



OSCARS

Open Science Clusters' Action
for Research & Society



Current status and future plans



Funded by
the European Union

3 instances of VRE deployed at LAPP

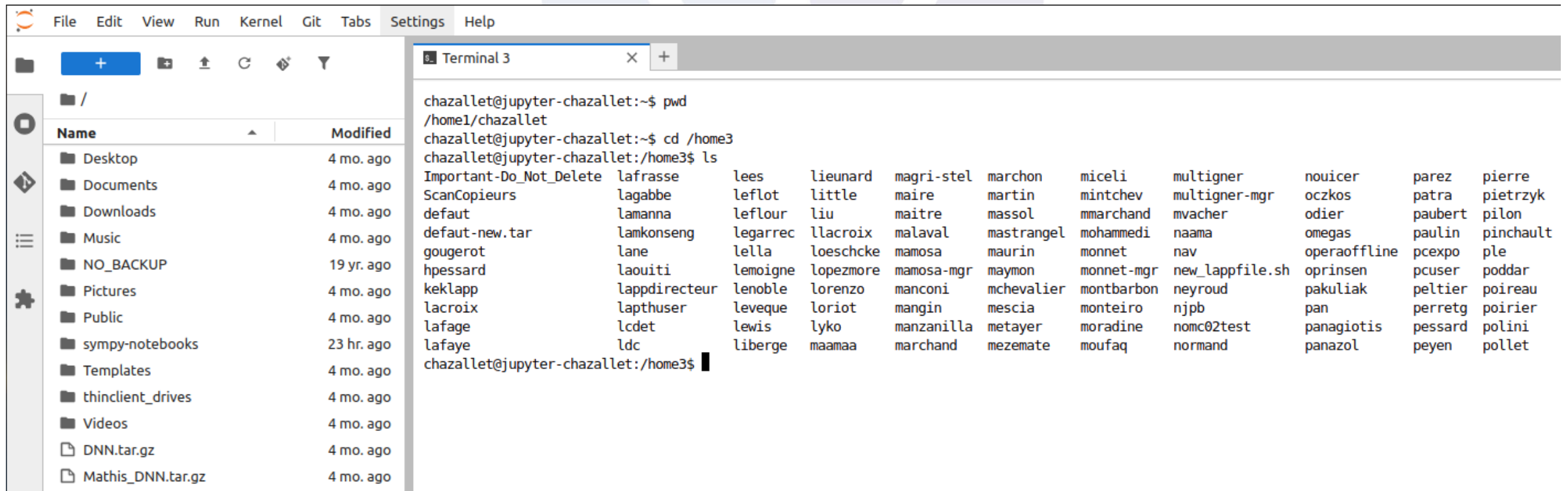
- 2 for production purpose: **jupyter**, **eosc-vre**
 - jupyter = LAPP VRE, LDAP, a few users
 - eosc-vre = EOSC VRE, IAM
- 1 for testing purpose: jupyter-test

