DARE TO BE PART OF SOMETHING BIGGER
DARE TO BE A PHYSTECH
DMITRY LIVANOV
Rector of MIPT

Coming to study at MIPT is far more than your opportunity to gain a top-notch tertiary education at one of the world-leading universities. This will be your golden ticket into a unique community of the most talented minds interested in science, who are not only eager to study, but also passionate about knowledge that will make them pioneers in a variety of cutting-edge research areas and enable them to be at the forefront of innovative technologies that will markedly shape the world.

In addition to the opportunities to study under most influential researchers, work in advanced and well-equipped laboratories, and enjoy the company of the best students and professors ever, studying at MIPT means living on our beautiful, cozy campus with all the comforts like sports and lots of extracurricular activities.

At MIPT, we are proud of our alumni - a large number of most successful entrepreneurs, tech founders, legendary scientists, Nobel laureates, philanthropists, politicians and even astronauts and famous artists. Yet, no matter what they do and in whatever field they succeed, they remain phystechs, as they traditionally call each other as graduates of Phystech – the unofficial name of MIPT.

So, do not just obtain your education, dare to dream big. Dare to be a PHYSTECH!
MIPT AT A GLANCE

Moscow Institute of Physics and Technology (MIPT) known informally as Phystech, is a leading Russian university which trains specialists in theoretical and applied physics, applied mathematics, IT, life sciences and related disciplines.

#201-250 in the world in Russia
#47 Physical Sciences in Russia
#91 Computer Science in Russia
#281 in the world in Russia
#50 Physics & Astronomy in Russia
#66 Natural Sciences in Russia
#92 Mathematics in Russia

UNIQUE “PHYSTECH SYSTEM”

The Phystech System was formulated by Nobel laureates Pyotr Kapitsa, Lev Landau, and Nikolay Semenov.

Pyotr Kapitsa, Nobel laureate in physics and one of the “Founding Fathers” of MIPT, outlined the following basic principles in 1946 of the Phystech System:

Leading scientists from key institutions (such as universities, research centers and commercial knowledge-based organization where students do research and write their theses) shall be involved in student education using the high-tech equipment of these institutions.

Training in key institutions implies an individual approach to each student. Each second-third year student shall be involved in scientific work.

UNIQUE “PHYSTECH SYSTEM”: EDUCATION PROCESS

Selecting the most talented, brilliant scholars

Engagement of researchers to hold seminars and workshops for students and for 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

Training of students in partner industrial organizations and research institutions using cutting-edge equipment

Upon completion of training, graduates obtain not only theoretical knowledge, but also practical engineering and experimental research skills and are fully ready to work.
FAMOUS ALUMNI OF MIPT

It is hard to find countries where there are no MIPT alumni. The strong alumni community is spread all over the world and include top range scientists, businessmen, politicians, people of art, many of whom are awardees of prestigious international prizes. “Phystechs” – the name that alumni use to identify themselves – and MIPT stand proud and supportive to each one of them.
PHYSTECH SCHOOLS

PHYSTECH SCHOOL OF RADIO ENGINEERING AND COMPUTER SCIENCE

PHYSTECH SCHOOL OF ELECTRONICS, PHOTONICS AND MOLECULAR PHYSICS

LANDAU PHYSTECH SCHOOL OF PHYSICS AND RESEARCH

PHYSTECH SCHOOL OF APPLIED MATHEMATICS AND COMPUTER SCIENCE

PHYSTECH SCHOOL OF AEROSPACE TECHNOLOGY

PHYSTECH SCHOOL OF BIOLOGICAL AND MEDICAL PHYSICS
DEGREE PROGRAMS IN ENGLISH

Bachelor Programs
- Computer Science
- Biomedical Engineering

Master Programs
- Advanced Combinatorics
- Contemporary Combinatorics
- Modern State of Artificial Intelligence
- Integrated Structural Biology and Genetics
- Neural Networks & Neural Computers
- Advanced 2D Materials

Applied Bioinformatics
- Cyber Security
- Medical Biotechnology
- Beam-Plasma Systems & Technologies
- Aerodynamics

Doctoral Programs
Over 150 themes are available for studying PhD in English. Check the booklet and find a perfect research supervisor for you!
As the number of online courses and degree programs greatly expanded during the past decade, so did the number of exams administered online. We are dedicated to investing in the latest technologies as educational systems evolve. MIPT was the first in line that started developing its own online proctoring system. That is how Exams.mipt.ru was created. It was first applied during our 2019/20 admission campaign in order to give an opportunity for international applicants to take real exams from their home.

Since then, we have put a lot of effort to enhance our technology by making it scalable and more accessible for users from remote locations with low bandwidth internet connection. This technology became even more significant due to the COVID-19 spreading. Thus exams.mipt was not only hosted 2020/21 MIPT admission campaign and internal student exams but also due to its credibility was a partner in organizing pre-professional exams for Moscow schoolchildren among with Moscow Department of Education and Science.

