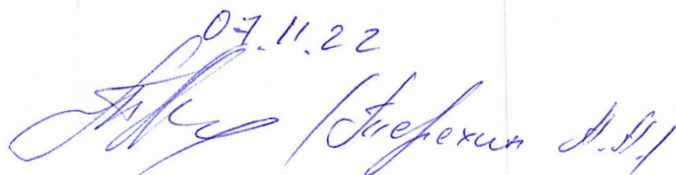
(название занимаемой должности, отдела, сектора, отделения, лаборатории)

Терехина Аркадия Аркадьевича

(Ф.И.О.)

- \* ФИО; Терехин Аркадий Аркадьевич
- \* Дата и место рождения; 02.07.1987
- \* Образование, научные степени, звание: высшее Белгородский Государственный Университет.
- \* Профессиональная научная деятельность (по годам); указать темы по Проблемно-тематическому плану ОИЯИ, в которых Вы участвуете;
  - С 2008 по 2022 гг. проект DSS (Deuteron Spin Structure) 02-1-1097.
  - С 2011 по 2014 гг. проект BM@N (Baryon Matter at Nuclotron) 02-0-1065;
- \* Научные интересы: изучение структуры легких ядер, физика ускорителей.
- \* Научные труды (указать общее количество научных работ, изобретений); 91 публикаций в различных журналах, в том числе рецензируемых.
- \* Премии и награды;
  - Премия им. академика В.В. Векслера для молодых ученых и специалистов ЛФВЭ, 2011г
  - Поощрительная стипендия имени академика М. А. Маркова по направлению "Поляризационные явления в релятивистской ядерной физике" 2011 г.
  - Грант по проведению исследований по приоритетным направлениям науки, технологий и техники Белгородского государственного университета, 2011 г.
  - Поощрительные стипендии имени академика А.М. Балдина по направлению "Поляризационные явления в релятивистской ядерной физике" 2013, 2015.гг.
  - Стипендия имени академика В.И. Векслера по направлению "Поляризационные явления в релятивистской ядерной физике" 2016 г.
  - Премия ЛФВЭ, "Исследование изоскалярных нуклон-нуклонных корреляций на модернизированном комплексе Нуклотрон-М"
  - Грант ОМУС на 2022 г.
  - Стипендия имени А.М.Балдина за цикл работ "Компьютерное моделирование процессов упругого рассеяния для экспериментов на станции внутренних мишеней Нуклотрона ОИЯИ"
- \* Контактные данные (раб.тел.; e-mail-адрес) 62985 [aterekhin@jinr.ru](mailto:aterekhin@jinr.ru)

Личная подпись и дата

07.11.22  
  
Терехин А.А.

**Терехин Аркадий Аркадьевич,**

( Отделение №2 Физики на ускорительном комплексе Нуклотрон-NICA - Научно-экспериментальный отдел спиновой физики малонуклонных систем - Сектор №2 спиновой физики малонуклонных систем, научный сотрудник)

**Список научных работ**

за период с 2017 по 2022гг. (данные на 07.11.2022)

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

1. Investigation of the dp Breakup and dp Elastic Reactions at Intermediate Energies at Nuclotron

*M.Janek et al.*, Few Body Systems, ISSN:ISSN 0177-7963, eISSN:1432-5411, Изд:Springer Wien, 58, 2, 40, 2017

2. The differential cross section in deuteron- proton elastic scattering at 500, 750 and 900 MeV/nucleon

*A.A.Terekhin et al. (DSS Collaboration)*, European Physical Journal A, ISSN:ISSN: 1434-6001, eISSN:ISSN: 1434-601X, Изд:Springer, 55, 8, 129, 2019

3. Study of the dp Elastic and dp Breakup Complementary Processes Using Polarized and Unpolarized Beam of Nuclotron

*M.Janek et al. (DSS Collaboration)*, Few Body Systems, ISSN:ISSN 0177-7963, eISSN:1432-5411, Изд:Springer Wien, 63, 3, 2021

