



NATIONAL RESEARCH
UNIVERSITY

Faculty of Mathematics, Higher School of Economics

FACULTY OF MATHEMATICS:
A SHORT INTRODUCTION TO MOSCOW MATHEMATICAL LIFE

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WHO WE ARE?

HISTORY AND CURRENT STRUCTURE

- The faculty established in **2007** in collaboration with **leading mathematical institutions:**
 - Steklov Mathematical Institute of the Russian Academy of Sciences
 - Kharkevich Institute for Information Transmission Problems
 - Lebedev Physical Institute of the Russian Academy of Sciences in Russia)
- **EDUCATION:** undergraduate, masters and PhD programs in mathematics and mathematical physics. Total number: **466** students (including PhD students).
- **SCIENCE:** **99** faculty members (including postdocs and tutors).
 - Several chairs associated with scientific institutions.
 - Three international laboratories.



HOW DO WE TEACH?

UNDERGRADUATE (BACHELOR) PROGRAMS:

- ✱ Mathematics (4 years, in Russian)
- ✱ Joint Bachelor program with the Centre of Teaching Excellence (4 years, in Russian)

MASTER'S PROGRAMS:

- ✱ Mathematics (2 years, in English)
- ✱ Mathematics and Mathematical Physics (2 years, in Russian)
- ✱ -Joint Master's program with the Centre of Teaching Excellence (2 years, in Russian)

