



ESCAPE

European Science Cluster of Astronomy &
Particle physics ESFRI research Infrastructures



LAPP
Laboratoire d'Annecy de Physique des Particules

- Dominique BOUTIGNY
- Sabine ELLES
- Marie PATUREL

WP5 Rubin Science Platform

ESCAPE meeting - June 7th, 2021




WP5 Rubin Science Platform

- Rubin Science Platform with our own configuration
- OK on private servers
- OK on VM at LAPP
 - Github authentication OK
- Next steps :
 - Test our own data (Local datasets from Subaru-HSC)
 - Nublado (Jupyter Notebook) → Nublado 2
 - Make the platform accessible



LSST Science Platform x +

← → ↻ 🔒 https://rsp.lapp.in2p3.fr ☆ 📧 📄 ☰




LSST
Large Synoptic Survey Telescope

Welcome to the LSST Science Platform

[Home](#)


[? Help](#)

Notebook Aspect



[NB Documentation](#)

Portal Aspect



Message of the day

December 4th, 2019

Normal Portal operations have been restored on the LSP integration instance. The new Helm-based deployment infrastructure is in place, and release 1.1.1 of the Portal is being used.

Check [here](#) for a complete list of messages.



RSP : Nublado

LSST Science Platform x +

← → ↻ <https://rsp.lapp.in2p3.fr/nb/hub/spawn> ☆

jupyterhub Home Token hellebore74 Logout

Server Options

Image

- Recommended (Weekly 2021_20)
 - Weekly 2021_23
 - Weekly 2021_22
 - Daily 2021_06_06
 - Daily 2021_06_05
 - Daily 2021_06_04
 - Release 22.0-rc.1
 - Release 21.0
 - or select image tag
- w_2021_23

Size

- Tiny (0.50 CPU, 1536M RAM)
- Small (1.00 CPU, 3072M RAM)
- Medium (2.00 CPU, 6144M RAM)
- Large (4.00 CPU, 12288M RAM)

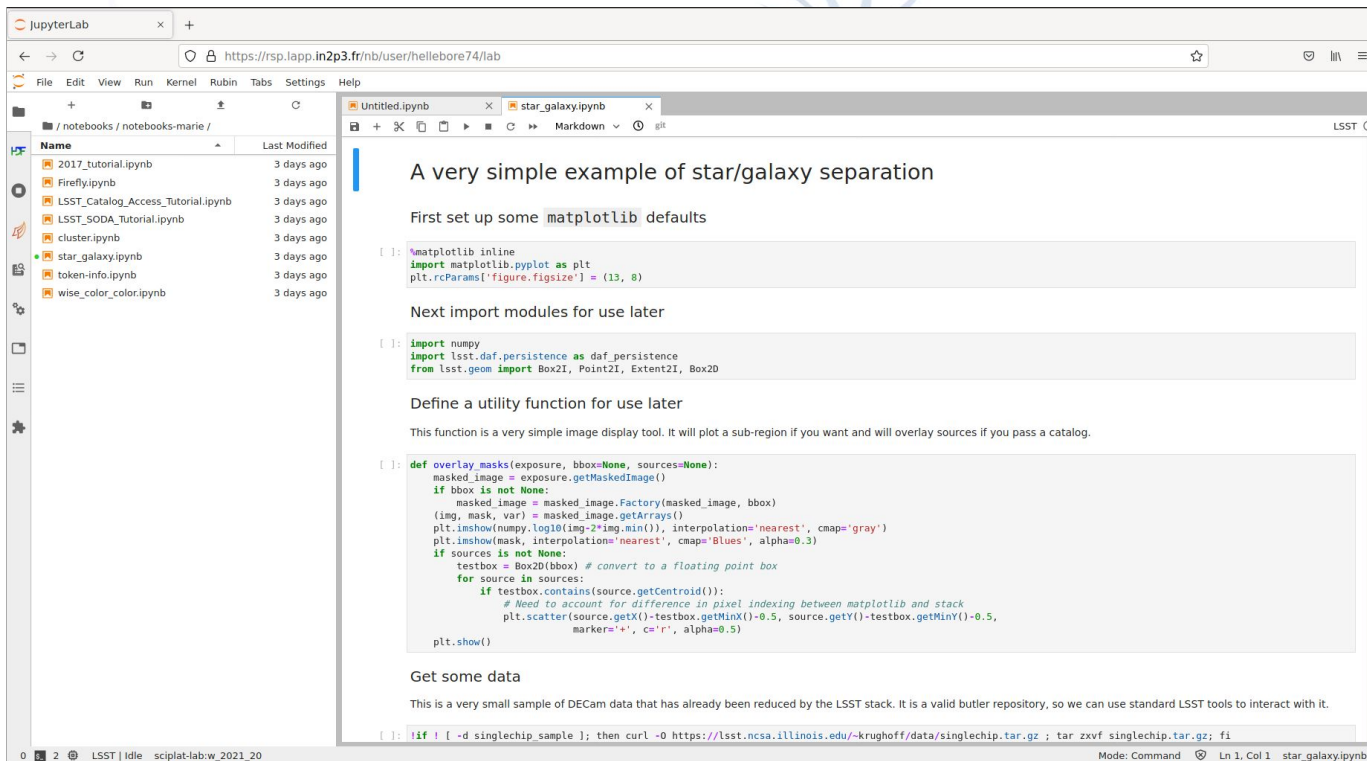
- Clear `.local` directory (caution!)
- Enable debugging logs in Lab

