

2022

MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY



MIPT in World University Rankings



201-250 (#2 in Russia)

TOP 250 THE Life Sciences

№ 71 THE Physical Sciences
№ 72 THE Computer Science



290 (#6 in Russia)

TOP 100 QS Natural Sciences
QS Mathematics

№ 41 QS Physics & Astronomy
№ 64 QS Natural Sciences
№ 89 QS Mathematics

TOP 250 QS Engineering – Electrical & Electronic

TOP 300 QS Engineering & Technology
QS Computer Science and Information Systems



MIPT at a glance

ALUMNI



**Konstantin
Novoselov**
Nobel prizeman



**Alexander
Kaleri**
Pilot astronaut,
Hero of Russia



Andrei Geim
Nobel prizeman



**Ratmir
Timashev**
Founder of
Aeliet
Software and
Veem Software



**Sergey
Belousov**
Founder and
CEO of Acronis



David Yang
Founder and
Director of the
board of ABBYY

NUMBERS



Nobel prizemen among
professors and alumni

>150 chairs

9097 students

Founded in **1951**

History



**November 25,
1946**

Department of
Physics and
Technology
(Moscow State
University)

**October 1,
1951**

Moscow Institute of
Physics and
Technology

**MIPT –
Leading Soviet University**

1951-1959

1951 – first MIPT
graduates
1956 – Nobel Prize
in Chemistry: N.
Semyonov
1958 – Nobel Prize
in Physics: I. Tamm

1960-1990

1960 – Lenin Prize for
automatic
circumlunar flight: B.
Rauschenbach
1962 – Nobel Prize in
Physics: L. Landau
1964 – Nobel Prize in
Physics: A. Prokhorov
1970 – Fields Medal:
S. Novikov
1975 – Nobel Peace
Prize: A. Sakharov
1978 – Nobel Prize in
Physics: P. Kapitsa

1997-2021

2003 – Nobel Prize
in Physics:
A. Abrikosov and V.
Ginzburg
2004 – Fock Prize: V.
Veselago
2009 – Named a
National Research
University
2010 – Nobel Prize
in Physics:
A. Geim and K.
Novoselov

Today

National Research
University

THE #2 in Russia

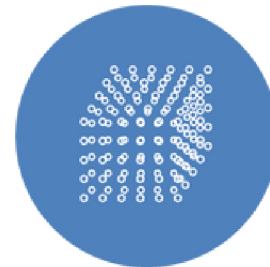
Phystech Schools



Radio Engineering and Computer Technology

Major fields:

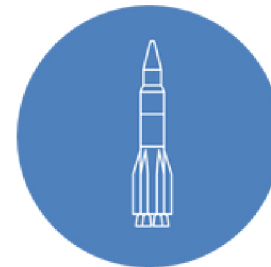
- Telecommunications & Wireless Networks
- Radiophysics & Radar Engineering
- CPU Architectures & Design of Advanced Microprocessors



Fundamental and Applied Physics

Major fields:

- Particle Physics & Cosmology
- Physics of Nanostructures & Condensed Matter
- Quantum Physics



Aerospace Technology

Major fields:

- Space Technology
- Aviation Technology
- Earth & Deep Space Research



Applied Mathematics and Informatics

Major fields:

- Artificial Intelligence
- Big Data
- Mathematical Modelling



Biological and Medical Physics

Major fields:

- Bioinformatics
- Active Ageing & Precision Medicine
- Medical Engineering & Diagnostic Technologies



Electronics, Photonics and Molecular Physics

Major fields:

- 2D materials
- Nanoelectronics & Quantum Data Processing
- Chemical Physics & Molecular Electronics

