



JOB OFFER

BIRA-IASB is looking for:

PhD student (M/F)

Start date: September, 2021

Division, context:

The Space Physics Division of the Royal Belgian Institute for Space Aeronomy (BIRA-IASB) has been active in meteor research for more than 10 years. We have developed the BRAMS (Belgian Radio Meteor Stations) network for radio forward scatter observations of meteors with a dedicated transmitter and about 35 receiving stations in Belgium and neighboring countries. The network is constantly growing and improving. Soon a meteor (backscatter) radar will become available as well. At the same time, the team has been participating to optical camera networks (CAMS-Benelux, FRIPON, All-Sky7) to study meteors and fireballs. To further strengthen our activities in this field, we are looking for a PhD student.

Responsibilities

The aim is to use the huge amount of data generated by the BRAMS network in the last 10 years to improve our knowledge of meteors (trajectories, speeds, fluxes, meteor showers vs sporadic background, ionization, fireballs,...) and their impact on the atmosphere (mesospheric temperature and wind speed determination, mass deposition, noctilucent clouds,...). The candidate will use existing algorithms, improve and validate them, and develop new ones to help analyze the BRAMS and the meteor radar data. He/she will also work on comparisons between radio and optical observations in order to better understand the plasma physics of the meteor trail and to constrain important parameters such as the ionization or luminosity efficiencies. Some of this work will be done in collaboration with scientists developing ablation models of meteors (such as e.g. the Von Karman Institute).

Required competences

- The ideal candidate holds a Master in Science or Engineering
- Experience with meteors and/or space plasma physics and/or radio waves is an advantage.

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

Technical skills

- Creative and pragmatic problem-solving approach;
- Knowledge about meteor science, their link to comets, plasma physics, or radio instrumentation is a plus;
- Experience in programming (Matlab, Python, ...) is a plus.

Generic skills

- Good in written and spoken English;
- Knowledge of French and/or Dutch is a plus;
- Scientific curiosity;
- Quick learner;
- Team-oriented;
- Capacity to interact with partners in a multi-lingual environment.

We offer

- The position is on a contractual basis (initially for 2 years, 2 last years after mid-term review). The starting date of 1 September 2021 is negotiable.
- Salary is according to the federal regulations for scientific contractual personnel on scale SW1.
- 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.
- Flexible schedule within the 38 hours week
- Attractive annual leave policy (minimum 26 days by year)
- Full refund of commuting expenses when using public transportation, compensation when using the bicycle .
- Possibility to acquire a bonus for bilinguism (Dutch/French)
- Possibility of training (to be followed during working hours)
- Possibility to work from home
- Access to special advantages arranged for the employees of the federal scientific institutions : museum card, hospitalization insurance, reductions via the Fed+ card, etc.
- Company restaurant with reasonably priced hot meals and salad bar.
- 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:

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

with the following reference: "D12_Meteors"

Deadline for application : May 1, 2021