Menu updated at Mon Jun 7 07:08:11 2021 UTC

Start



RSP : Notebook



The screenshot shows a JupyterLab notebook titled "star_galaxy.ipynb". The interface includes a file browser on the left, a terminal at the bottom, and a main code editor area. The notebook content is as follows:

A very simple example of star/galaxy separation

First set up some `matplotlib` defaults

```
[ ]: %matplotlib inline
import matplotlib.pyplot as plt
plt.rcParams['figure.figsize'] = (13, 8)
```

Next import modules for use later

```
[ ]: import numpy
import lsst.daf.persistence as daf_persistence
from lsst.geom import Box2I, Point2I, Extent2I, Box2D
```

Define a utility function for use later

This function is a very simple image display tool. It will plot a sub-region if you want and will overlay sources if you pass a catalog.

```
[ ]: def overlay_masks(exposure, bbox=None, sources=None):
    masked_image = exposure.getMaskedImage()
    if bbox is not None:
        masked_image = masked_image.Factory(masked_image, bbox)
    (img, mask, var) = masked_image.getArrays()
    plt.imshow(numpy.log10(img-2*img.min()), interpolation='nearest', cmap='gray')
    plt.imshow(mask, interpolation='nearest', cmap='Blues', alpha=0.3)
    if sources is not None:
        testbox = Box2D(bbox) # convert to a floating point box
        for source in sources:
            if testbox.contains(source.getCentroid()):
                # Need to account for difference in pixel indexing between matplotlib and stack
                plt.scatter(source.getX()-testbox.getMinX()-0.5, source.getY()-testbox.getMinY()-0.5,
                            marker='v', c='r', alpha=0.5)
    plt.show()
```

