


Директору ОИЯИ

академику РАН Г.В.Трубникову

от Киреева Виктора Александровича,
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ЗАЯВЛЕНИЕ

Прошу Вас допустить меня к участию в выборах на замещение вакантной должности
старшего научного сотрудника сектора 2 НЭОФСТИ, Отделения №3 ЛФВЭ

 19.03.24

Научная биография (Curriculum Vitae)

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Список основных научных трудов

1. **Cluster formation near midrapidity -- can the mechanism be identified experimentally?**

V. Kireyeu (Helmholtz Res. Acad. Hesse for FAIR and Dubna, JINR), G. Coci (Helmholtz Res. Acad. Hesse for FAIR and Frankfurt U.), S. Glaessel (Frankfurt U., Inst. Kernphys.), J. Aichelin (SUBATECH, Nantes and Frankfurt U., FIAS), C. Blume (Frankfurt U., Inst. Kernphys.) et al.

e-Print: [2304.12019](https://arxiv.org/abs/2304.12019) [nucl-th]

Accepted for publication in Phys. Rev. C

2. **A Monte Carlo Study of Hyperon Production with the MPD and BM@N Experiments at NICA**

Alexander Zinchenko (LHEP JINR, Dubna), Mikhail Kapishin (LHEP JINR, Dubna), Viktar Kireyeu (LHEP JINR, Dubna), Vadim Kolesnikov (LHEP JINR, Dubna), Alexander Mudrokh (LHEP JINR, Dubna) et al.

Published in: Particles 6 (2023) 2, 485-496

3. **Dynamical mechanisms for deuteron production at mid-rapidity in relativistic heavy-ion collisions from energies available at the GSI Schwerionensynchrotron to those at the BNL Relativistic Heavy Ion Collider**

Gabriele Coci (Helmholtz Res. Acad. Hesse for FAIR and Frankfurt U.), Susanne Gläsel (Frankfurt U., Inst. Kernphys.), Viktar Kireyeu (Helmholtz Res. Acad. Hesse for FAIR and Dubna, JINR), Jörg Aichelin (SUBATECH, Nantes and Frankfurt U., FIAS), Christoph Blume (Frankfurt U., Inst. Kernphys.) et al.

e-Print: [2303.02279](https://arxiv.org/abs/2303.02279) [nucl-th]

Published in: Phys.Rev.C 108 (2023) 1, 014902

4. **Prospects for the (Hyper)Nuclei Study in the Nica Energy Range**

Viktar Kireyeu (Dubna, JINR), Vadim Kolesnikov (Dubna, JINR), Alexander Zinchenko (Dubna, JINR), Veronika Vasendina (Dubna, JINR), Alexander Mudrokh (Dubna, JINR)

Published in: Particles 6 (2023) 1, 399-404

5. **Exploration of the phase diagram within a transport approach**

Olga Soloveva (Helmholtz Res. Acad. Hesse for FAIR and Frankfurt U.), Pierre Moreau (Duke U.), Lucia Oliva (Frankfurt U. and Catania U. and INFN, Catania), Taesoo Song (Darmstadt, GSI), Iliia Grishtnanovskii (Frankfurt U.) et al.

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6. **Midrapidity cluster formation in heavy-ion collisions**

Elena Bratkovskaya (Darmstadt, GSI and Frankfurt U. and Helmholtz Res. Acad. Hesse for FAIR), Susanne Glässel (Frankfurt U.), Viktar Kireyeu (Helmholtz Res. Acad. Hesse for FAIR and Dubna, JINR), Jörg Aichelin (SUBATECH, Nantes and Frankfurt U., FIAS), Marcus Bleicher (Darmstadt, GSI and Frankfurt U. and Helmholtz Res. Acad. Hesse for FAIR) et al.

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7. **Prospects of studying the production of hypernuclei in heavy-ion interactions at the NICA collider at JINR**

Viktar Kireyeu (Dubna, JINR and Helmholtz Res. Acad. Hesse for FAIR), Alexander Mudrokh (Dubna, JINR), Vadim Kolesnikov (Dubna, JINR), Alexander Zinchenko (Dubna, JINR), Veronica Vasendina (Dubna, JINR) et al.