<https://jupyter.must-dc.cloud/>

<https://eosc-vre.must-dc.cloud/>



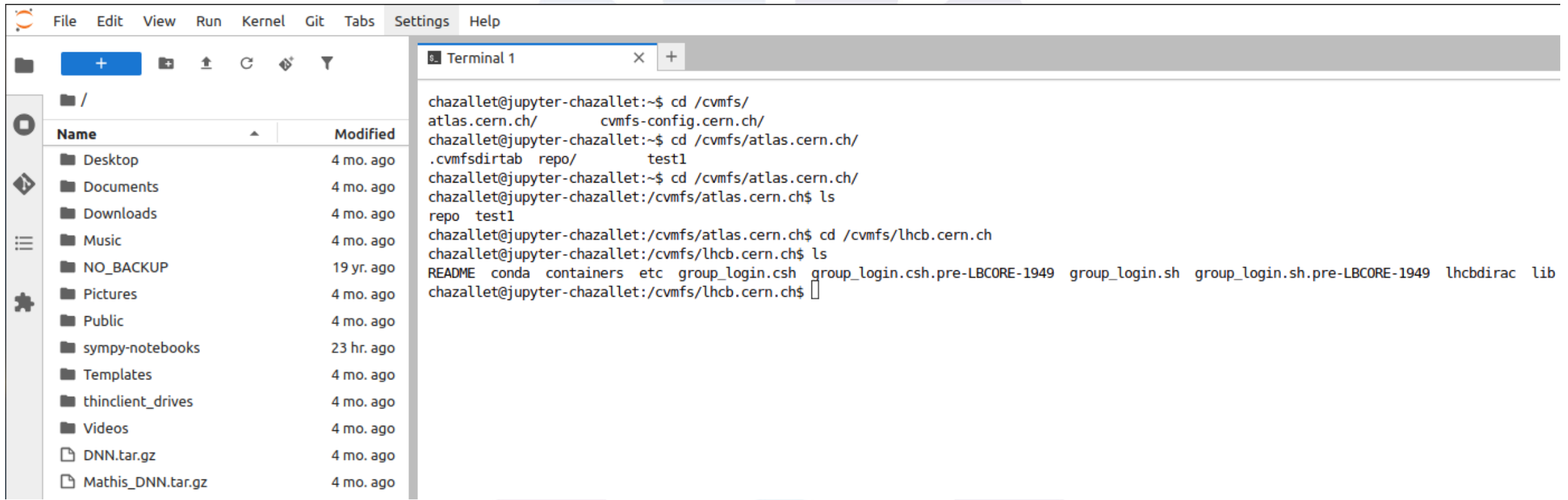
- Currently implementing new features on the test instance so that we can reach production for the LAPP VRE
 - Retrieving automatically user data to get personal user
 - Access to NFS storage
 - /home1, /home3, ...



The screenshot shows a JupyterLab interface. On the left is a file browser with a sidebar containing icons for home, search, and other functions. The main area of the file browser shows a list of files and folders with columns for 'Name' and 'Modified'. The files include Desktop, Documents, Downloads, Music, NO_BACKUP, Pictures, Public, sympy-notebooks, Templates, thinclient_drives, Videos, DNN.tar.gz, and Mathis_DNN.tar.gz. On the right is a terminal window titled 'Terminal 3'. The terminal shows the following commands and output:

```
chazallet@jupyter-chazallet:~$ pwd
/home1/chazallet
chazallet@jupyter-chazallet:~$ cd /home3
chazallet@jupyter-chazallet:/home3$ ls
Important-Do_Not_Delete  lafrasse      lees          lieunard      magri-stel    marchon       miceli        multigner     nouicer       parez         pierre
ScanCopieurs            lagabbe       leflot        little        maire         martin        mintchev     multigner-mgr  oczkos        patra         pietrzyk
default                  lamanna       leflour       liu           maitre        massol        mmarchand    mvacher       odier         paubert       pilon
default-new.tar          lamkonseng    legarrec      llacroix      malaval       mastrangel    mohammedi    naama         omegas        paulin        pinchault
gougerot                lane          lella         loeschcke     mamosa        maurin        monnet       nav           operaoffline  pcexpo       ple
hpessard                laouiti       lemoigne      lopezmore     mamosa-mgr    maymon        monnet-mgr   new_lappfile.sh oprinsen     pcuser       poddar
keklapp                 lappdirecteur lenoble       lorenzo       manconi       mchevalier    montbarbon   neyrout       pakuliak     peltier      poireau
lacroix                 lapthuser     leveque       loriot        mangin        mescia        monteiro     njpb          pan           perretg      poirier
lafage                  lcdet         lewis         lyko          manzanilla    metayer       moradine     nomc02test    panagiotis   pessard      polini
lafaye                  ldc           liberge       maamaa        marchand      mezemate      moufaq       normand       panazol      peyen        pollet
```

