



The Royal Observatory of Belgium seeks a collaborator (F/M/X) for the Planetology Laboratory

Our reference	Activity group	Recruitment category(ies)	Applications open until
	1. Scientific research and experimental development	SW1	26/05/2026

Job description

Purpose of the position

The Royal Observatory of Belgium invites applications for a **Research Scientist or Research Engineer** to work on the **MAESTRO** (Mass-distribution Assessment from Exploitation of Small-bodies' Tides, Rotation and Orbits) project. This position is open to candidates holding either a **Master's degree or a PhD** in a relevant field.

MAESTRO is a two-year research project dedicated to advancing our understanding of the internal structure of small Solar System bodies such as asteroids, comets, and irregular moons. This knowledge is key to understand the formation and evolution of the Solar System, and essential for planetary defense and future exploitation of in-situ resources.

The successful candidate will contribute to the development of advanced numerical and geodetic methods to infer the internal mass distribution from spacecraft observations about gravity fields, rotational dynamics, tidal responses, and complementary measurements (e.g., radar, surface constraints, or gravimetric data).

The work combines scientific analysis, numerical modelling, and software development within the GILA inversion framework (see [Caldiero and Le Maistre, 2024](#)).

A significant part of the project involves the scientific exploitation of data from past missions (e.g., comet 67P, Bennu, Ryugu, Eros) and the preparation for the upcoming international missions Hera (to the Didymos/Dimorphos system) and Martian Moons eXploration (MMX) (to Phobos).

Outcome areas

The function holder is expected to

- Work at the forefront of planetary geodesy and space mission science
- Contribute directly to the scientific return of current and future space missions where ROB is involved

- Develop advanced skills in inverse problems, numerical modeling, and scientific computing
 - Develop and implement numerical methods for gravity and geodetic inversion
- Extend and maintain the GILA software framework (Python/C++ environment)
 - Implement and test new optimization, parameterization, and modeling approaches
 - Integrate complementary measurement types (e.g., radar, gravimetry, surface constraints)
- Perform simulations and sensitivity analyses for future missions
- Analyze spacecraft data from past and upcoming missions
- Collaborate with an international network of researchers and mission teams
- Contribute to scientific publications and conference presentations

Employer

There is one position open in the Planetary Science Laboratory at the Royal Observatory of Belgium (address: Ringlaan 3, B1180 Brussels).

The activity group for the position is: I. Scientific research and experimental development

Planetology Laboratory: The selected candidate will work within the Planetology Laboratory at ORB, within the larger Operational Directorate OD1. The selected candidate will work closely with its planetary science colleagues.

Royal Observatory of Belgium (ROB): The ROB (<http://www.observatory.be>) is a Belgian Federal institute located in the green outskirts of Brussels (Uccle). The Planetology Laboratory is included in the operational directorate 'Reference Systems and Planetary Sciences'.

Skills

Behavioural skills

- **Exchange, communicate and cooperate:** the successful functioning of the team is based on effective communication, cooperation and empathy. You embrace this strategy and adopt a constructive attitude of working relationships.
- **Show initiative, achieve results and grow:** You implement solutions to drive continuous improvement. You are committed to development and keep competencies up to date. You take responsibility, show initiative and complete tasks autonomously.
- You are able to work well both independently and as a team member.

Technical skills

- **You have good knowledge of programming.**
- Fluent management of Python and C/C++.
- Knowledge of MATLAB, Bash, and Fortran.
- You have a good knowledge of numerical methods, inverse problems, scientific computing, or (space) data analysis.

Assets

- Experience with gravity field modeling, orbit determination, or radio science.
- Experience with finite-element methods, mesh generation, or optimization techniques.
- Knowledge of Bayesian, stochastic, or machine-learning approaches.
- Experience with spacecraft or planetary mission data.
- Knowledge of French.
- You have a good command of written and spoken English.

Conditions for consideration

Your profile

- You hold a master or PhD degree in planetary science, geophysics, aerospace engineering, applied mathematics, physics, or in an equivalent field.

Degree must have been conferred by the closing date for applications

/! Applicants who have a degree or certificate from a foreign institution who apply for a scientific position for which the tasks are not related to the permanent missions of the institution are exempt from the need for an academic equivalence evaluation.

Do you wish to apply but your diploma is not in Dutch or French?

We invite you to contact the person listed in the 'Contacts' section (selection procedure) to find out if you need to take a language test: Article 7 - Level 1/A.

If it is deemed necessary, you can register for language exams by clicking on the link: www.travaillerpour.be/fr/tests-et-certificats/linguistique/inscription.

