## 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



# 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/P ipeline/

The directory also includes the presentation (ALMA-Pipelinetutorial-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: <u>https://bulk.cv.nrao.edu/almadata/public/ALMA\_tutorial/Download\_files/Pipeline/</u>

5

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): <u>https://casa.nrao.edu/casa\_obtaining.shtml</u>

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)

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