



JOB OFFER

BIRA-IASB is looking for:

PhD student (M/F/X)

Deadline for application : April 30, 2026

Start date: August 17, 2026

Division, context:

The Royal Belgian Institute for Space Aeronomy (BIRA-IASB) is recruiting within the D43 Planetary Atmospheres group of the Solar Radiation in Atmospheres division. The group develops and operates space instruments dedicated to the characterization of planetary and exoplanetary atmospheres and holds major responsibilities for the NOMAD instrument on the ExoMars Trace Gas Orbiter and VenSpec-H on the EnVision mission, while also contributing to the Jupiter Icy Moons Explorer (JUICE) and Ariel missions.

The group works across the full instrument lifecycle, from scientific requirements and radiative transfer modelling to calibration and data processing. It also analyses observational data and integrates them into atmospheric numerical models. In particular, the team develops and operates GEM-Mars, a three-dimensional global climate model used to study the dynamics, chemistry, dust and clouds of the Martian atmosphere and to support the interpretation of observations from missions such as ExoMars TGO/NOMAD.

To further strengthen our activities in this field, we are looking for a PhD student.

Responsibilities

The PhD student will contribute to the scientific activities of the D43 Planetary Atmospheres group by participating in the development and application of numerical tools for the analysis and interpretation of planetary atmosphere observations. In particular, the research will involve the use and development of GEM-Mars, a state-of-the-art three-dimensional global climate model of the Martian atmosphere, used to simulate atmospheric dynamics, chemistry, dust and cloud processes from the surface to the upper atmosphere.

The model will be used to support the interpretation of observations acquired by space missions and to investigate key processes shaping the Martian atmosphere. The work will take place in an international research environment, and the student will disseminate results through scientific publications and conference presentations.

More about BIRA-IASB

The Royal Belgian Institute for Space Aeronomy (BIRA-IASB) is a Belgian Federal Scientific Institute.

Since its founding in 1964, BIRA-IASB has been conducting research and providing public services in space aeronomy, i.e. the physics and chemistry of Earth's atmosphere and other planets, and outer space.

Our scientists use instruments on the ground, in the air, on board balloons or in space and computer models.

www.aeronomie.be

Required competences

The candidate holds a Master's degree in planetary science, physics, atmospheric science, astronomy, or a related field.

Technical skills

- Scientific programming: experience with Python (experience with Fortran is an asset).
- Scientific computing: familiarity with Linux/Unix environments and version control systems (Git/GitLab).
- Physics background: knowledge of planetary atmospheres, atmospheric physics, or climate modelling.
- Data analysis: ability to analyse and visualise scientific datasets.
- Problem solving: creative and pragmatic approach to scientific problem solving.

Generic skills

- Scientific curiosity: interest in learning new techniques and models (using scientific literature).
- Scientific rigor: ability to develop reliable methods and critically validate results.
- Team-oriented: strong capacity and willingness to collaborate.
- International collaboration: ability to work effectively within international research teams and projects, in multicultural environments, where English is the working language, demonstrating strong communication skills and effective scientific collaboration.

Asset

- Numerical modelling: interest in atmospheric or climate modelling
- Scientific software development: experience with numerical methods or large scientific codes
- Knowledge of French and/or Dutch is an asset.

We offer

- The position is on a contractual basis and fixed for 4 years (initially for 2 years, 2 last years after mid-term review). The selected candidate will be recruited under a fellowship status. The position is remunerated with a salary, not a scholarship (grant). While the candidate does not have all the rights of a standard employee, the fellowship allows progression (e.g., from SW10 to SW11 after 2 years).
- The starting date of 17 August 2026 is negotiable.
- BIRA-IASB takes care of organizing the contacts with a promoter at the university.
- Dynamic working atmosphere with national and international contacts.
- Pleasant work environment in a scientific institution located in a green setting in Uccle, Brussels. Easy access via public transportation.
- Flexible schedule within the 38 hours week with the possibility to do teleworking
- Attractive annual leave policy (minimum 26 days by year)
- Full refund of commuting expenses when using public transportation, compensation when using the bicycle .
- Possibility of training (to be followed during working hours)
- On-site childcare during school holidays in July and August.



Interested?

Send your CV and motivation letter and if possible two or three references (all in PDF-format) to:

severine.robert@aeronomie.be with hr-select@aeronomie.be in copy

with the following reference: "D43_PhD"

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