**Публикации в рецензируемых журналах (российские):**

1. Differential Cross Section for Elastic Deuteron–Proton Scattering at the Energy of 700 MeV per Nucleon

*A.A.Terekhin et al.*, Physics of atomic nuclei, ISSN:1063-7788, eISSN:1562-692X, Изд:МАИК Nauka/Interperiodica, Pleiades Publishing, Ltd, 80, 6, 1061–1072, 2017

2. Calibration procedure of the dE–E detectors for dp breakup investigation at nuclotron

*M. Janek et al. (DSS Collaboration)*, Phys.Part.Nucl.Lett., 15, 1, 76-82, 2018

3. Study of the 16-Channel Scintillation Detector Prototype with Silicon Photomultiplier Readout

*A.V. Tishevskiy et al.*, Physics of atomic nuclei, ISSN:1063-7788, eISSN:1562-692X, Изд:МАИК Nauka/Interperiodica, Pleiades Publishing, Ltd, 83, 12, 1691-1694, 2020

**Статьи в научных сборниках и периодических изданиях:**

1. Deuteron beam polarization measurement at 270 MeV at Nuclotron internal target

*Ya.T.Skhomenko et al. (DSS Collaboration)*, EPJ Web Conf., Springer, 201, 04005, 2019

**Материалы научных мероприятий (международные, приглашенный доклад):**

1. XXIII International Baldin Seminar on High Energy Physics Problems, dedicated to the 90-th anniversary of A.M.Baldin -- ISHEPP-2016 ( September 19 - 24, 2016 ), JINR, Dubna, Russia

*Investigation of reactions using polarized and unpolarized deuteron beam at Nuclotron: current status and perspectives*, M.Janek et al., 01028, EDP Sciences - Web of Conferences 17, avenue du Hoggar Parc d'activités de Courtaboeuf 91944 Les Ulis Cedex France, EPJ Web.Conf., 138, 2017

2. XVII WORKSHOP ON HIGH ENERGY SPIN PHYSICS (DSPIN-17), Bogoliubov Laboratory of Theoretical Physics of the Joint Institute for Nuclear Research, Dubna, Russia

*First results on the energy scan of the vector  $A_y$  and tensor  $A_{yy}$  and  $A_{xx}$  analyzing powers in deuteron- proton elastic scattering at Nuclotron*, V.P.Ladygin et al., 012007, IOP Publishing, Journal of Physics: Conf. Series, 938, 2017

3. XVII WORKSHOP ON HIGH ENERGY SPIN PHYSICS (DSPIN-17), Bogoliubov Laboratory of Theoretical Physics of the Joint Institute for Nuclear Research, Dubna, Russia

*Dp breakup reaction investigation using polarized and unpolarized deuteron beam*, M.Janek et al., 012005, IOP Publishing, Journal of Physics: Conf. Series, 938, 2017

4. The XXIV International Baldin Seminar on High Energy Physics Problems  
*Energy dependence of the vector  $A_y$  and tensor  $A_{yy}$  and  $A_{xx}$  analyzing powers in deuteron-proton elastic scattering at large scattering angles*, V.P.Ladygin et al. (DSS Collaboration), 01019, EDP Sciences, EPJ Web of Conferences, 204, 2019

5. XVIII Workshop on High Energy Spin Physics DSPIN-19, ОИЯИ, Дубна, Россия

*Deuteron analyzing powers in dp- elastic scattering at large transverse momenta*, V.P.Ladygin et al. (DSS Collaboration), 012039, IOP Publishing, Journal of Physics: Conference Series, 1435, 1742-6596, 2020

**Материалы научных мероприятий (международные, устный доклад):**

1. ,ISBN 978-5-9530-0526-5 14th International Workshop Relativistic Nuclear Physics: from Hundreds of MeV to TeV (RNP`2019), , Stara Lesna, Slovak Republic

