

IPSL Analytics-Hub

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Motivation

The IPSL Analytics-Hub facility provides a data science environment with (i) computational and storage resources, (ii) tools, libraries and services as well as (iii) a set of collections of climate model data in the context of climate model intercomparison. This environment is hosted as part of the IPSL data infrastructure and wants to support user groups with respect to climate data collection, access, processing and analysis. The hosted data concentrates on model data generated as part of the CMIP & CORDEX climate model intercomparison project. This document summarizes the initial service offerings around this data pool and will be updated regularly to reflect the evolution of these services.

Registration

- To access the IPSL Analytics-Hub, the user needs to be registered at IPSL
 - Registration will be done once the proposal has been accepted
- After registration users is enabled to use a set of services and data.
- Registered users can contact **meso-support@ipsl.fr** for any information request.

Data pool content

IPSL will provide access to a set of specific CMIP & CORDEX variable-centric collections together with access to a set of reference observation datasets (Reanalysis, Obs4MIPs, input4MIPs, , ...). If not already available in house data will be downloaded and kept in sync with the ESGF federated data archive using the synda replication tool. About 4PB disk space have been allocated to this purpose.

Data pool access

The data pool is efficiently accessible from cluster resources as well as Jupyter Notebook. Users can request the installation of additional data by contacting the user support at: **meso-support@ipsl.fr**

- users can login into the front end node of the IPSL Analytics-Hub and run interactive and batch analytics operators;
- The pool data is accessible from all compute nodes.

Technical information about the IPSL Analytics-Hub

Compute resources, storage and installed software:

- Analytics-Hub cluster with compute nodes (2000 cores, up to 256 GB RAM/node, PBS resource manager, Network (InfiniBand QDR à 40Gbits/s and FDR at 56Gbit/s) ;
- 50 TB shared storage for data analysis (Lustre), temporary and final results;
- Software: the cluster runs the classical set of software used for climate model analysis and libraries.

User support

- For any request users can send an email to: **meso-support@ipsl.fr**

User agreement

- The user agreement comes with account opening
- <http://mesocentre.ipsl.fr/account-opening/>