

# RELATIVISTIC AND PLASMA ASTROPHYSICS

## Moscow Institute of Physics and Technology (National Research University)

Degree or qualification is awarded: **PhD (Candidate of Science)**

Language of study: **English**

Mode of study:

Duration: **4 years**

Availability of free education: **yes**

Price: **375 000 RUB**

Programme webpage at the university website:

<https://eng.mipt.ru/programs/relativistic-and-plasma-astrophysics/>

Programme curator: **Denis Ustyuzhaninov**

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### Entry requirements:

- Master's degree / equivalent in a related field
- B2 level of English
- Good track record of publications related to the topic of the intended research
- Strong research proposal 1,500 - 3,500 words

### Research supervisor:

[Vasily Beskin](#)

PhD, DSc

### Supervisor's research interests:

Radio Pulsars (neutron star magnetosphere, radio emission mechanisms, propagation of waves in the pulsar magnetosphere). Active Galactic Nuclei (relativistic jets, black hole magnetosphere).

### Research highlights:

- Collaboration with Princeton University (Princeton, USA).
- Flatiron Institute (New York, USA).
- Grenoble observatory (Grenoble, France). Supervisor's specific requirements:
- General Relativity.
- Plasma Physics.
- MHD

### Main publications

- V.S. Beskin, A.V. Gurevich, Ya.N. Istomin. Physics of the Pulsar Magnetosphere. Cambridge University Press, Cambridge, 1993.
- V.S. Beskin MHD Flows in Compact Astrophysical Objects. Springer, Heidelberg, 2010.

## **Specializations within this programme**