



# Use of DIVA platform for Cal/Val procedures and best practices for EarthCARE aerosol and cloud products exercise

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# Outline

- Introduction / What DIVA is?
- Main features
- How does it fit for EarthCARE cal/val
- Examples of use - Demo part
  - Grasp
  - EarthCARE cal/val
- Future developments

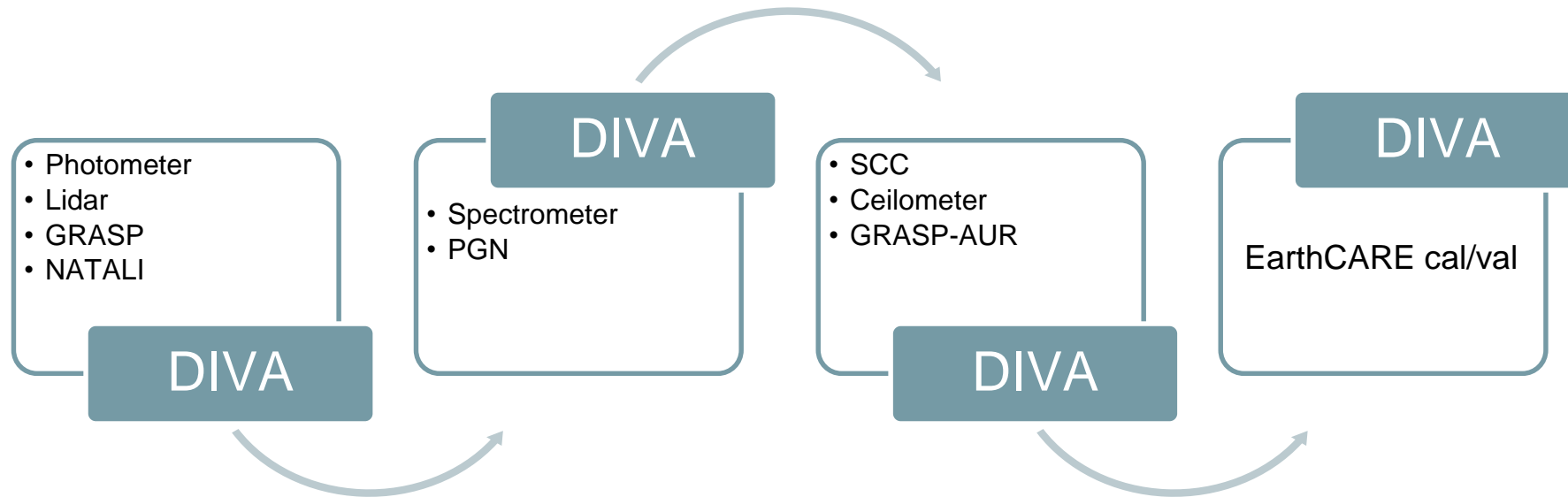




# Introduction

Demonstration of an Integrated approach for Validation and exploitation of Atmospheric missions

- set-up a hub to collect, handle and exploit observational data, provided by Ground-Based network infrastructures for the validation of ESA Atmospheric missions.



## Main features

Collaborative python based platform:

- Algorithm development for new products;
- Check code;
- Disseminate best practices within community;
- Education;

Pre-installed python modules used for EO

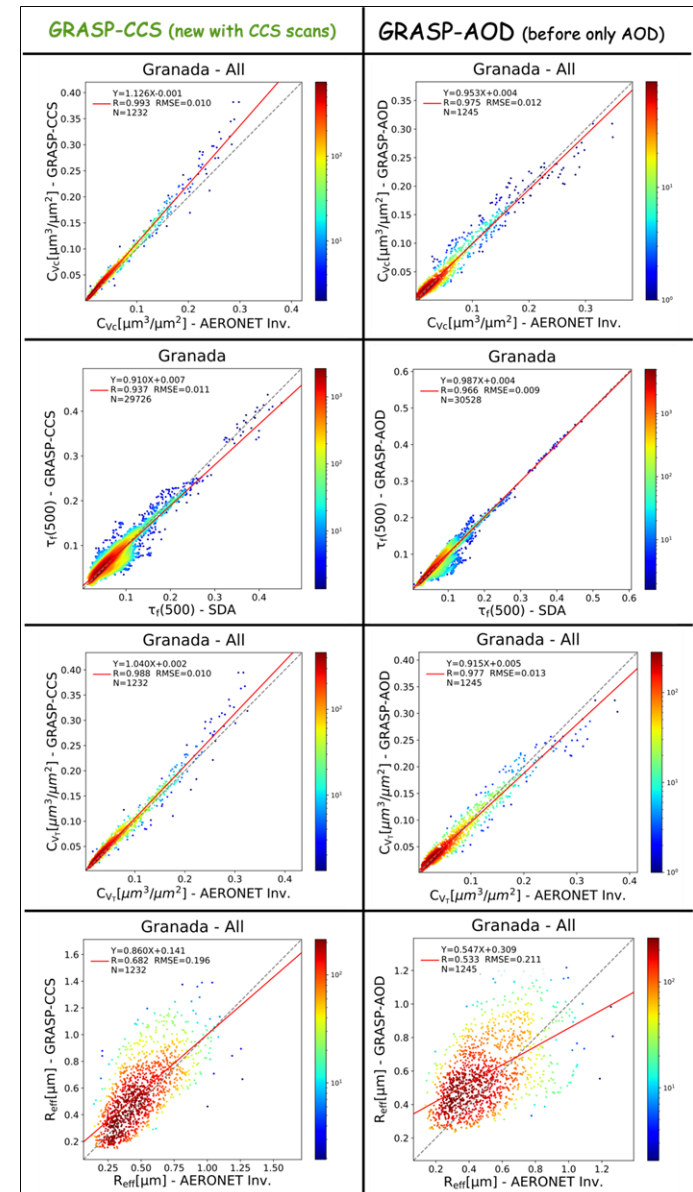
- Download - Earlinet, EarthCARE API, **CLOUDNET (soon)**
- Reading - xarray, pandas, **pydiva**
- Plotting - matplotlib
- Development - GRASP, NATALI, **pygrasp**

User side:

- Own environment with pre-installed python modules;
- Private/shared space;
- Bring your own data;
- Memory.

# Road so far

- Reading and assimilating lidar, photometer, spectrometer, ceilometer data -> pydiva;
- Availability of GRASP, NATALI softwares;
- GEOMS converters;
- Further developments of products - GRASP-AUR
- EarthCARE cal/val



Credit: B. Torres and O. Dubovik  
U. Lille, LOA

# Demo

- Register:

<https://www.grasp-open.com/register/>

- Access:

<https://access-request.grasp-sas.com/service/grasp-cloud>

- Example of GRASP algorithm
- EarthCARE
- Other examples under shared /welcome
- Under development
  - OADS by default
  - Tool for L1 ATLID
  - CLOUDNET
- Contact:
  - [alexandru.dandocsi@inoe.ro](mailto:alexandru.dandocsi@inoe.ro)
  - [marcos.herreras@grasp-earth.com](mailto:marcos.herreras@grasp-earth.com)