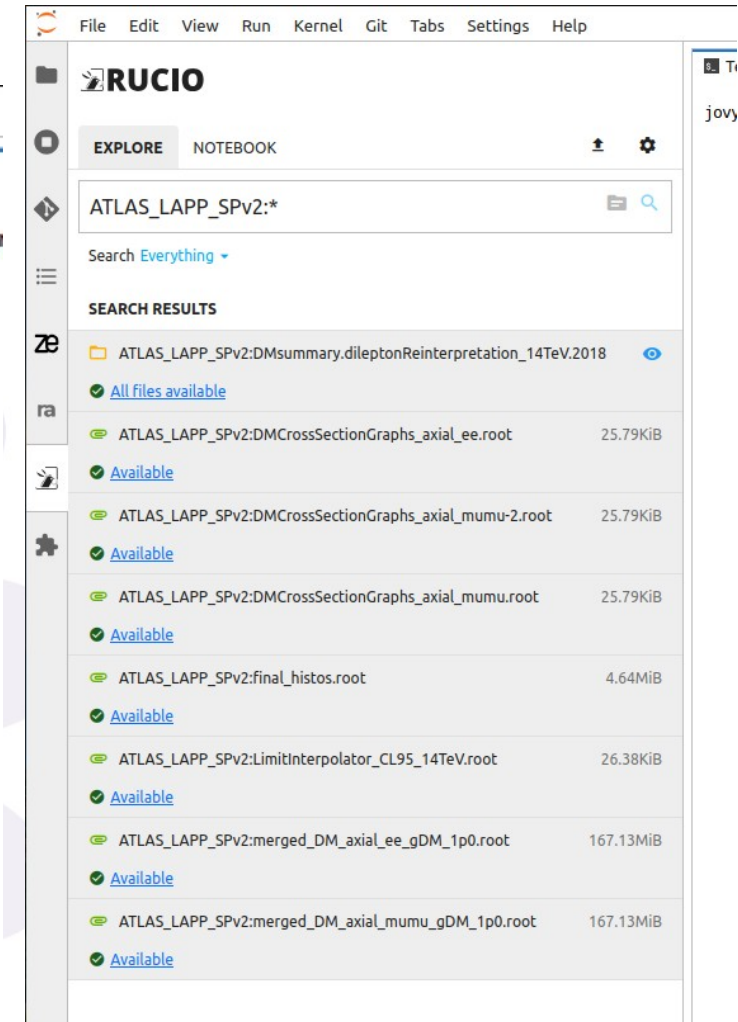
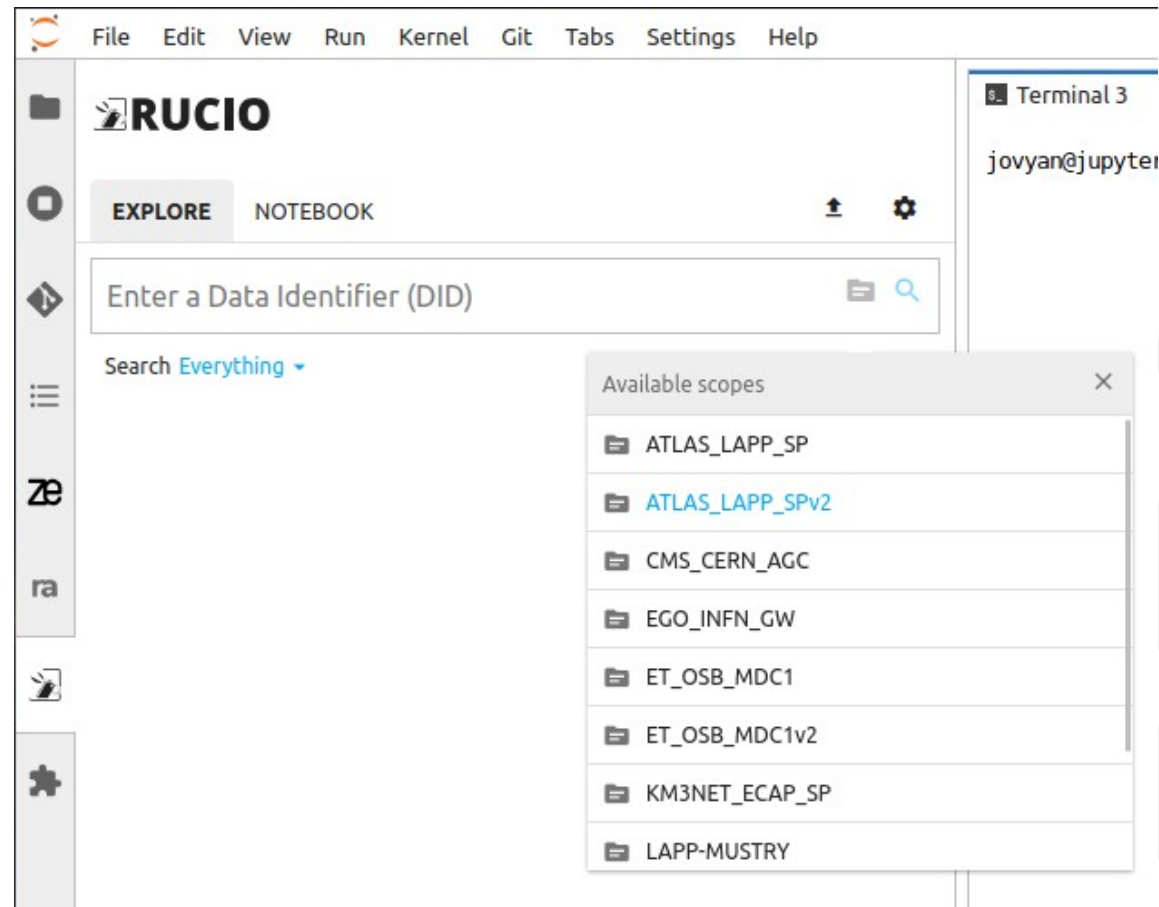
- Access to CVMFS storage
 - CERN tools