*Latest spin studies of DSS collaboration*, M. Janek et al., 130-135, JINR, Proceedings of the International Workshop - Relativistic Nuclear Physics: from Hundreds of MeV to TeV, 2019

2. ,ISBN 978-5-9530-0526-5 14th International Workshop Relativistic Nuclear Physics: from Hundreds of MeV to TeV (RNP`2019), , Stara Lesna, Slovak Republic

*Study of the deuteron analyzing powers in dp-elastic scattering at the energy of 800 MeV at the Nuclotron*, O. Mezhenka et al., 200-205, JINR, Proceedings of the International Workshop - Relativistic Nuclear Physics: from Hundreds of MeV to TeV, 2019

3. The XXIV International Scientific Conference of Young Scientists and Specialists (AYSS-2020), Joint Institute for Nuclear Research, Dubna, Russia  
*New proton polarimeter at the Nuclotron, 2020*

**Материалы научных мероприятий (международные, секционный доклад):**

1. XVII WORKSHOP ON HIGH ENERGY SPIN PHYSICS (DSPIN-17), Bogoliubov Laboratory of Theoretical Physics of the Joint Institute for Nuclear Research, Dubna, Russia  
*First results on the measurements of the proton beam polarization at internal target at Nuclotron, V.P.Ladygin et al., 012008, IOP Publishing, Journal of Physics: Conf. Series, 938, 2017*

2. XVII WORKSHOP ON HIGH ENERGY SPIN PHYSICS (DSPIN-17), Bogoliubov Laboratory of Theoretical Physics of the Joint Institute for Nuclear Research, Dubna, Russia  
*Measurement of the deuteron beam polarization at internal target at Nuclotron for DSS experiment, Ya.T.Skhomenko et al., 012022, IOP Publishing, Journal of Physics: Conf. Series, 938, 2017*

3. XXIII International Baldin Seminar on High Energy Physics Problems, dedicated to the 90-th anniversary of A.M.Baldin -- ISHEPP-2016 ( September 19 - 24, 2016 ), JINR, Dubna, Russia  
*The differential cross section for the  $dp$ -elastic scattering at 500 to 900 MeV/nucleon, A.Terekhin et al., 03012, EDP Sciences - Web of Conferences 17, avenue du Hoggar Parc d'activités de Courtaboeuf 91944 Les Ulis Cedex France, EPJ Web.Conf., 138, 2017*

*The differential cross section for  $dp$ -elastic scattering at 500-900 MeV/n and large transverse momenta, 2018*

5. The XXIII International Scientific Conference of Young Scientists and Specialists (AYSS-2019), JINR, OMUS, Dubna, Russia, JINR, Dubna, Russia  
*Measurement of the vector and tensor analyzing powers for  $dp$ -elastic scattering at the energy of 800 MeV, O.Mezhenska et al. (DSS Collaboration), 030011, AIP Publishing, AIP Conf.Proc., 2163, 2019*

6. 8th International Conference on Quarks and Nuclear Physics - QNP2018, , Tsukuba, Ibaraki, Japan  
*Spin Studies of the Short-Range Correlations with Polarized Beams at JINR-Nuclotron, V.P.Ladygin et al. (DSS Collaboration), 023023, The Physical Society of Japan, JPS Conf. Proc., 26, 2435-3892, 2019*

7. XVIII Workshop on High Energy Spin Physics DSPIN-19, ОИЯИ, Дубна, Россия  
*Upgrade of the polarimeter at the Internal Target Station at the Nuclotron, A.A.Терехин, 012051, J.Phys.Conf.Ser., 1435, 1, 2019*

8. 23rd International Symposium Spin Physics and Related Phenomena (SPIN2018), Universita degli Studi di Ferrara, Ferrara, Italy  
*Deuteron and proton beams polarimetry at internal target at JINR Nuclotron,*