Job offer

Contract and category

Applicant recruited as category SW1

You will be hired under a two-year fixed-term contract on the SW11 salary scale (SW10 if you do not have at least two years of recognised scientific experience). The contract might be renewed in case of mutual satisfaction and budget availability.

Benefits

We offer you an interesting job with a social impact, which comes with a number of benefits:

- A good work-life balance
 - flexible working hours of 38 per week
 - option of taking compensatory leave for overtime worked
 - offices closed between Christmas and New Year's Day
 - 26 days of paid leave (for a year of full time employment)

- easy commuting using public transport
- numerous opportunities for self-growth
 - numerous opportunities for training and apprenticeship (during working hours)
- Financial benefits
 - possibility of receiving a bilingualism bonus
 - hospitalisation insurance at reduced rate
 - supplementary pension (occupational pension)
 - free use of public transport for commuting between your home and the place of work
 - meal vouchers
 - possibility of receiving a bicycle allowance for travel via bicycle
 - Benefits and offers via the Benefits@Work card
 - a range of fringe benefits (subject to conditions)

Conditions for employment

If you are selected through this procedure, you must – in order to be hired – fulfil the following requirements on the date of selection:

- Enjoy full civil and political rights
- Have fulfilled military service requirements
- Behave in a manner fitting of the requirements of the position
- Hold the necessary degree(s)
- Have the necessary skills and fulfil the requirements listed in the job profile

Procedure

Step 1 – Verification of the participation conditions

You will be considered in the selection procedure if you fulfil all of the required conditions. Verification will be carried out by the selection board on the basis of the application documents you have submitted. The board will decide whether the qualifications, awards and experiences you have submitted meet the requirements of the position. If they do, you will be invited to continue to the next step of the procedure.

Step 2 – Interview

The interview will take place online or at the **Royal Observatory of Belgium**. Further details will be sent to you by one of our employees via email.

The selection board assesses whether the qualifications, awards and experience you included in your application documents meet the requirements for the position.

If you fail to attend

If you fail to attend the additional evaluation and/or interview, you will be automatically excluded from the remainder of the selection procedure unless you provide evidence, within three days, that your absence was justified for one of the following reasons:

- illness

- emergency relating to a member of your household (= anyone who lives with the applicant) or family (= spouse or legal cohabitant of the applicant, parents or grandparents of the applicant)
- mandatory presence at your workplace
- disruption or delay to public transport of at least 30 minutes
- force majeure

If applicable, you may request, within 10 days of the interview date, to be interviewed by the board. A new date will then be offered to you.

Notification

If you are not selected in a step, the procedure will end, and you will not be invited to any subsequent evaluations in the same selection procedure.

For each step, you will receive a notification of the result.

Equal opportunities and reasonable accommodations

The Federal Administration has an active diversity policy.

Do you live with a disability, with learning difficulties or an illness? If so, you can request accommodations for the selection procedure. Please contact the individual listed under the “Contact persons” section.

Facilities provided for people who are pregnant or breastfeeding

Are you pregnant or breastfeeding your child? If so, you can request access to the relevant facilities. Please contact the individual listed under the “Contact persons” section.

Final result

What happens if you are selected?

Following the selection procedure, an unranked group of applicants will be placed on a short-list. These applicants will be those deemed most suitable to fill the open position in accordance with the conditions for consideration. The Director General of the institute will hire one person from this list.

How long will this list remain valid?

A shortlist of selected applicants will be created and will remain valid for one year.

Apply

Do you want to apply? Send your application documents by email to Dr Sébastien Le Maistre (sebastien.lemaitre@oma.be), Prof. dr. Tim Van Hoolst (tim.vanhoolst@oma.be) and dir-rob@oma.be including the selection reference in the subject line.

Your application documents must include:

- Curriculum Vitae

- Motivation letter describing research interests and relevant experience
- List of publications (if applicable)
- Support letter from at least one referee is encouraged (but not mandatory).

The closing date for sending your application is 26/05/2026 (inclusive).

Applications that do not follow the indicated procedure will not be considered.

Contact persons

Concerning the position:

For more information about the position, please contact:

Dr Sébastien Le Maistre, Coordinator of the MAESTRO projet, sebastien.lemaistre@oma.be

Concerning the selection procedure:

For more information about the selection procedure, please contact:

Dr Ronald Van der Linden, Director General, 02 373 0211, dir-rob@oma.be

If you want to request a reasonable accommodation for the selection procedure or access to facilities for people who are pregnant or breastfeeding, please also contact this person.