The screenshot displays the JupyterLab web interface. On the left, a file browser shows the local file system with a sidebar containing icons for home, search, and settings. The main pane lists directories like Desktop, Documents, Downloads, Music, NO_BACKUP, Pictures, Public, sympy-notebooks, Templates, thinclient_drives, and Videos, along with files DNN.tar.gz and Mathis_DNN.tar.gz. On the right, a terminal window titled 'Terminal 1' shows a series of commands and their outputs. The commands navigate through the CVMFS file system, listing contents of various directories.

```
chazallet@jupyter-chazallet:~$ cd /cvmfs/  
atlas.cern.ch/      cvmfs-config.cern.ch/  
chazallet@jupyter-chazallet:~$ cd /cvmfs/atlas.cern.ch/  
.cvmfsdirtab  repo/      test1  
chazallet@jupyter-chazallet:~$ cd /cvmfs/atlas.cern.ch/  
chazallet@jupyter-chazallet:/cvmfs/atlas.cern.ch$ ls  
repo test1  
chazallet@jupyter-chazallet:/cvmfs/atlas.cern.ch$ cd /cvmfs/lhcb.cern.ch  
chazallet@jupyter-chazallet:/cvmfs/lhcb.cern.ch$ ls  
README  conda  containers  etc  group_login.csh  group_login.csh.pre-LBCORE-1949  group_login.sh  group_login.sh.pre-LBCORE-1949  lhcbdirac  lib  
chazallet@jupyter-chazallet:/cvmfs/lhcb.cern.ch$
```

