The programme is aimed at preparing students for professional career in planetary science, space engineering, and remote sensing instrument development.

KEY ADVANTAGES:
The programme is aimed at preparing students for professional career in planetary science, space engineering, and remote sensing instrument development. Based on its long-term cooperative network in Russian and European space science and industry, MIPT provides focused training for joining research and engineering teams of planetary missions worldwide. Our faculty have unique experience of participation in missions to Mars, Venus, Jupiter and other Solar System bodies and develop hi-end instruments for future missions. Students graduating from the program will be prepared for admission to a PhD program in planetary science in the world’s leading universities.

TEACHING METHODS:
Theoretical part of the program includes fundamentals of orbital dynamics, planetary geology, physics and chemistry of planetary interiors and atmospheres, including extrasolar planets. Special attention is given to methods and instrumentation of planetary studies, including interplanetary missions and spaceborne astronomy. The program implies extended practice and internship in Russia’s leading research teams involved in planetary missions lead by Roskosmos, ESA, NASA, and other space agencies. Students enrolled in our Master program take part in mission planning, instrument design, operations, data treatment and interpretation.

STUDIED COURSES:
- Solar System dynamics;
- Extrasolar planetary systems;
- Planetary geology;
- Internal structure of planets;
- Dynamics of planetary atmospheres;
- Photochemistry and spectroscopy of planetary atmospheres;
- Planetary climate;
- Remote sensing of planetary atmospheres;
- Planetary astronomy;
- Inverse problems in planetary studies.

PROGRAMME PARTNERS:
- University of Reims (France);
- University of Cologne (Germany);
- University of Göttingen (Germany);
- EPFL (Switzerland);
- Complutense University of Madrid (Spain).

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