MIPT Campus

Space for creativity of students and staff

Campus area, hectares

75 → 96 → 110
2013 → 2019 → 2024

Academic buildings area, sq. meters

94K → 117K → 140K
2013 → 2019 → 2024

Dormitories area, sq. meters

46K → 93K → 138K
2013 → 2019 → 2024



Library
open 24/7



Sports center,
swimming pool,
stadium



Health Care
Center



Comfortable dorms
and buildings



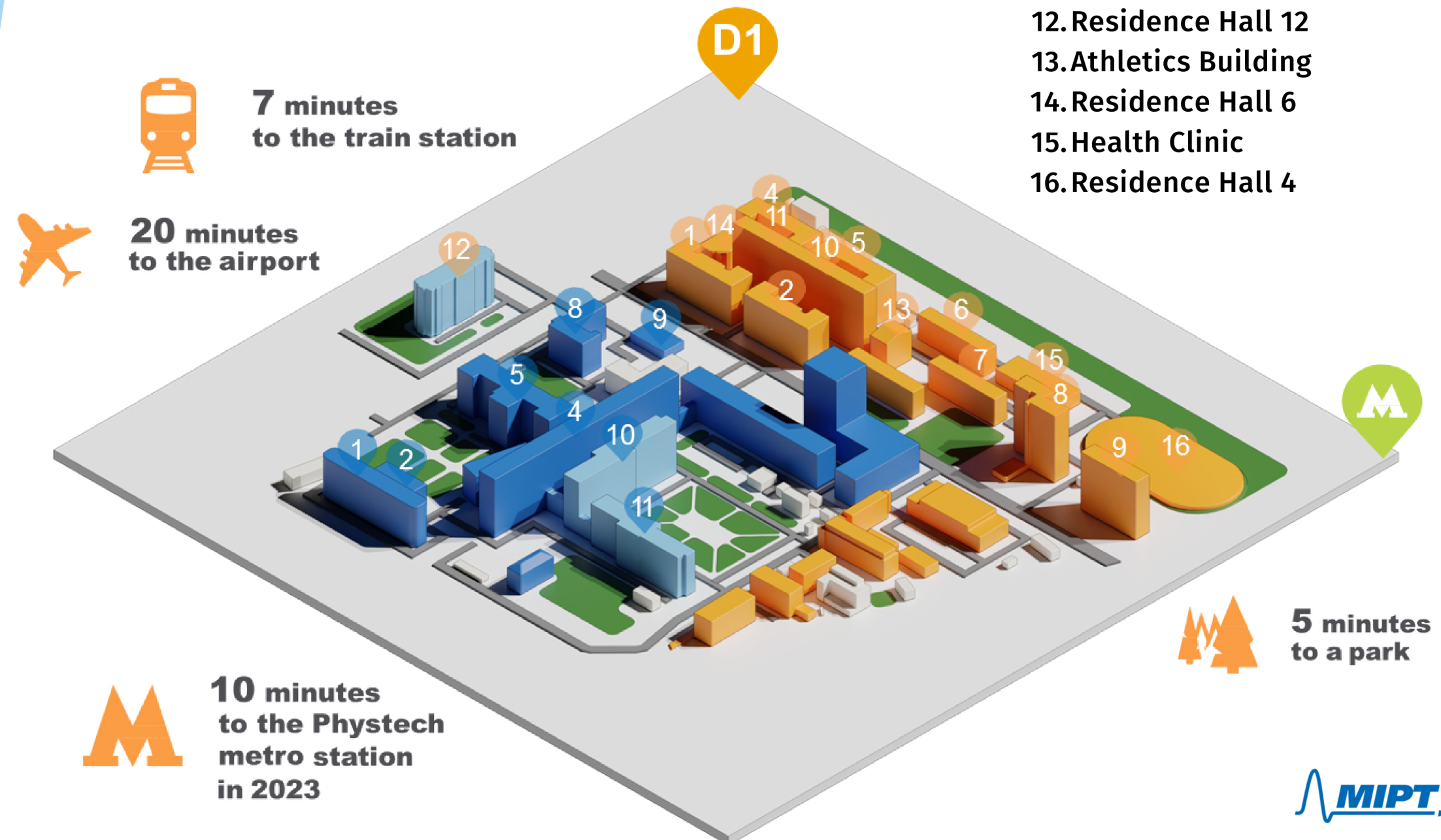
Security

MAIN BUILDINGS

1. Biopharmaceutical Cluster
2. Radio Engineering building
3. conference hall
4. Main building
5. Laboratory building
6. Audience building
7. Dining Hall
8. New building (Microelectronics building)
9. Applied Mathematics Building
10. Digital Technology Center
11. Hard-to-recover minerals center