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8. **Status and initial physics performance studies of the MPD experiment at NICA**
MPD Collaboration • [V. Abgaryan](#) (Yerevan Phys. Inst. and Dubna, JINR) et al.
e-Print: [2202.08970](#) [physics.ins-det]
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9. **Monte Carlo Studies of the MPD Detector Performance for the Measurement of Hypertritons in Heavy-Ion Collisions at NICA Energies**
[V.I. Kolesnikov](#) (Dubna, JINR), [V.A. Kireyeu](#) (Dubna, JINR), [A.A. Mudrokh](#) (Dubna, JINR), [V.A. Vasendina](#) (Dubna, JINR), [A.I. Zinchenko](#) (Dubna, JINR) et al.
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10. **Deuteron production in ultrarelativistic heavy-ion collisions: A comparison of the coalescence and the minimum spanning tree procedure**
[Viktar Kireyeu](#) (Dubna, JINR and Helmholtz Res. Acad. Hesse for FAIR), [Jan Steinheimer](#) (Frankfurt U., FIAS), [Jörg Aichelin](#) (Frankfurt U., FIAS and SUBATECH, Nantes), [Marcus Bleicher](#) (Helmholtz Res. Acad. Hesse for FAIR and Frankfurt U. and Darmstadt, GSI and Julich, NIC), [Elena Bratkovskaya](#) (Helmholtz Res. Acad. Hesse for FAIR and Frankfurt U. and Darmstadt, GSI)
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11. **Dynamical cluster and hypernuclei production in heavy-ion collisions**
[Susanne Gläsel](#) (Frankfurt U.), [Viktar Kireyeu](#) (Dubna, JINR), [Vadim Voronyuk](#) (Dubna, JINR), [Jörg Aichelin](#) (SUBATECH, Nantes and Frankfurt U., FIAS), [Christoph Blume](#) (Frankfurt U.) et al.
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12. **MPD Prospects for the Study of Hadron and (hyper)nuclei Production at NICA Energies**
MPD Collaboration • [A. Mudrokh](#) (Dubna, JINR) et al.
Published in: Phys.Atom.Nucl. 85 (2022) 6, 1007-1010
13. **Performance Evaluation of the Upgraded BM@N Setup for Strangeness Production Studies**
[A. Zinchenko](#) (Dubna, JINR), [M. Kapishin](#) (Dubna, JINR), [V. Kireyeu](#) (Dubna, JINR), [I. Rufanov](#) (Dubna, JINR), [V. Vasendina](#) (Dubna, JINR)
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14. **Performance for Directed Flow Measurements of the MPD Experiment at NICA Collider**
MPD Collaboration • [P. Parfenov](#) (Moscow Phys. Eng. Inst.) et al.
Published in: Phys.Part.Nucl. 52 (2021) 4, 618-623,
15. **Cluster and hypercluster production in relativistic heavy-ion collisions within the parton-hadron-quantum-molecular-dynamics approach**
[Susanne Gläsel](#) (Frankfurt U.), [Viktar Kireyeu](#) (Dubna, JINR and Darmstadt, GSI), [Vadim Voronyuk](#) (Dubna, JINR and Darmstadt, GSI), [Jörg Aichelin](#) (SUBATECH, Nantes and Frankfurt U., FIAS), [Christoph Blume](#) (Frankfurt U.) et al.
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16. **K^0 meson production in inelastic p+p interactions at 158 GeV/c beam momentum measured by NA61/SHINE at the CERN SPS**

NA61/SHINE Collaboration • [A. Acharya](#) (Jan Kochanowski U.) et al.

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17. **Cluster dynamics studied with the phase-space Minimum Spanning Tree approach**

[Viktar Kireyeu](#) (Dubna, JINR and Helmholtz Res. Acad. Hesse for FAIR and Darmstadt, GSI)

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18. **Properties of the quark-gluon plasma created in heavy-ion collisions**

[Pierre Moreau](#) (Duke U.), [Olga Soloveva](#) (Goethe U., Frankfurt (main)), [Ilia Grishmanovskii](#) (Goethe U., Frankfurt (main)), [Vadim Voronyuk](#) (Dubna, JINR), [Lucia Oliva](#) (Goethe U., Frankfurt (main)) et al.

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19. **Prospects for the study of the strangeness production within the PHQMD model**

[V. Kireyeu](#) (Dubna, JINR), [J. Aichelin](#) (SUBATECH, Nantes), [E. Bratkovskaya](#) (Darmstadt, GSI and Goethe U., Frankfurt (main)), [V. Kolesnikov](#) (Dubna, JINR), [A. Mudrokh](#) (Dubna, JINR) et al.

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20. **PHQMD—A Microscopic Transport Approach for Heavy-Ion Collisions and Cluster Formation**

[Jörg Aichelin](#) (SUBATECH, Nantes and Frankfurt U., FIAS), [M. Winn](#) (SUBATECH, Nantes), [E.L. Bratkovskaya](#) (Darmstadt, GSI and Frankfurt U.), [Arnaud Le Fèvre](#) (Darmstadt, GSI), [Yvonne Leifels](#) (Darmstadt, GSI) et al.

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21. **The comparison of methods for anisotropic flow measurements with the MPD Experiment at NICA**

MPD Collaboration • [P. Parfenov](#) (Moscow Phys. Eng. Inst.) et al.