In addition, MIPT hosted exams for Russian government scholarship program of the Rosotrudnichestvo that operates under the jurisdiction of the Ministry of Foreign Affairs of the Russian Federation. Throughout this time, there were more than 200 real exams being held in our systems with up to 250 participants simultaneously and more than 2000 real students and applicants in total that participated in one or more of our exams. Now we are working on the capacity increasing and state-of-the-art artificial intelligence and behavior monitoring implementation to help us provide the best service possible.

WE ARE ON THE WEB!

One of the MIPT priorities is to create a flexible educational system meeting the needs of employers and graduates. As one of the leading Russian universities in the area of technology, we remain confident that using an up-to-date internet-based distance learning system, hold an enormous promise for disseminating quality higher education.

There are 75 MIPT courses at Coursera about eight different specializations: computer science, business, physical science and engineering, data science, math and logic, language learning, personal development, social sciences, and information technologies. Several available in English. 71,847 of all the 1,063,118 learners have already completed the education and received certificates. The most popular course is «Math and Python for the Analysis» with 76,723 followers. All MIPT courses are available for free for all MIPT students and alumni.

MIPT has several accounts at Stepik, such as MIPT DITED, MIPT Deep Learning School and MIPT Phystech. Courses are available in Russian. MIPT DITED coursers are oriented on competitive programming and artificial intelligence. There are three courses: «Quick start at the Competitive Programming», «C/C++ Basics for the Competitive Programming» and «Quick start at the Artificial Intelligence». All of these courses launched in 2020 and have already reached 21,771 followers. Phystech School of Applied Mathematics and Informatics uses Stepik as an educational platform for the «Deep Learning School» program students. 9 courses have been launched since 2019. There are more than 17,700 account followers in total. MIPT Phystech is the oldest account with only one course «Introduction to Molecular Biology and Biomedicine» launched in 2017. The course has more than 31,000 learners and 264 feedbacks with the average rate 4.8 out of 5.

Online Master programs

Also there are two online English-taught Master programs “Contemporary Combinatorics” and “Modern State of Artificial Intelligence” available.

For more information please check out the following QR-codes:
WE ARE ON THE WEB!

MIPT on Coursera

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Utilizing Distance Learning Technology for admission tests

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Stepik is a Russian (St. Petersburg) platform that is designed to create and distribute interactive educational content as well as provide various types of automatically graded assignments with real-time feedback. It is suitable for both a module of a learning activity, from private to campus classes to massive open online courses (MOOCs).
### Priority Research Fields

#### Exploratory research to create new technologies

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D materials</td>
<td>20 materials for microelectronics, power industry, and special engineering</td>
</tr>
<tr>
<td>Quantum technology</td>
<td>Universal and specialized quantum computers, quantum cryptography</td>
</tr>
<tr>
<td>Biophysics</td>
<td>Mechanisms of aging, genetic engineering, epigenetics, biomedical collproducts</td>
</tr>
</tbody>
</table>

#### Development of applied technologies

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial intelligence</td>
<td>Conversational AI, machine learning, robotics, expert systems, cybersecurity, technical vision</td>
</tr>
<tr>
<td>Arctic technology</td>
<td>Communication, autonomous power systems, extreme medicine, navigation, mining</td>
</tr>
<tr>
<td>Space technology</td>
<td>Space communication, avionics, radio telescope networks</td>
</tr>
</tbody>
</table>

- **2.5 billion rubles** (2016-2021)
- **3.1 billion rubles** (2016-2021)
- **1.1 billion rubles** (2016-2021)

### MIPT Partners

Being the leading Russian university in the sphere of science and technology, MIPT has the wide range of partners among world top-ranked universities, research centers and top-leading scientific institutes.

Global collaborations with highly recognized institutions develop and facilitate academic mobility, scientific projects and international research grants. MIPT is the active and irreplaceable member of main research and academic collaborations and mega-science experiments. Every year MIPT students and staff contribute much in solving global problems, innovating for the future.

Fundamental knowledge and integration in science let our young scientists and students to unleash their potential in different prestigious centers like Google, Vivo Participacoes S.A., CERN, DEZY, ETH, EPFL, Facebook.

**MIPT is the prestigious decent and attractive place in Russia for building the future professional career in the sphere of science and technology starting from different programs of academic mobility. Students have the wide range of opportunities:**

- Internships in modern and highly equipped laboratories on campus and abroad
- Double degree and joint networking programs with the leading partner universities
- Cotutelle programs for Doctoral degree students
INDUSTRIAL PARTNERS

SUCCESSFUL STARTUPS BY MIPT ALUMNI

ABBYY is a leading global developer of solutions in the field of intelligent information processing and linguistics. The company was founded in 1989 in Moscow. Today, ABBYY Group has offices in 13 countries around the world. ABBYY Group’s head offices are located in Russia (Moscow), D North America (Mtréal, California) and E Europe (Munich, Germany). ABBYY’s regional offices include Australia, Great Britain, Hungary, France, Spain, Ukraine, Taiwan, Japan, Hong Kong, and Cyprus. ABBYY has over 1,300 employees, most of them are programmers, engineers, and linguists.