- Access to Rucio data
- Creation of v2 scopes to make data available once again



Download summary

DID ATLAS_LAPP_SPv2:DMsummary.dileptonReinterpretation_14TeV.2018

Total files (DID): 7

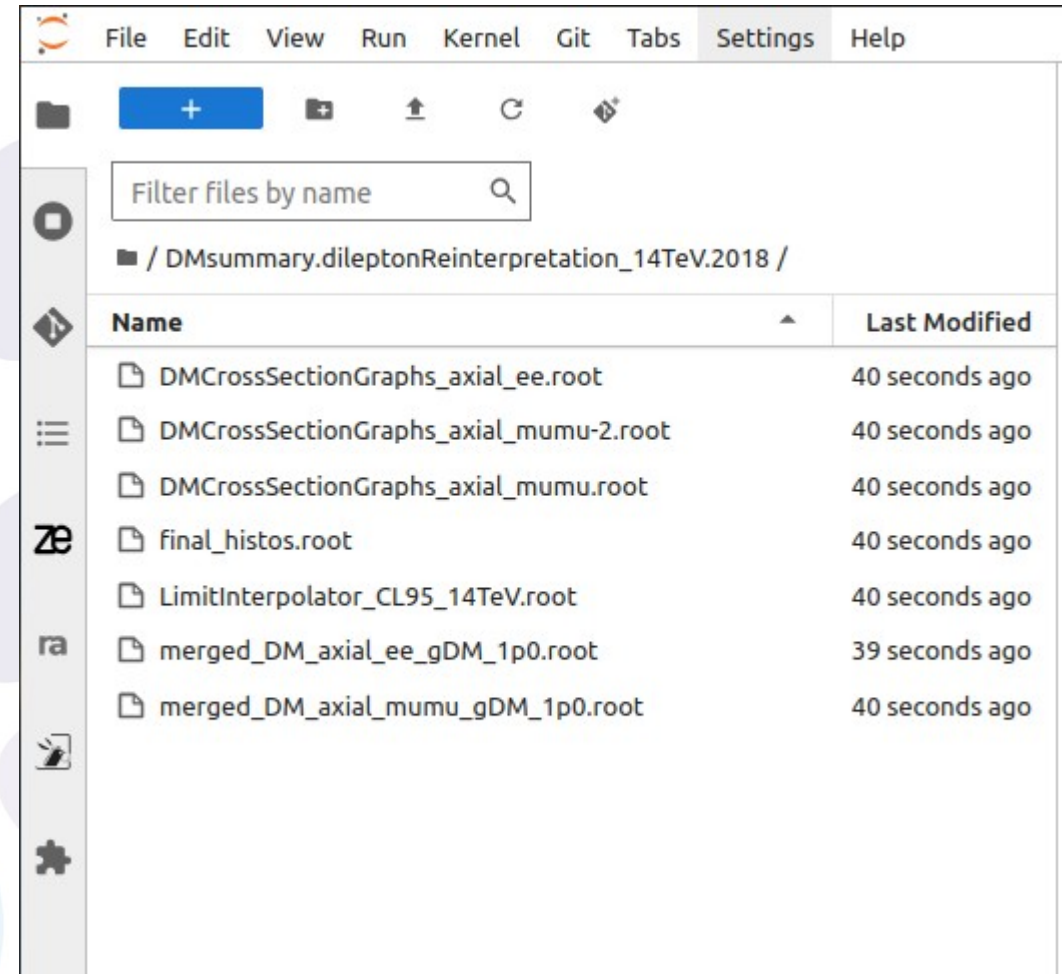
Total files (filtered): 7

Downloaded files: 7

Files already found locally: 0

Files that cannot be downloaded: 0

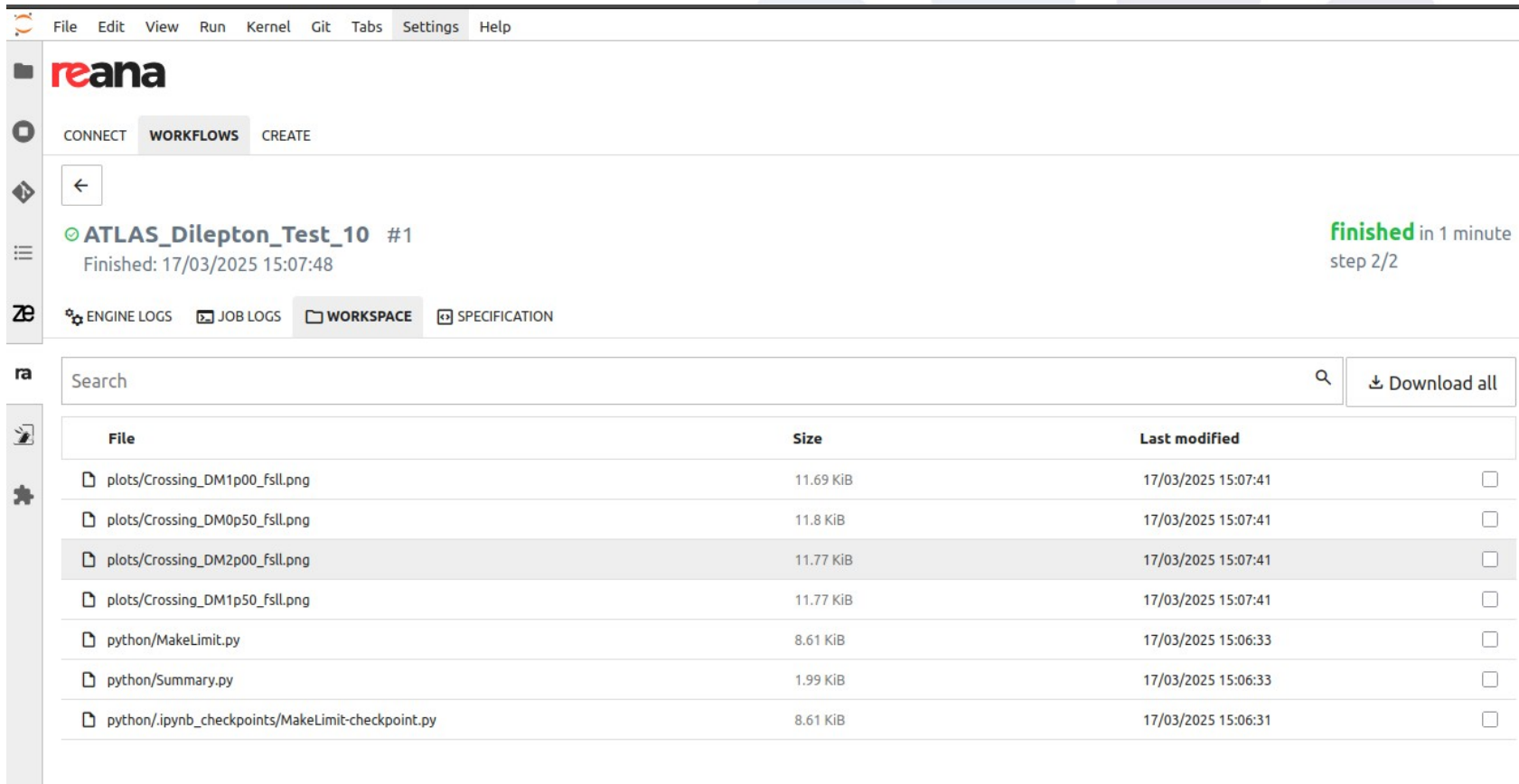
jovyan@jupyter-chazall:~\$



The screenshot shows the EOSC VRE file browser interface. The top menu bar includes File, Edit, View, Run, Kernel, Git, Tabs, Settings, and Help. Below the menu is a toolbar with icons for adding, creating, uploading, refreshing, and