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22. **Perspective study of strangeness with the MPD detector at NICA**

[Vadim Kolesnikov](#) (Dubna, JINR), [Viktar Kireyeu](#) (Dubna, JINR), [Alexander Mudrokh](#) (Dubna, JINR), [Veronika Vasendina](#) (Dubna, JINR), [Alexander Zinchenko](#) (Dubna, JINR)

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23. **Measurements of π^{\pm} , K^{\pm} , p and \bar{p} spectra in $^{7}\text{Be}+^{9}\text{Be}$ collisions at beam momenta from 19 A to 150 A GeV/c with the NA61/SHINE spectrometer at the CERN SPS**

NA61/SHINE Collaboration • [A. Acharya](#) (Jan Kochanowski U.) et al.

e-Print: [2010.01864](#) [hep-ex]

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24. **Hadron production in elementary nucleon–nucleon reactions from low to ultra-relativistic energies**
V. Kireyeu (Dubna, JINR), I. Grishmanovskii (Frankfurt U.), V. Kolesnikov (Dubna, JINR), V. Voronyuk (Dubna, JINR), E. Bratkovskaya (Frankfurt U. and Darmstadt, GSI)
e-Print: [2006.14739](#) [hep-ph]
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25. **Performance of the MPD Detector in the Study of the Strangeness to Entropy Ratio in Heavy-Ion Collisions at the NICA Accelerator Complex**
V. Kolesnikov (Dubna, JINR), V. Kireyeu (Dubna, JINR), A. Mudrokh (Dubna, JINR), A. Zinchenko (Dubna, JINR), V. Vasendina (Dubna, JINR)
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26. **Measurements of Ξ^- and $\overline{\Xi}^+$ production in proton-proton interactions at $\sqrt{s_{NN}} = 17.3$ GeV in the NA61/SHINE experiment**
NA61/SHINE Collaboration • A. Aduszkiewicz (Warsaw U.) et al.
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27. **Prospects for the Study of Event-by-Event Fluctuations and Strangeness Production with the MPD Detector at NICA**
A.A. Mudrokh (Dubna, JINR), V.I. Kolesnikov (Dubna, JINR), V.A. Vasendina (Dubna, JINR), V.A. Kireyeu (Dubna, JINR)
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28. **Exploring the partonic phase at finite chemical potential in and out-of equilibrium**
O. Soloveva (Frankfurt U.), P. Moreau (Frankfurt U. and Duke U.), L. Oliva (Frankfurt U.), V. Voronyuk (Dubna, JINR and BITP, Kiev), V. Kireyeu (Dubna, JINR) et al.
e-Print: [2001.05395](#) [nucl-th]
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29. **A new review of excitation functions of hadron production in \sqrt{s} collisions in the NICA energy range**
V. Kolesnikov (Dubna, JINR), V. Kireyeu (Dubna, JINR), V. Lenivenko (Dubna, JINR), A. Mudrokh (Dubna, JINR), K. Shtejer (Dubna, JINR) et al.
e-Print: [1912.01979](#) [nucl-ex]
Published in: Phys.Part.Nucl.Lett. 17 (2020) 2, 142-153
30. **Parton Hadron Quantum Molecular Dynamics (PHQMD)—A Novel Microscopic N-Body Transport Approach For Heavy-Ion Dynamics and Hypernuclei Production**
E. Bratkovskaya (Darmstadt, GSI and Frankfurt U.), Jörg Aichelin (SUBATECH, Nantes and Frankfurt U., FIAS), Arnaud Le Fèvre (Darmstadt, GSI), Viktor Kireyeu (Dubna, JINR), Vadim Kolesnikov (Dubna, JINR) et al.
e-Print: [1911.11892](#) [nucl-th]
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31. **PHQMD Model for the Formation of Nuclear Clusters and Hypernuclei in Heavy Ion Collisions**

V. Kireyeu (Dubna, JINR), J. Aichelin (Nantes U.), E. Bratkovskaya (Darmstadt, GSI and Frankfurt U.), A. Le Fèvre (Darmstadt, GSI), V. Lenivenko (Dubna, JINR) et al.

e-Print: [1911.09496](#) [nucl-th]

Published in: Bull.Russ.Acad.Sci.Phys. 84 (2020) 8, 957-961, Izv.Ross.Akad.Nauk Ser.Fiz. 84 (2020) 8, 1161-1166

32. **Parton-hadron-quantum-molecular dynamics: A novel microscopic n -body transport approach for heavy-ion collisions, dynamical cluster formation, and hypernuclei production**

J. Aichelin (SUBATECH, Nantes and Frankfurt U., FIAS), E. Bratkovskaya (Darmstadt, GSI and Frankfurt U.), A. Le Fèvre (Darmstadt, GSI), V. Kireyeu (Dubna, JINR), V. Kolesnikov (Dubna, JINR) et al.

e-Print: [1907.03860](#) [nucl-th]

Published in: Phys.Rev.C 101 (2020) 4, 044905

33. **K^0 meson production in inelastic p+p interactions at 31, 40 and 80 GeV/c beam momentum measured by NA61/SHINE at the CERN SPS**

NA61/SHINE Collaboration • N. Abgrall (Geneva U.) et al.

e-Print: [2402.17025](#) [hep-ex]

34. **Measurements of π^\pm , K^\pm , p and \bar{p} spectra in $^{40}\text{Ar}+^{45}\text{Sc}$ collisions at 13.4 to 150.4 GeV/c**

NA61/SHINE Collaboration • H. Adhikary (Jan Kochanowski U.) et al.

e-Print: [2308.16683](#) [nucl-ex]

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