OTHER BUILDINGS

1. Residence Hall 1
2. Residence Hall 2
3. Residence Hall 3
4. Residence Hall 9
5. Residence Hall 8
6. Residence Hall 7
7. Athletics Building 2
8. Residence Hall 10
9. Residence Hall 11
10. Athletics Building 1
11. Stadium
12. Residence Hall 12
13. Athletics Building
14. Residence Hall 6
15. Health Clinic
16. Residence Hall 4



"Phystech System" & Educational process

The "Phystech System" was invented and formulated by the Nobel laureates [Pyotr Kapitsa](#), [Lev Landau](#) and [Nikolay Semenov](#)

Selecting the most talented and renowned scholars

- On-site admission committees
- External Physics and Technical School

Engaging representatives of research institutions & industry to hold seminars and workshops; individual work in a creative environment

- Individual approach to each student, development of their potential
 - Focus on specific disciplines without overloading students with secondary general subjects

Advanced fundamental theoretical background coupled with hands-on training

- Students' participation in research- and scientific work starting from the 2nd or 3rd year in partner organization

Student internships in partner industrial organizations and research institutions with the cutting-edge equipment

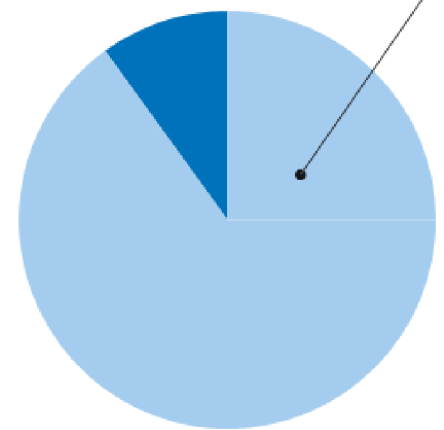
- Upon completion of the training, graduates have not only theoretical knowledge, but also practical engineering and experimental research skills and are fully ready to work

