JOB OFFERS

The Royal Observatory of Belgium is looking for a scientist for its activities in the frame of the PRODEX contract GRASS (GRAvimeter for exploration of Small Solar system bodies)

Thanks to funding from BELSPO (PRODEX) for the period 2020-2024, a position for a scientist will be available, starting from October 2021, to work on the GRASS (GRAvimeter for exploration of Small Solar system bodies). GRASS will measure the local gravity vector and its variation with time and location on the surface of small solar system bodies. Therewith, it will provide information about subsurface and interior structure, which will help to better understand the origin and evolution of the target small body of the solar system. The first target is Dimorphos, the smaller asteroid of the binary asteroid system Didymos. GRASS will be onboard Juventas, one of the two nanosat within the Hera mission.

ESA's Hera mission for planetary defense will indeed explore the binary Didymos asteroids. However, it will not go there alone: it will also serve as mothership for Europe's first two cubesats to travel into deep space, one of them being Juventas. The GRASS instrument will be part Juventas' payload and will perform surface gravity measurements on Dimorphos after Juventas has soft-landed on the moonlet. The gravimeter is currently under development and uses novel methods to increase instrument sensitivity while decreasing mass and volume, as required in cubesats. The candidate will work essentially on the project and instrument management and mature the instrument (increase TRL of the instrument), which will necessitate understanding and validating the instrument performance and data analysis methods. This involves mechanical, thermal, electrostatic and electro-mechanic modeling of the sensing elements. He/She will work also on the data analysis methods as well as on the controlled environment laboratory test results. Planning and execution of environmental testing according to ESA standards for space instrumentation will also be part of her/his role.

The contract for a doctor of science with at least 6 years of experience will be at least until the launch of Hera with Juventas in 2024. We are looking for an enthusiastic and motivated scientist.

We offer a competitive salary following the salary scales SW2 for federal government scientific staff, flexible working conditions and additional benefits.

WE ARE LOOKING FOR

The candidate must have a doctorate in Science and possess the following characteristics:

- Scientific curiosity
- Strong interest in the field of cubesat and their payloads,
- Creative and pragmatic problem-solving approach,
- Extensive knowledge in in the development of planetary instrumentation,
- Extensive knowledge in space data analysis,
- Extensive knowledge in managing projects,
- Extensive knowledge on space gravimeters and of its performances,
- Extensive knowledge of space-radiation equivalent testing of instruments,
- Capability to work in English.

HOW TO APPLY

Send a full CV (including grades), a motivation letter, and two reference names by July 2d, 2021 to v.dehant@oma.be, Head of Operational Direction 'Reference Systems and Planetology' at ROB. The beginning of employment will be on October 1st, 2021.