Acronis is an international IT company that is a leading provider of backup, disaster recovery and endpoint data access solutions that are designed for individuals, small and medium-sized businesses, and large organizations. Currently, Acronis is trusted by more than 5 million consumers and more than 500,000 businesses in 160 countries, including 79 of the 100 most important brands from the Fortune 100 companies list.

Revolut is an international company that offers a service that helps you exchange one currency for another without bank fees, converting funds at the average exchange rate on the market. The company works with more than 15 million customers from 35 countries, who make 100 million transactions per month. Revolut is among the most expensive fintech startups in Europe last year, the value of Revolut was estimated at $5.5 billion.

An international retail supermarket chain and its own brand of products marketed as “healthy food products”. In May 2020, the first Dutch store opened in Amsterdam, becoming the first branch of the chain abroad. The network’s turnover in 2020 is 150,000,000 euros.

A Russian biomedical company specialising in the development of personalised methods for diagnosis and treatment of cancer, using original molecular, genetic methods and machine learning algorithms. Likewise, the startup attracted about 3 800 000 dollars of investment.

School of Radio Engineering and Computer Science

Phystech School of Aerospace Technology

Phystech School of Applied Mathematics and Computer Science

School of Electronics, Photonics and Molecular Physics

School of Biological and Medical Physics

Landau Phystech School of Physics and Research

An international company that uses modern technologies, genetic testing, and medicinal research, in order to manage health effectively. The company’s goal is to develop the concept of personalized medicine in Russia.
ADMISSION OPTIONS FOR INTERNATIONAL STUDENTS

STUDY FOR FREE
Russian Federation Government Scholarship (education-in-russia.com)
- Register on the website education-in-russia.com
- Contact us interadmission@phystech.edu
- Collect the required documents and submit your application
- Contact the representative of Rossotrudnichestvo or the Embassy of Russia in your country
- Pass a competitive selection in your country

Olympiads
- Phystech International en.phystech.international
- Open Doors od.gkbvalu.ru
- Technocup technocup.mailru
- «Phystech» olymp.mipt.ru

ON A FEE BASIS
Check the tuition fee eng.mipt.ru/programs
Contact us interadmission@phystech.edu

WHERE SHOULD I APPLY FOR THE SCHOLARSHIP?

Register on the website education-in-russia.com
Is there a representative office of Rossotrudnichestvo in your country?
Yes
Apply there
No
Contact the Embassy of the Russian Federation

MIPT CAMPUS
Space for creativity of students and staff
- Library open 24/7
- Security
- Health Care
- Mental health support for students
- Sports center, swimming pool, stadium
- Comfortable dorms and buildings

Take a virtual campus tour!

Campus area 96 hectares
Academic & laboratory buildings area 106K
Dormitories area 110K
Indoor sports facilities 6K
21 buildings
15 dormitories
3 buildings
6 minutes to train station
9 minutes to Moscow
7 minutes to airport
20 minutes to park
5 minutes to metro station in 2022
INTERNATIONAL OLYMPIADS

Educational Olympiads are the staple of MIPT. For many applicants who are still at school, participation in these shall increase their chances of being admitted to MIPT without entrance exams. As up-and-coming students continue to participate in Olympiads enhancing prestige and recognition of the university and ensuring greater opportunities for their own education and career. The most talented pupils and students are grouped together with like-minded individuals under the guidance of world leading advisors and professors from MIPT to attend international Olympiads around the world.

The continued support for such initiations makes MIPT a rallying point for participants in educational Olympiads and the heart of the Educational Olympic Movement in Russia.

The top 4 Olympiads

For admission to MIPT, where foreign citizens can participate in the scholarship distribution granting 100% tuition fee discount, organized by the Russian Government:

Phystech.International — An international Educational Olympiad for Grade 9-12 students designed to provide opportunity for schoolchildren from any part of the world to obtain admission to MIPT.

TechnoCup — An Educational Olympiad for Russian-speaking schoolchildren who are keen on programming.

OpenDoors — An online international Educational Olympiad for those who apply for Master’s and Doctoral (PhD) programs.

PhysTech — Traditional Educational Olympiad, which MIPT has been holding for Russian-speaking schoolchildren for more than 30 years.
INTERNATIONAL OLYMPIADS

Apart from the MIPT Olympiads for international students, pupils can annually participate in International Olympiads, which is very honorable and serve as the first step towards international scientific recognition.

Some of the most prestigious are the so-called “International Science Olympiads”. This group of international competitions are an annual competition for the most talented members of national teams, providing an opportunity for them to show their best.

Winners and prize winners of International Science Olympiads get an opportunity to choose and enter one the best universities in the world of their choice.

The number of foreign citizens among the MIPT students who became winners and prize-winners of international Educational Olympiads:

- **1 winner**

  - **EPhO**
    - European Physics Olympiad (EPhO)
  - **IMChO**
    - International Mendeleev Chemistry Olympiad (IMChO)

- **1 winner**

  - **APhO**
    - Asian Physics Olympiad (APhO)

- **2 winners**

  - **IOI**
    - International Informatics Olympiad (IOI)

- **17 winners**

  - **IZHO**
    - The International Zhautykov Olympiad (IZHO)
MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY

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