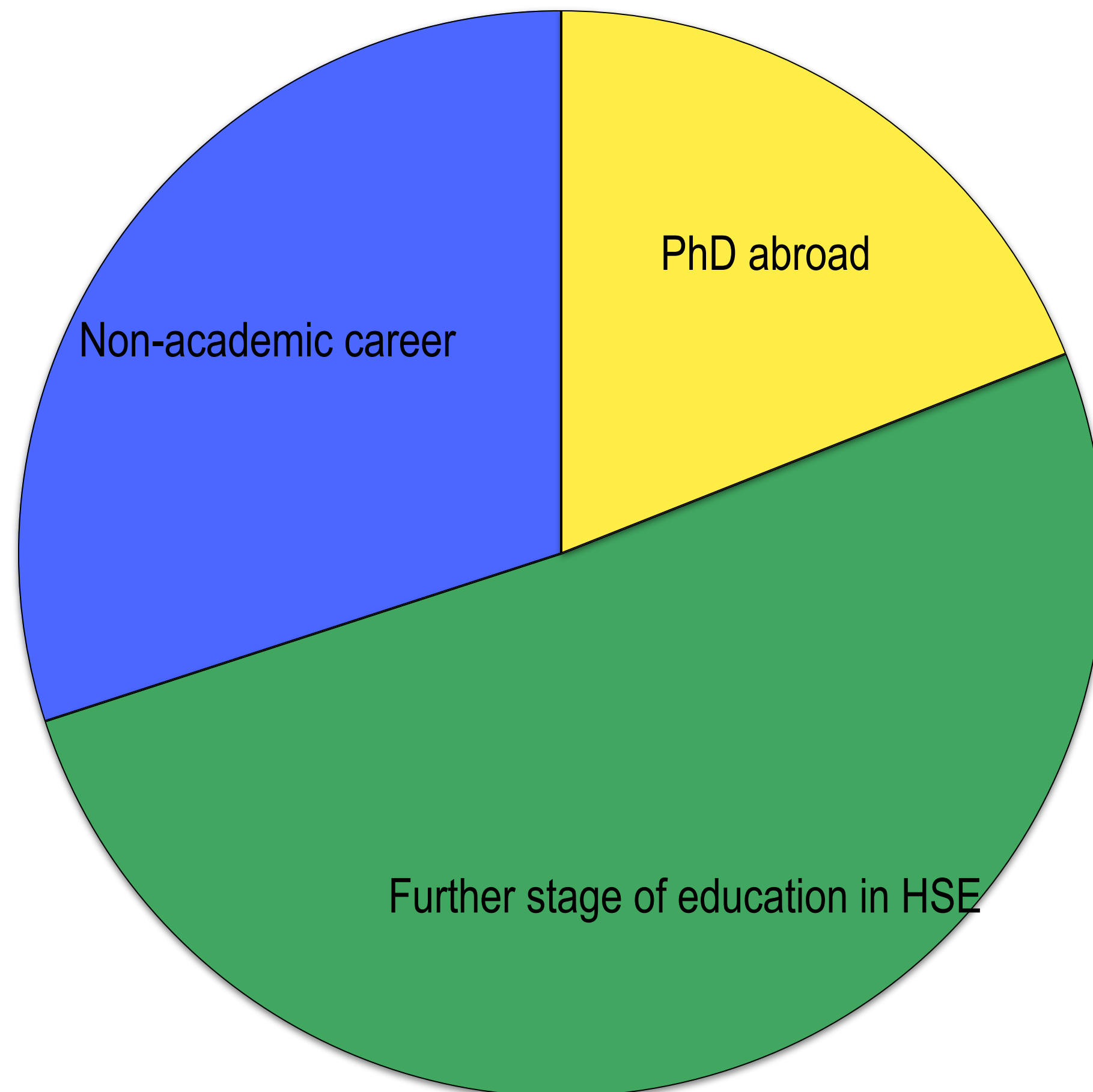
WHO ARE OUR STUDENTS

In the last 3 years: 45 awardees of Russian National Math Olympics (including 12 winners),
11 members of Russian national math olympic team



Our Alumni

Baccalaureate Alumni



- Around **20%** of our alumni of baccalaureate and masters program are selected for the most prestigious PhD programs across the world,

including:

- ★ Harvard University
- ★ Stanford University
- ★ MIT
- ★ Courant Institute of Mathematical Sciences (NY)
- ★ Columbia University
- ★ Ecole Polytechnique
- ★ Oxford University
- ★ University of Toronto
- ★ ETH Zurich
- ★ Leiden University
- ★ Scuola Normale Superiore
- ★ more than 20 other European and American universities of the very high level



WHAT ABOUT MATH? RESEARCH

- **Main areas of expertise:** algebraic and complex geometry, mathematical physics, representation theory, combinatorics, low-dimensional topology, dynamical systems;
- **14** members of the Faculty were invited speakers at **ICM**;
- more than **20** conferences and workshops per year;
- **3 International Laboratories** supervised by leading scientists:
 - International laboratory of algebraic geometry and its applications;
 - International laboratory of mathematical physics and representation theory;
 - International laboratory for mirror symmetry and automorphic forms.



WORLD AROUND US **INTERNATIONAL COOPERATION:**

The faculty runs a significant amount of **student/faculty exchange programs** with universities - partners in:

- ✱ Europe (including leading universities in France, Italy, The Netherlands, Luxembourg and other countries);
- ✱ North America (USA);
- ✱ Asia (Japan)

and also is included in a remarkable number of the multi-disciplinary student exchange agreements.

The network is permanently expanding.

The exchange is organized on a mutual basis (2-5 participants in each direction per academic year).

We also practice regularly joint PhD supervision with our colleagues abroad (co-tutelle).



DO MATH IN MOSCOW OTHER OPPORTUNITIES FOR INTERNATIONAL STUDENTS

Math in Moscow. The program established by the Independent University of Moscow and the Moscow Center for Continuous Mathematical Education in 2001 (since 2008 joint with the Faculty of Mathematics of HSE):

- over 350 students from 180 universities, including leading universities in North America and Europe;
- now over 100 of them have PhD;
- math courses are taught in English;
- Russian language and culture learning options;

REU (Summer University): 3-weeks program designed as a part of HSE Summer University.

- key auditory: undergraduate students majoring in mathematics and related area;
- main goal: advanced research projects under the supervision of outstanding mathematicians;
- 8-12 participants per year.



HOW DO WE PROGRESS: POSITIONS IN KEY RATINGS

- Shanghai Ranking 2018: **76-100**
- QS Ranking 2019: **101-150**

Impressive growth:

- 2017: **150-200**
- 2015: **400+**



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Thank you very much for your attention!

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