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The Royal Belgian Institute for Space Aeronomy (BIRA-IASB) is a scientific institution of the Belgian Federal Space Pole located in Uccle (Brussels). Its principal mission is the development of scientific and technological expertise in the field of aeronomy. This interdisciplinary science studies the physics and chemistry of planetary atmospheres by addressing issues of societal interest such as atmospheric composition changes and their link with climate. For more information on the institute and its activities, please visit our website at www.aeronomie.be.

In the framework of a project studying the variability and atmosphere-biosphere exchanges of oxygenated organic compounds in the tropical atmosphere,

we are looking for

an aspiring scientist holding a recent Master degree in Sciences or in Applied Sciences, to work on a Ph.D. thesis for a total duration of four years, starting in February (or March) 2017.

The project aims at providing an improved assessment of the budget and role of oxygenated volatile compounds (OVOCs) in the tropical atmosphere, using an integrated approach combining in situ measurements, satellite retrievals and modelling. One of the specific goals is to generate a dataset of atmospheric measurements of OVOCs (methanol, acetaldehyde and acetone) and related compounds by mass spectrometry at the high-altitude site of Maïdo (2155 m a.s.l.) located at the Reunion Island, in the Indian Ocean. These measurements will be complemented by campaign measurements in the area between the Maïdo summit and the coastline. The measurements will be used to identify and quantify OVOC sources and sinks in the area, with the help of both local and global chemistry-transport models.

The successful candidate will be in charge of the analysis of local measurements in terms of source apportionment and will use modelling techniques to identify the origin of air masses. The modelling activities will be based on different approaches using either a multivariate receptor model, a Lagrangian particle dispersion model, and a mesoscale model. He/she will possess scientific curiosity, precision, initiative and team spirit. She/he will have an advanced level in oral and written English, skills in data handling and analysis, modelling and programming (e.g. Python, Linux, Fortran, MatLab, NetCDF, LaTeX). He/she will present the research results through scientific publications, and communications in workshops and international congresses.

The Ph.D. will be carried out as a **joint (co-tutelle) thesis** between the University of La Réunion and a Belgian University. The successful candidate will work during the first 18 months of his/her contract at the University of La Réunion, under the supervision of Dr. Pierre Tulet, CNRS Research Director. During the remaining 30 months of the thesis duration, the candidate will work at BIRA-IASB in Brussels under the supervision of Prof. Crist Amelynck. Since the candidate will work in collaboration with a French University, knowledge of French is an asset.

We offer:

- Full-time 4-year contract
- Possibility to acquire a bonus for bilinguism (Dutch/French)
- Salary according to the federal regulations for the scientific career.
- Dynamic working environment with international contacts
- Refund of commuting expenses when using public transportation or bicycle
- Flexible schedule and possibility to work occasionally from home
- Access to special advantages arranged for the employees of the federal scientific institutions (e.g., collective hospital insurance, possibility to follow trainings, free childcare in July/August)
- Working in a green and pleasant environment

After evaluation of the application letters, the selected candidates will be invited for an interview, or a teleconference if need be.

If you are interested in this position, please send your application (CV and cover letter) including the reference “**D23-TROPO**” to the Human Resources Department via email (hr-ae@aeronomie.be) with a copy to jenny@aeronomie.be before **15/01/2017**. More information about this vacancy can be obtained from Jenny Stavrakou, +32 (0) 2 3736766 or by e-mail (jenny@aeronomie.be).