

### **Introduction:**

This document gives a short description of the project and how to get the raw data generated during the project.

### **Project Description:**

Fiducial Reference Measurements for Ground-based Infrared Greenhouse Gas (GHG) Observations (FRM4GHG) is a European Space Agency (ESA) funded project (under contract no. ESA-IPL-POE-LG-cl-LE-2015-1129) focusing on the intercomparison of remote sensing instruments and harmonization of retrievals and products from collocated new and established observations from ground-based infrared instrumentation to get Fiducial Reference Measurements (FRMs) for greenhouse gases.

### **Campaign location and time period:**

This dataset contains observations from the FRM4GHG campaign which started in March 2017 at Sodankylä, Finland (67.37° N, 26.63° E, 188 m a.s.l).

### **Data description:**

The dataset contains raw data from 5 participating remote sensing instruments, namely Bruker IFS 125HR – operated by Finnish Meteorological Institute (FMI, Finland), Bruker Vertex 70 – operated by Royal Belgian Institute for Space Aeronomy (BIRA-IASB, Belgium) and University of Bremen (Uni. Bremen, Germany), Bruker EM27/SUN – operated by Karlsruhe Institute of Technology (KIT, Germany), Bruker IR Cube – operated by University of Wollongong (Uni. Wollongong, Australia), Laser Heterodyne Radiometer (LHR) – operated by Rutherford Appleton Laboratory (RAL, United Kingdom), and an in-situ instrument namely AirCore – operated by University of Groningen (Uni. Groningen, The Netherlands) and Finnish Meteorological Institute (FMI, Finland). In addition, it also contains the auxiliary data from the meteorological station and the corresponding NCEP pressure-temperature profiles for the measurement days.

### **Data accessibility:**

The FRM4GHG dataset is hosted on a BIRA-IASB server. Any individual requesting the data is asked to contact the data manager as well as the responsible person by email (given below). They need to provide their contact details and a valid FTP account or an SSH key where the data manager will then upload the data. Note that the file size of the data is about 600 GB, so make sure that this space is available on your server. Please review the license file included with the dataset to understand the usage and citation requirements for the dataset. Further information on the project and results are available on the project website: <http://frm4ghg.aeronomie.be/>.

### **Contact details:** (Send e-mail to)

Data manager: BISA Data Manager; e-mail: [data-manager-ae@aeronomie.be](mailto:data-manager-ae@aeronomie.be)

Responsible person: Mahesh Kumar Sha; e-mail: [mahesh.sha@aeronomie.be](mailto:mahesh.sha@aeronomie.be)

Subject: request for FRM4GHG raw dataset

Main text: Doi name:

Your contact details and FTP account or an SSH key