Course ratio

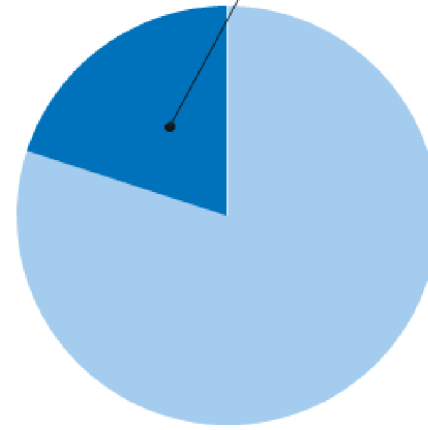
Fundamental courses

Specialized courses

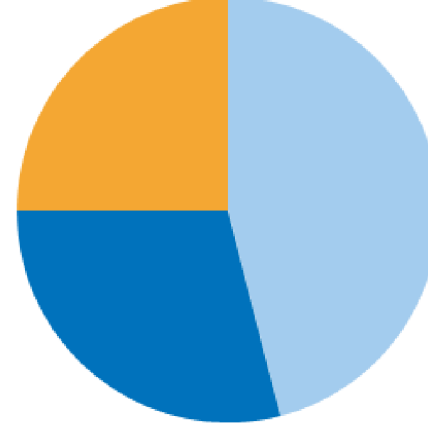
Partner companies



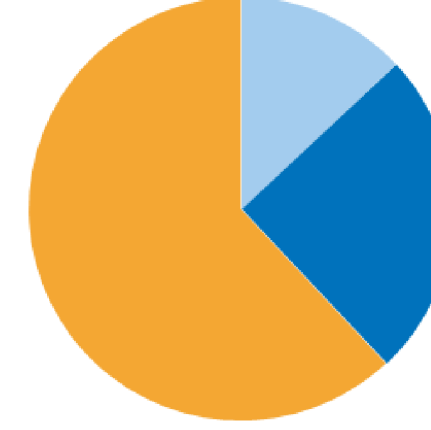
1st year



2nd year

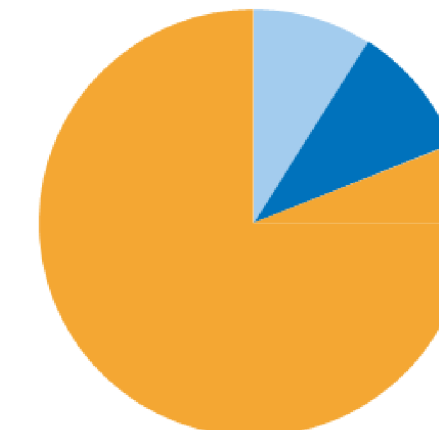


3rd year



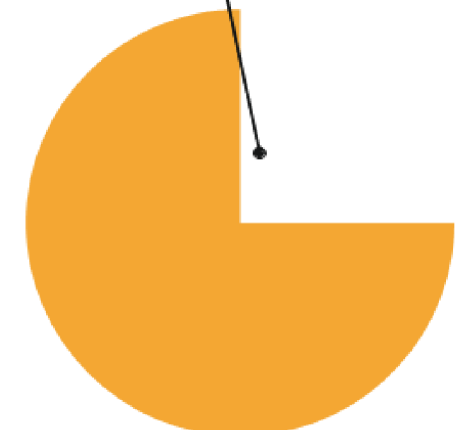
4th year

Bachelor's



1st year

Master's



2nd year

- Intensive fundamental courses in Mathematics, Physics and Computer Science
- Specialized elective courses from the second year of study
- Courses and research projects at MIPT partner companies (incl. Russian Academy of Science) from the third year on
- Most Master's degree courses provided by more than 100 partner companies



English-taught programs

BSc Computer Science

BSc Biomedical Engineering

MSc Advanced Combinatorics

MSc Contemporary Combinatorics

MSc Applied Bioinformatics

MSc Medical Biotechnology

MSc Modern State of Artificial Intelligence



PhD Mathematics and Mechanics

PhD Computer and Information Sciences

PhD Physics and Astronomy

PhD Chemical Sciences

PhD Earth Sciences

PhD Biological Sciences

PhD Informatics and Computer Engineering

PhD Electronics, Radio Engineering and Communication Systems

PhD Photonics, Instrumentation, Optical and Biotechnology Systems and Technologies

PhD Aviation and space technology

English-taught Bachelor's degree programs

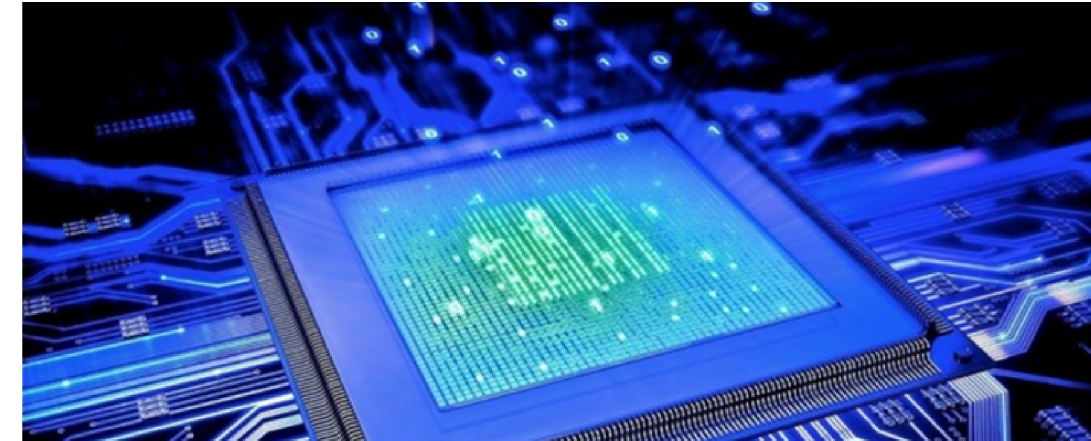
Biomedical Engineering



This degree program will attract outstanding students who wish to be equipped with the tools to be leaders in the field of biomedical engineering in the 21st Century.

The course includes a solid foundation in engineering, mathematics, and natural sciences — biology, chemistry, and physics. In the frameworks of Biomedical engineering program students study devices, systems, complexes and basic medical technologies, as well as methods of research, therapeutic effect, information processing in health care and various fields of biomedical research.

