Andrei **Katsevich**

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Education

MIPT (Moscow Institute of Physics and Technology) — *Moscow, Russia*

B.S. in Applied Mathematics and Physics, Landau Phystech School of Physics and Research — *August 2019 - present*

Educational Program «Quantum field theory, string theory and mathematical physics»

- GPA: 5.00/5.00 (9.79/10.00) – ranked №1 of the department.

Work Experience

L.D. Landau Institute for Theoretical Physics of Russian Academy of Sciences — *Chernogolovka, Russia*

Laboratory Assistant Researcher — *July 2022 - present*

- I study perturbed minimal models of two-dimensional conformal field theory with my scientific advisor Alexey Litvinov (Landau Inst.).

State Educational Institution "Brest Lyceum №1 named after A.S. Pushkin" — *Brest, Belarus*

Physics Teacher — *July 2020, 2021, 2022*

- Prepared lyceum students for Belarusian Republican and International Physics Olympiads.

Publications

The eigenvalue spectrum of a large real antisymmetric random matrix — *In preparation*

Andrei Katsevich, Pavel Meshcheriakov

- Using the replica method, we study the spectrum of a random antisymmetric matrix with nonzero mean.

Schools

Theoretical Physics Summer Practicum 2022 — *Remote*

Organizers: L. Levitov (MIT), A. Boyarsky (EPFL), L. Spodyneiko (Caltech, MIT), G. Tarnopolsky (University of Carnegie Mellon), A. Zhiboedov (CERN) and others with support of KNU and Kharkiv University — *August 2022*

- Participated in the project of Grigory Tarnopolsky "Introduction to Random Matrix Theories in Quantum Physics".

Theoretical Physics Summer Practicum 2021 — *Remote*

Organizers: L. Levitov (MIT), D. Abanin (Princeton University), N. Nekrasov (Simons Center for Geometry and Physics), A. Sadofyev (Santiago de Compostela U., IGFAE) and others with support of Skoltech, MIPT and HSE — *August 2021*

- Was selected for the Practicum, being in the 1-st place in the competition for solving problems from the initial sections of physics.
- Participated in the project of Andrey Sadofyev "Hydrodynamics as an Effective Field Theory".

Skills

Physical background	General Physics, Analytical mechanics, Classical field theory, General theory of relativity, Cosmology, Quantum Mechanics, Quantum field theory, Conformal field theory, Statistical physics
Mathematical background	Mathematical analysis, Linear algebra, Differential equations, Complex analysis, Probability Theory, Lie groups and algebras and their representations, Integrable systems, Random matrix theory
Landau theoretical minimums	Mathematics I, Mechanics, Field theory, Mathematics II, Quantum mechanics
Other	LaTeX (some of my solutions, mostly in Russian), Wolfram Mathematica, some of my QFT seminars

Achievements

University

2022	**1-st Degree Diploma (Absolute Winner),** MIPT Olympiad in Theoretical Physics	*Moscow, Russia*
2022-2021	**Winner (2022), Prize-winner (2021),** MIPT Traditional Student Olympiad in Physics	*Moscow, Russia*
2022	**Winner,** All-Russian Student Olympiad "I'm a professional" in Physics held by Yandex	*Moscow, Russia*
2022	**Prize-winner,** All-Russian Student Olympiad "I'm a professional" in Mathematics held by Yandex	*Moscow, Russia*

School

2019	**Bronze medal**, 50th International Physics Olympiad (IPhO)	*Tel Aviv, Israel*
2019	**1-st Degree Diploma (Absolute Winner)**, International Mathematical Olympiad of the Borderland for students of grades 9-11 (Brest-Bialystok-Vilnius-Smolensk-Odessa)	*Brest, Belarus*
2019-2017	**3-rd (2017), 1-st (2018), 2-nd (2019) Degree Diploma**, Belarusian Republican Physics Olympiad (BelPhO)	*Belarus*
2018	**2-nd Place Diploma**, Physics Olympiad on International Belarusian-Syrian session for gifted children ”Intellect. Creativity. Sport”	*NDC ”Zubrenok”, Belarus*

Extracurricular Activity

MIPT Mentorship

Moscow, Russia

Mentor

September 2022 - present

- Helped younger students learn the basics of mathematical physics.
- Theme of the mentor project: ”Introduction to random matrix theory”.

MIPT Visiting Olympiad at the SEI ”Brest Lyceum №1 named after A.S. Pushkin”

Brest, Belarus

Main organizer

January 2020, 2021, 2022, 2023

- Four times held the Visiting Olympiad in Brest, which was attended by about 60 schoolchildren.