



JOB OFFER

BIRA-IASB is looking for:

PhD student (M/F/X)

Deadline for application : September 30, 2025
Start date: 1st December, 2025

Division, context:

The Space Physics Division of the Royal Belgian Institute for Space Aeronomy (BIRA-IASB) has been active in meteor research for about 15 years. We have developed the BRAMS (Belgian Radio Meteor Stations) network for radio forward scatter observations of meteors with a dedicated transmitter and more than 50 receiving stations in Belgium and neighboring countries. The network is constantly growing and improving. At the same time, the team is actively participating to optical camera networks (GMN, CAMS-Benelux, FRIPON) to study meteors and fireballs. To further strengthen our activities in this field, we are looking for a PhD student.

Responsibilities

The general aim is to use the huge amount of data generated by the BRAMS network in the last 15 years to improve our knowledge of meteors. More specifically, the candidate will study the deceleration of meteoroids, determine their orbital parameters from the reconstructed trajectory and speed in the atmosphere, contribute to compute the activity of meteor showers and their mass index, and contribute to estimate meteor fluxes.

The candidate will use existing algorithms (written in Python), improve and validate them, and develop new ones to help analyze the BRAMS data.

He/she will work in collaboration with the other BRAMS team members and with external national or international partners whenever required.

He/she may occasionally help supervise students during their internship or master thesis work.

He/she will present the results during national and/or international conferences.

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 in Sciences or Engineering (with a preference to physics-oriented ones)

Technical skills

- Creative and pragmatic problem-solving approach.
- Physics: knowledge of meteor science, comets, plasma physics, or radio instrumentation (asset).
- IT: programming (Python, Matlab), OS (Linux, Unix, Windows), and collaborative tools (Git, GitLab).
- Proficiency in written and spoken English.
- Knowledge of French and/or Dutch (asset).

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.
- Ability to interact with partners in a multilingual, international environment.

Asset

- Experience with meteors, space plasma physics, and/or radio waves.

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 1 November 2025 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:

herve.lamy@aeronomie.be with hr-select@aeronomie.be in copy

with the following reference: "D12_Meteors"

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