

## Competition notice

Project title: Occurrence of landslides under low gravity on comets and other cosmic bodies, especially from the asteroid belt, influence of the sublimation of ice.

Principal Investigator: Dr hab. Konrad Kossacki

Project description: The occurrence of landslides in weak gravity characteristic for comets, asteroids and other small celestial bodies was assumed to be unlikely, or even impossible. However, data from space missions Deep Impact and Star Dust Next, as well as Rosetta to comet 67P/Churyumov-Gerasimenko revealed existence of landslides on these small objects. The aim of the project is the investigation of the conditions for the origin and dynamics of landslide on slopes covered by dry non-volatile granular material. Performed are different types of research: numerical simulations dealing with the origin of instabilities, triggering of landslides, their motion and deposition, laboratory simulations of processes important for landslides in vacuum, especially investigating small-scale processes e.g. interaction of gas and solid particles.

### Requirement

- Master of science degree in physics, chemistry, or chemical technology.
- Research publications in peer reviewed international scientific journals (physics).
- Interest in planning and running of physical experiments, as well as confirmed experience in work in scientific laboratory, including work with vacuum and cryogenic liquids.
- Fluency in English, experience in programming (C, C++, or Fortran)

**Discipline:**Physics

**Admission limit:** 1

### Recruitment schedule

- registration in the Internet Registration of Candidates, referred to as "IRK", submitting an application to the IRK: 06.04.2021 – 20.04.2021
- qualification procedure: 26.04.2021 – 28.04.2021
- announcement of the ranking list: until 01.05.2021
- accepting documents from qualified candidates: 04.05.2021 – 25.05.2021 until 2 p.m.
- announcement of the list of accepted candidates: until 28.05.2021

### Recruitment fee

150 PLN

### Form of the selection procedure

Evaluation of the following elements shall be taken into account in the selection process:

- 1) the research project proposed by the candidate;
- 2) scientific activity of the candidate based on a CV or resumé, documented with scans of materials attached to the application for admission to the School;
- 3) interview with the candidate;

4) research publications related to the subject of the project. Language of the selection process, including the interview

#### **Language of the selection process, including the interview**

The interview shall be carried out in Polish or English – in accordance with the candidate's preferences presented in IRK. If the Polish language is selected, the interview may include parts in English.

#### **Required documents**

The candidate shall submit the application for admission to the School only in IRK. It shall include:

1. the application for admission to the Doctoral School;
2. scan of a diploma of completion of the long-cycle Master's degree programme or second-cycle programme or an equivalent diploma obtained under separate regulations or –in the case of candidates pursuing education within the European Higher Education Areas –a declaration that the diploma or certificate of obtaining a Master's degree shall be provided by 25 May 2021, in the case of holding a diploma equivalent to the diploma of completion of the long-cycle Master's degree programme or second-cycle programme, the candidate shall justify this equivalence;
3. a description of the initial research project proposal in English;
4. a resumé or curriculum vitae containing information about scientific activities, including scientific interests and scientific achievements during five calendar years preceding the submission of the application, subject to § 18 s. 5, in particular publications, research and organisational work in scientific associations, participation in scientific conferences, participation in research projects, awards, distinctions, research internships, completed training courses on research skills, science popularisation activities, activities in bodies representing scientific societies, professional career;
5. scans of materials confirming scientific activities referred to in the resumé or CV;
6. a document confirming the command of English at least at B2 level or declaration about the command of English to the extent enabling the education in the school;
7. a scan of the declaration of the supervisor candidate about their willingness to be the candidate's supervisor and the number of doctoral students, for whom they are appointed as the supervisor, in accordance with the template determined by the Rector; additionally, the candidate can enclose a scan of the opinion of the supervisor candidate and opinions of other academic staff on the candidate and their scientific activities or the proposed research project;
8. one photograph of the candidate's face, allowing their identification;
9. declaration whether the candidate is or was a doctoral student or participant of doctoral studies, and if yes – title of doctoral dissertation or the research project prepared by the candidate, as well as first name and surname of the academic tutor or the supervisor;
10. declaration on familiarising themselves with the content of the Resolution, as well as Article 40 and Article 41 of the Code of Administrative Procedure;
11. scans of transcripts of records of the first and second cycle programs, the long-cycle Master's degree program or equivalent documents (e.g. diploma supplement);
12. abstract of the master's thesis or draft master's thesis in English (up to 3,000 characters with spaces);
13. other documents in form of scans: recommendation letters from researchers with whom candidate collaborated.

## **Evaluation criteria**

- scientific achievements including research publications (50% of the final note)

4 pkt outstanding;

3 pkt very good;

2 pkt good;

1 pkt poor;

0 pkt no achievements.

- scientific awards and grants, scientific experience in external institutions, courses, research projects (20% of the final note)

4 pkt outstanding;

3 pkt very good;

2 pkt good;

1 pkt poor;

0 pkt no achievements.

- competences appropriate for the project (30% of the final note)

3 pkt very good;

2 pkt good;

1 pkt poor;

0 pkt lack of competences.

## **Education program**

The education lasts 4 years. It includes obligatory classes (no more than 300 hours in total during the whole period of education) and the implementation of an individual research program, carried out under the supervision of a supervisor.

## **Scholarships**

During the four years of study, the PhD student receives a scholarship in the amount of 3359.90 PLN gross for the first two years of studies (before the mid-term evaluation) and 3653.70 PLN gross in the next two years after the mid-term evaluation.