deleting files. A search bar labeled "Filter files by name" is present. The current directory is "/ DMsummary.dileptonReinterpretation_14TeV.2018 /". A table lists the files in the directory, showing their names and last modified times.

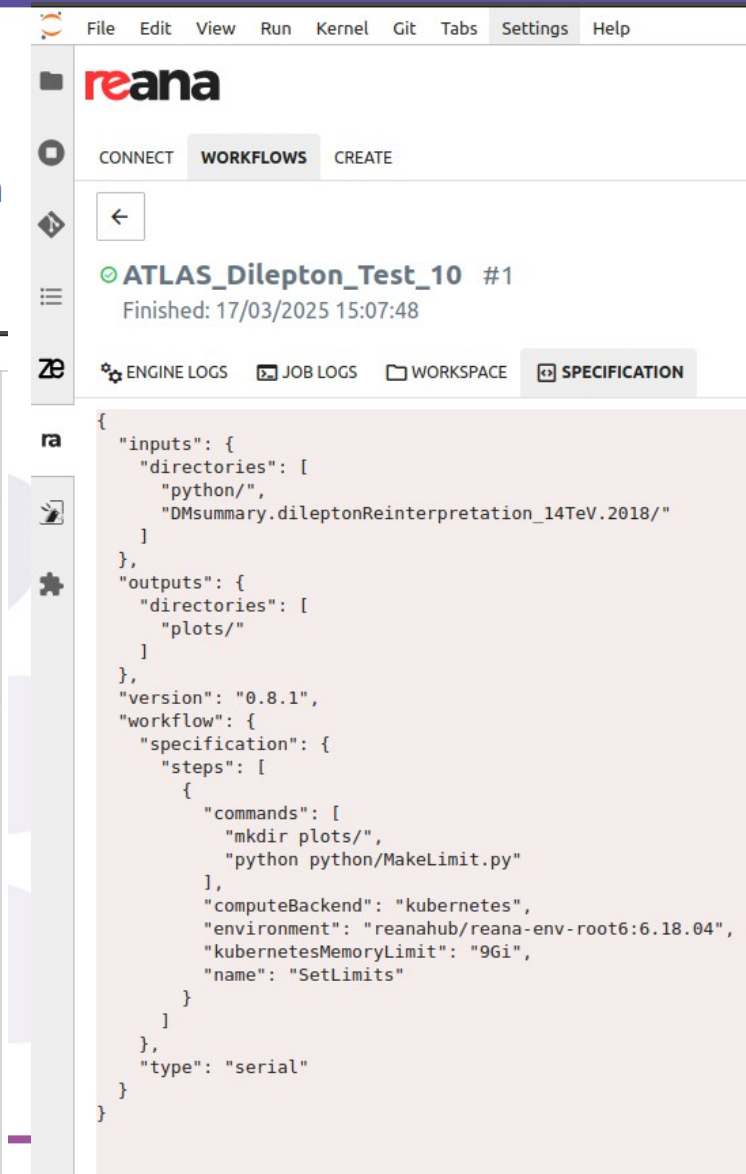
Name	Last Modified
DMCrossSectionGraphs_axial_ee.root	40 seconds ago
DMCrossSectionGraphs_axial_mumu-2.root	40 seconds ago
DMCrossSectionGraphs_axial_mumu.root	40 seconds ago
final_histos.root	40 seconds ago
LimitInterpolator_CL95_14TeV.root	40 seconds ago
merged_DM_axial_ee_gDM_1p0.root	39 seconds ago
merged_DM_axial_mumu_gDM_1p0.root	40 seconds ago