Get some data

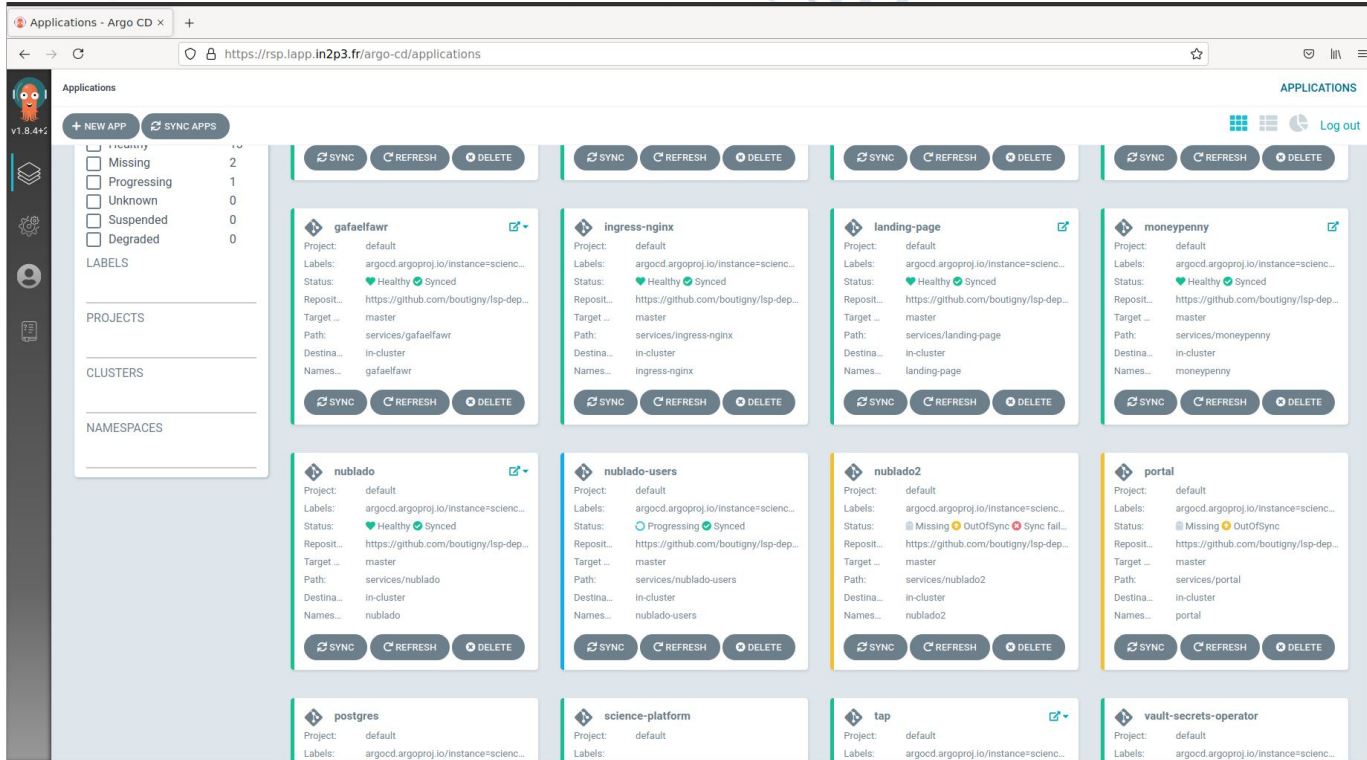
This is a very small sample of DECam data that has already been reduced by the LSST stack. It is a valid butler repository, so we can use standard LSST tools to interact with it.

```
[ ]: !if [ -d singlechip_sample ]; then curl -O https://lsst.ncsa.illinois.edu/~krughoff/data/singlechip.tar.gz ; tar xzvf singlechip.tar.gz; fi
```

Mode: Command | Ln 1, Col 1 | star_galaxy.ipynb



RSP : Argo CD



The screenshot displays the Argo CD web interface for an Argo CD instance. The browser address bar shows the URL: `https://rsp.lapp.in2p3.fr/argo-cd/applications`. The interface includes a sidebar with navigation options and a main content area with a grid of application cards. Each card provides details for a specific application, including its project, labels, status, repository, target, path, destination, and name. Control buttons for SYNC, REFRESH, and DELETE are available for each application.

Application Name	Project	Status	Repository	Target	Path	Destination	Name
gafaelfawr	default	Healthy Synced	https://github.com/boutigny/lsp-dep...	master	services/gafaelfawr	in-cluster	gafaelfawr
ingress-nginx	default	Healthy Synced	https://github.com/boutigny/lsp-dep...	master	services/ingress-nginx	in-cluster	ingress-nginx
landing-page	default	Healthy Synced	https://github.com/boutigny/lsp-dep...	master	services/landing-page	in-cluster	landing-page
moneypenny	default	Healthy Synced	https://github.com/boutigny/lsp-dep...	master	services/moneypenny	in-cluster	moneypenny
nublado	default	Healthy Synced	https://github.com/boutigny/lsp-dep...	master	services/nublado	in-cluster	nublado
nublado-users	default	Progressing Synced	https://github.com/boutigny/lsp-dep...	master	services/nublado-users	in-cluster	nublado-users
nublado2	default	Missing OutOfSync Sync fail...	https://github.com/boutigny/lsp-dep...	master	services/nublado2	in-cluster	nublado2
portal	default	Missing OutOfSync	https://github.com/boutigny/lsp-dep...	master	services/portal	in-cluster	portal
postgres	default						
science-platform	default						
tap	default						
vault-secrets-operator	default						

