

## **Job offer**

### **Engineer position (12 months): Atmospheric data analysis and interpretation**

#### **General information**

Place of work: AUBIERE (63), France

Type of contract: Non-permanent, full time (100%)

Duration of contract: 12 months

Starting date: 1st December 2018 at the latest

Salary will depend on level of experience and will range from 2400€ to 2600€.

Level of preferred experience: PhD in atmospheric sciences

#### **Required research skills include:**

- A PhD in atmospheric sciences
- Good knowledge and use of Matlab programming tools
- Knowledge of aerosol instrumentation including: aerosol mass spectrometry, size distributions measurement such as: ACSM, SMPS, GRIMM, MAAP, Nephelometer, Photometer, LIDAR
- Familiar with and able to use Mie Code
- Good written and oral communication skills (french and english) are appreciated

#### **Details**

This engineer position is principally to develop numerical tools and algorithms for data processing software. The principal objectives are to evaluate and compare aerosol data products obtained from the CALIOP satellite with those of in-situ and remote sensing data measurements obtained from the station Cezeaux Opme Puy de Dome (CO-PDD).

#### **Activities**

- Learn to use and implement existing MATLAB algorithms for data processing of in-situ aerosol measurements (Aerosol mass spectrometry (ACSM), Optical particle counters (GRIMM), Size distribution measurements (SMPS), Black carbon measurements (MAAP), Aerosol optical properties (Nephelometer), as well as remote sensing measurements (photometer and lidar).
- Adapt and improve algorithms from the French community to obtain the optical properties of aerosol particles measured using the multi-wavelength LIDAR COPLid.
- Develop and document evaluation algorithms to evaluate optical properties obtained by CALIOP (aerosol optical thickness, color ratio) from in-situ measurements and remote sensing measurement acquired at the COPDD site.
- Apply these algorithms and evaluation tools to long time series of in-situ and satellite measurements.
- Document and publish research work in peer reviewed scientific journals. Present the results of this work at the annual EECLAT workshop.

## **Work context**

This work, supported by CNES will take place within the framework of the national project EECLAT (Expecting Earth-CARE, Learning from A-Train: <http://eeclat.ipsl.jussieu.fr/>). In particular, these activities will be based on a strong collaboration between the LATMOS laboratory in Paris (Laboratoire Atmosphères, Milieux, Observations Spatiales à Paris) and that of the LaMP (Laboratoire de Météorologie Physique). The position will be located at LaMP, which is a university/CNRS research unit located in Clermont-Ferrand region of France (Aubiere, France). The LaMP is internationally recognized in the area of climate relevant measurements as well as in the field of cloud microphysics. The institute has currently 55 permanent members. Within this laboratory the new employee will be part of the cloud microphysics research group, and will work closely alongside researchers in the experimental atmospheric chemistry and physics group. The new recruit will travel to Paris to work along side researchers at LATMOS.

## **Complementary information**

Questions related to the position should be addressed to Nadège Montoux: [nadege.montoux@uca.fr](mailto:nadege.montoux@uca.fr)

Applications should be addressed to Nadège Montoux before the 30 September 2018 and should include:

- A complete CV including a list of scientific publications,
- A letter of motivation including the main lines of the research project

Applications will be examined by a committee with a first phase of selection and then an oral examination for pre-selected candidates. The date of the oral examination will be during the latter part of October. Starting date is 1st December 2018at the latest.