V.P.Ladygin et al. (DSS Collaboration), 150, Proceedings of Science, Italy, PoS SPIN2018, 2019

9. 23rd International Symposium Spin Physics and Related Phenomena (SPIN2018), Università degli Studi di Ferrara, Ferrara, Italy  
*Spin studies of the short-range correlations at Nuclotron*, V.P.Ladygin et al. (DSS Collaboration), 023, Proceedings of Science, Italy, PoS SPIN2018, 2019

10. XXIV International Baldin Seminar on High Energy Physics Problems: Relativistic Nuclear Physics and Quantum Chromodynamics (ISHEPP'2018), JINR, Dubna, Russia  
*Dp breakup reaction investigation under specific kinematic configurations at ITS of the Nuclotron*, M.Janek et al. (DSS Collaboration), 10012, EDP Sciences, EPJ Web of Conferences, 204, 2019

11. XXIV International Baldin Seminar on High Energy Physics Problems: Relativistic Nuclear Physics and Quantum Chromodynamics (ISHEPP'2018), JINR, Dubna, Russia  
*The differential cross section for dp-elastic scattering at 500-900 MeV/n and large transverse momenta*, A.Terekhin et al. (DSS Collaboration), 10010, EDP Sciences, EPJ Web of Conferences, 204, 2019

12. XXIV International Baldin Seminar on High Energy Physics Problems: Relativistic Nuclear Physics and Quantum Chromodynamics (ISHEPP'2018), JINR, Dubna, Russia  
*Deuteron beam polarimeter at Nuclotron internal target*, Ya.T.Skhomenko et al. (DSS Collaboration), 10002, EDP Sciences, EPJ Web of Conferences, 204, 2019

13. XXIV International Baldin Seminar on High Energy Physics Problems: Relativistic Nuclear Physics and Quantum Chromodynamics (ISHEPP'2018), JINR, Dubna, Russia  
*Study of the deuteron analyzing powers in dp elastic scattering at the energy of 800 MeV*, O.Mezhenska et al. (DSS Collaboration), 10001, EDP Sciences, EPJ Web of Conferences, 204, 2019

14. The 24th European Conference on Few-Body Problems in Physics (EFB24), University of Surrey, Guildford, United Kingdom  
*Latest results concerning short range correlations obtained in the dp elastic and dp breakup processes at Nuclotron, JINR*, M.Janek et al. (DSS Collaboration), 11, SciPost Phys.Proc., 3, 2020

15. LC2019 - QCD on the light cone: from hadrons to heavy ions, Ecole Polytechnique, Palaiseau, France  
*Angular and energy dependence of  $A_y$ ,  $A_{yy}$  and  $A_{xx}$  analyzing powers in dp elastic scattering and dp breakup reaction investigation*, M.Janek et al. (DSS Collaboration), 048, Proceedings of Science, PoS LC2019, 374, 2020

16. LXIX International Conference on Nuclear Physics "Nucleus 2019", Joint Institute for Nuclear Research, Dubna, Russia  
*Studying the Differential Cross Section of Elastic Deuteron-Proton Scattering at 1–2 GeV*, A.A. Terekhin et al., 747-750, Pleades Publishing,

17. 5th International Conference on Particle Physics and Astrophysics (ICPPA 2020), National Research Nuclear University "MEPhI", Moscow, Russia  
*Development of the scintillation detector prototypes with SiPM readout for SPD at NICA*, A.V. Tishevskiy et al., 012051, IOP Science, J.Phys.Conf.Ser., 1690, 1742-6588, 2020

18. ,978-80-89855-13-1,20th Conference of Czech and Slovak Physicist, Jan Mlynar, Miroslav Cieslar, Czech Republic, Prague  
*SHORT-RANGE CORRELATION INVESTIGATION IN DEUTERON INDUCED REACTIONS*, M.Janek et al. (DSS Collaboration), 147-148, EQUILIBRIA, Koshice, Proceedings of the 20th Conference of Czech and Slovak Physicist, 7-10 September 2021, Prague, Czech Republic, 2020

