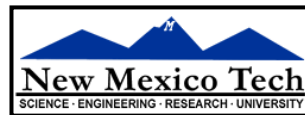# ALMA Pipeline products and restoring calibrated data

Seventeenth Synthesis Imaging Workshop

29 June – July 17 2020

ALMA Pipeline products and restoring calibrated data

ALMA Data Reduction Tutorial

Synthesis Imaging Summer School

Atacama Large Millimeter/submillimeter Array
Expanded Very Large Array
Robert C. Byrd Green Bank Telescope
Very Long Baseline Array

NRAO

Tutorial download link – for people using their own computers

The data for this tutorial can be downloaded from this link:

https://bulk.cv.nrao.edu/almadata/public/ALMA_tutorial/Download_files/Pipeline/

The directory also includes the presentation (ALMA-Pipeline-tutorial-SISS2020.pdf) and an example imaging script (scriptForImaging_robust0.py)

Download all the files to a directory named Pipeline

Untar the files using the following command (change file name as needed):

tar xvf 2019.1.00195.L_uid___A001_X146c_Xa2_001_of_001.tar

Tutorial data repository – for people using NRAO resources

Login to the NRAO cluster node on your computer, following instructions sent to you.

The data for this tutorial are in the SDP81 directory

> `cd /lustre/aoc/siw/nrao/data/ALMA/Pipeline`

Copy all files from the SDP81 directory to your data directory

> `cp -r * /lustre/aoc/observers/nm-****/data/.`

> `mkdir Pipeline`

`Untar the files using the following command (change file name as needed) to Pipeline directory:`

`tar xvf 2019.1.00195.L_uid___A001_X146c_Xa2_001_of_001.tar`

Tutorial data repository – for people using NRAO resources

The presentation and an example imaging script can be downloaded at:
https://bulk.cv.nrao.edu/almadata/public/ALMA_tutorial/Download_files/Pipeline/

Presentation: ALMA-Pipeline-tutorial-SISS2020.pdf

Imaging script: scriptForImaging_robust0.py

CASA version – 5.6.1-8 containing ALMA pipeline

The **CASA** version used for this tutorial can be downloaded from this link (download **CASA** containing **ALMA** pipeline 5.6.1-8):

https://casa.nrao.edu/casa_obtaining.shtml

Also download the **Analysis Utilities** package and edit **CASA** initialization file following instructions here:

https://casaguides.nrao.edu/index.php/Analysis_Utilities

For participants using **NRAO** resources:

Default casa version on **NM** cluster is casa 5.6.1-8.el7

Copy analysis_scripts.tar from `/lustre/aoc/siw/nrao/data/ALMA/` to your home directory, untar and edit casa initialization file as described in link above

Tutorial Startup

NM-lustre users: Login from your computer

```
> cd /lustre/aoc/observers/nm-****/data
```

Everyone:

```
> cd Pipeline
```

CASA Startup

$ **casa --pipeline(or casa -r version --pipeline, e.g. casa -r 5.6.1-8.el7 -pipeline if you have multiple casa versions installed)**