- Use of REANA workflow using the downloaded data
 - <https://github.com/jared-little/atlas-dilepton/tree/bfb8ab9b99c2eceaf3d80ea53d70f33ceb087526>



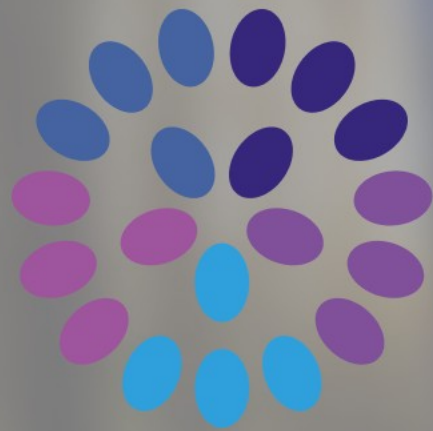
The screenshot shows the REANA web interface. At the top, there's a navigation bar with 'File', 'Edit', 'View', 'Run', 'Kernel', 'Git', 'Tabs', 'Settings', and 'Help'. Below this, the 'reana' logo is visible. The main area shows a workflow named 'ATLAS_Dilepton_Test_10 #1' which is 'finished' in 1 minute, step 2/2. Below the workflow status, there are tabs for 'ENGINE LOGS', 'JOB LOGS', 'WORKSPACE', and 'SPECIFICATION'. The 'WORKSPACE' tab is active, displaying a table of files.

File	Size	Last modified
plots/Crossing_DM1p00_fsll.png	11.69 KiB	17/03/2025 15:07:41
plots/Crossing_DM0p50_fsll.png	11.8 KiB	17/03/2025 15:07:41
plots/Crossing_DM2p00_fsll.png	11.77 KiB	17/03/2025 15:07:41
plots/Crossing_DM1p50_fsll.png	11.77 KiB	17/03/2025 15:07:41
python/MakeLimit.py	8.61 KiB	17/03/2025 15:06:33
python/Summary.py	1.99 KiB	17/03/2025 15:06:33
python/.ipynb_checkpoints/MakeLimit-checkpoint.py	8.61 KiB	17/03/2025 15:06:31



The screenshot shows the REANA web interface with the 'SPECIFICATION' tab active. It displays the workflow specification in JSON format.

```
{
  "inputs": {
    "directories": [
      "python/",
      "DMsummary.dileptonReinterpretation_14TeV.2018/"
    ]
  },
  "outputs": {
    "directories": [
      "plots/"
    ]
  },
  "version": "0.8.1",
  "workflow": {
    "specification": {
      "steps": [
        {
          "commands": [
            "mkdir plots/",
            "python python/MakeLimit.py"
          ],
          "computeBackend": "kubernetes",
          "environment": "reanahub/reana-env-root6:6.18.04",
          "kubernetesMemoryLimit": "9Gi",
          "name": "SetLimits"
        }
      ]
    },
    "type": "serial"
  }
}
```



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Thank you