19. XXII International Conference on Few-Body Problems in Physics (FB22), Universite Caen, IUPAP, CNRS, CEA, Caen, France  
*Experimental Study of Few Nucleon Correlations Using Deuteron Beam at Nuclotron*, M.Janek et al. (DSS Collaboration), 493-496 |, Springer, Springer Proc.Phys., 238, 0930-8989, 2020

20. XVIII Workshop on High Energy Spin Physics DSPIN-19, ОИЯИ, Дубна, Россия  
*Upgrade of the polarimeter at the Internal Target Station at the Nuclotron*, A.A.Terekhin et al. (DSS Collaboration), 012051, IOP Publishing, Journal of Physics: Conference Series, 1435, 1742-6596, 2020

21. XVIII Workshop on High Energy Spin Physics DSPIN-19, ОИЯИ, Дубна, Россия  
*The results of the deuteron beam polarization measurement for dp-elastic scattering reaction at 270 MeV energy*, Ya.T.Skhomenko et al. (DSS Collaboration), 012050, IOP Publishing, Journal of Physics: Conference Series, 1435, 1742-6596, 2020

22. XVIII Workshop on High Energy Spin Physics DSPIN-19, ОИЯИ, Дубна, Россия  
*Study of the polarization observables in dp- > dp reaction at the deuteron energy of 800 MeV*, O.Mezhenska et al. (DSS Collaboration), 012042, IOP Publishing, Journal of Physics: Conference Series, 1435, 1742-6596, 2020

23. XVIII Workshop on High Energy Spin Physics DSPIN-19, ОИЯИ, Дубна, Россия  
*Cross section investigation in dp breakup reaction at the intermediate energies*, M.Janek et al. (DSS Collaboration), 012013, IOP Publishing, Journal of Physics: Conference Series, 1435, 1742-6596, 2020

24. The XXIV International Scientific Conference of Young Scientists and Specialists (AYSS-2020), Joint Institute for Nuclear Research, Dubna, Russia  
*Calibration procedure of the dE-E detectors for Deuteron breakup reaction investigation at intermediate energies at nuclotron*, O.Mezhenska et al.(DSS Collaboration), 070002, AIP, AIP Conference Proceedings, 2377, 2021

25. The XXIV International Scientific Conference of Young Scientists and Specialists (AYSS-2020), Joint Institute for Nuclear Research, Dubna, Russia  
*Analyzing power in Quasi-elastic proton-proton scattering at 500 and 650 MeV/nucleon*, I.S.Volkov et al. (DSS Collaboration), 030020, AIP, AIP Conference Proceedings, 2377, 2021

26. The XXIV International Scientific Conference of Young Scientists and Specialists (AYSS-2020), Joint Institute for Nuclear Research, Dubna, Russia  
*Study of the 16-channel scintillation detector prototype with silicon photomultipliers readout*, A.V. Tishevsky et al. (DSS Collaboration), 030017, AIP, AIP Conference Proceedings, 2377, 2021

27. The XXIV International Scientific Conference of Young Scientists and Specialists (AYSS-2020), Joint Institute for Nuclear Research, Dubna, Russia  
*New proton polarimeter at the Nuclotron*, A.A.Terekhin et al. (DSS Collaboration), 030016, AIP, AIP Conference Proceedings, 2377, 2021

**Электронные публикации:**

1. Conceptual design of the Spin Physics Detector  
*V.M. Abazov et al. (SPD proto Collaboration)*, e-Print: 2102.00442 [hep-ex], 2021

**Препринты:**

1. Дифференциальное сечение реакции  $d\text{p}$ - упругого рассеяния при энергии 700 МэВ/нуклон  
*P1-2017-33, 12, А.А.Терехин и др., Изд.отдел ОИЯИ, 2017*

07.11.22  
*(Терехин А.А.)*