



# VACANCY

## BIRA-IASB is hiring a **Post-Doc Scientist (M/F/X)**

**Deadline for application :** This position will remain open until filled

### Job title description

BIRA-IASB is opening a post-doc scientific position to join the satellite UV-visible observation team. We are looking for an outstanding, highly motivated scientist with a PhD preferably in Atmospheric Sciences and/or Remote Sensing or Applied Sciences.

### Tasks, division, context

The Royal Belgian Institute for Space Aeronomy (BIRA) is a federal research organization. Since its creation in 1964, its main tasks are research and public service in the field of space aeronomy, which includes the study of the physics and chemistry of the atmospheres of the Earth and other planets, and of outer space. BIRA has a strong expertise in designing and operating instruments to monitor atmospheres and space environment. It has also developed a strong know-how in the exploitation of measurements and their geophysical interpretation using, among others, theoretical and numerical models.

The position is open in the UV-visible observation team. The UV-Vis group, a research team of 18 persons, has developed for about 30 years an internationally recognized expertise in the field of ground-based, airborne and satellite atmospheric composition measurements. This includes instrument design, algorithm development, data processing and geophysical interpretation in support of air quality and climate change monitoring. The study implies cooperation with various national and international partners.

### Research topic

Satellite UV-visible instruments monitor key atmospheric trace gases relevant for air quality, the ozone layer, and climate. The new generation of satellite instruments, such as the Sentinel-5 Precursor/TROPOMI mission, have improved spatial resolution of the order of a few kilometers allowing the study of emissions and atmospheric phenomena with unprecedented detail. In the next years, the TROPOMI data record will be extended with the Sentinel-5 mission to be operated as part of the EPS-SG system until the late thirties. In addition, the constellation of geostationary instruments (Sentinel-4, GEMS and TEMPO) will offer invaluable information on the diurnal evolution of tropospheric pollutants and underlying processes over three continents (Europe, South-East Asia, USA). The job will focus on developing new and sensitive retrieval algorithms applicable to space observations from current, past, and future sensors. More particularly, the research will aim at retrieving accurate information on the vertical columns of glyoxal

### More about BIRA-IASB

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

Since its foundation in 1964, BIRA carries out research and provides public service in the field of space aeronomy, i.e. the physics and chemistry of the Earth's atmosphere and of other planets, and of cosmic space.

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

[www.aeronomie.be](http://www.aeronomie.be)

(CHOCHO) in the atmosphere and to study the short- to long-term evolution of this pollutant in relation to atmospheric variability as well as fire and human activity.

The candidate will work in an international environment, implying the dissemination of results in scientific publications and presentations at international conferences and workshops.

## Required competences

- Doctoral degree in a relevant field for this project (e.g., Atmospheric Science, Remote sensing, Applied Sciences). \*
- Interest in remote sensing of the atmospheric composition and in atmospheric physics and chemistry.
- Good knowledge of Linux environment and data management, scientific programming languages.
- A critical and organized sense for data analysis
- Strong communication skills, including a good proficiency in English (oral and written)
- Excellent publication record.
- Ability to work autonomously and in a team
- Good level of flexibility, ready to travel occasionally

*(\*) In the situation where the Master or PhD degree was awarded by a body outside the Benelux, the candidate will have to apply for an equivalence of the level of studies preceding the PhD in order to prove that this level corresponds to a generic Belgian Master degree. This should only be done after the candidate has been selected for the job and before he/she takes up the job. To obtain the equivalence, you can choose to apply for it at the French or Dutch speaking community of Belgium. You can find more information on this at <https://www.naricvlaanderen.be/nl/erkenningen> or <https://equisup.cfwb.be/>.*

## Technical skills

- Experience with numerical analysis and remote sensing
- Solid coding skills (e.g., Python, Matlab, C++)
- Good knowledge of scientific data formats (netCDF, geoTiff, ...)
- Experience with Office applications

## We offer

- The position is on a one-year contractual basis, with possibility of extension. Salary is according to the federal regulations for scientific contractual personnel. All relevant work experience (public + private sector) will be considered when determining seniority.
- Possibility to acquire a bonus for bilinguism (Dutch/French)
- Pleasant working atmosphere in a scientific environment located in a green setting in Uccle, Brussels with strong international orientation.
- Attractive annual leave policy (minimum 26 days per year)
- Options to balance professional and personal life (flexible schedule) within the 38 hours week
- Full refund of commuting expenses when using public transportation, compensation when using the bicycle
- 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.
- On-site childcare during school holidays in July and August.



## Interested ?

Please send your motivation letter and CV to [hr-ae@aeronomie.be](mailto:hr-ae@aeronomie.be)

and in cc to [Nicolas.Theys@aeronomie.be](mailto:Nicolas.Theys@aeronomie.be) and [Michel.vanroozendael@aeronomie.be](mailto:Michel.vanroozendael@aeronomie.be)

with reference: " D31\_ postdoc\_SW ".