Computer Science



The computer science program is based on the fundamentals of programming and computational theory. It provides the knowledge and skills that serve as a solid foundation for effectively applying digital processes to the issues of broad interest to the global society.

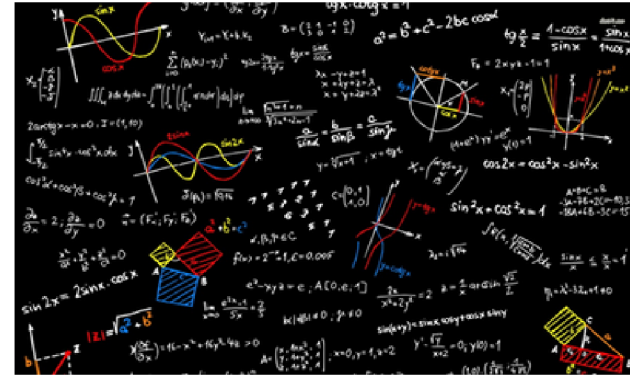
The course also offers opportunities for undergraduate research and international study.

English-taught Master's degree programs



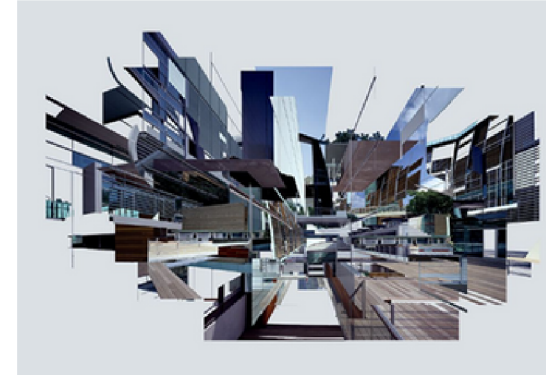
Modern State of Artificial Intelligence

This online program aims to introduce students to the contemporary state of Machine Learning and Artificial Intelligence. It provides comprehensive practical experience and builds thorough theoretical background. Combined together, these skills and knowledge become very valuable in the rapidly emerging field of Artificial Intelligence.



Advanced Combinatorics

The program is focused on modern aspects of combinatorics (discrete mathematics) and its applications in computer science and in the theory of complex networks.



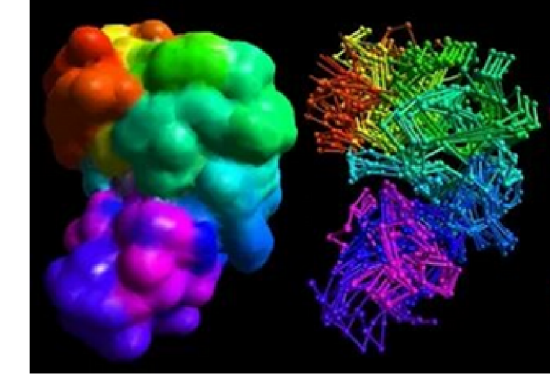
Contemporary Combinatorics

The Program will create a solid foundation of knowledge of modern discrete mathematics and its applications in computer science and in the analysis of complex networks. This program is focused on the modern aspects of combinatorics (discrete mathematics).



Medical Biotechnology

Medical Biotechnology has enormous potential for developing new solutions to improve human health. Through the understanding of the molecular and cellular mechanisms of diseases, biotechnology plays an essential role in developing drugs, vaccines, therapies and diagnostic tests.



Applied Bioinformatics

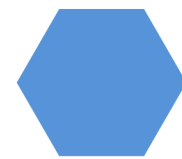
This research and training program aims to provide students with necessary skills and knowledge in using the large-scale biological data obtained in the course of biological experiments, including various “omics” as well as epidemiological and pharmacological studies.

PhD for international students

Find a perfect research supervisor for you!



Over 150 PhD research programs in English



For more information:



Foundation course for international students



MIPT offers a 1-year Russian Language course for international students who would like to better adjust to life in Russia and to learn the basics of Russian *before* their degree program at MIPT.

Upon graduation international listeners get:

- **B1** language proficiency in Russian
- Certificate of Completion
- Access to a wider range of programs



For more information:



THANK YOU FOR YOUR ATTENTION AND SEE YOU ON CAMPUS!



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