



EUROPEAN ARC
ALMA Regional Centre || Allegro



The ALMA Archive

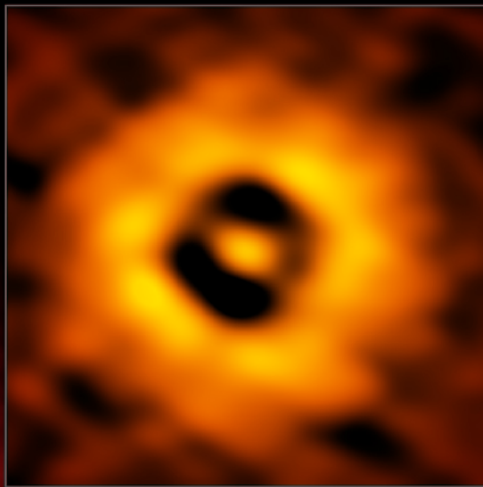
More details at the ALMA Science Portal:
almascience.eso.org/alma-data/archive

Allegro

www.alma-allegro.nl

ERIS 2017
Dwingeloo (NL)

Oct 19th, 2017



TW Hya



Andrews et al. 2016

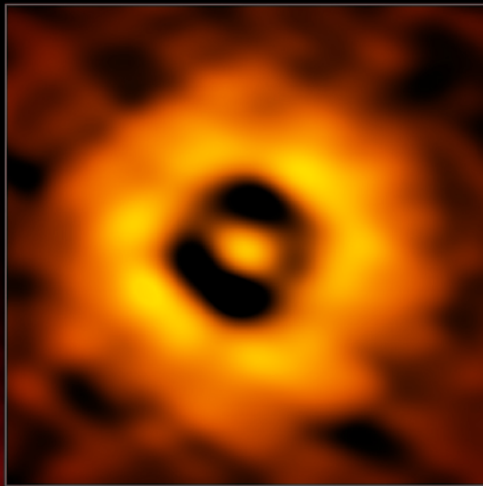
"Ringed Substructure and a Gap at 1 AU in the Nearest Protoplanetary Disk"

2016, *Astrophysical Journal Letters*,
820, L40

arxiv.org/abs/1603.09352

FITS files:

[www.cfa.harvard.edu/~sandrews/
data/twhya/](http://www.cfa.harvard.edu/~sandrews/data/twhya/)



TW Hya



Andrews et al. 2016

"Ringed Substructure and a Gap at 1 AU in the Nearest Protoplanetary Disk"

2016, *Astrophysical Journal Letters*,
820, L40

This paper makes use of the
following ALMA data:

ADS/JAO.ALMA#2015.1.00686.S,
ADS/JAO.ALMA#2011.1.00399.S,
and

ADS/JAO.ALMA#2013.1.00198.S.

ALMA Archive

<http://almascience.eso.org/aq/>



ALMA Science Archive Query

Query Form

Results Table

Search

Reset

[Query Help](#)

Position

Source name (Resolver)
Source name (ALMA)
RA Dec
Galactic
Angular resolution
Largest angular scale
Field of view

Energy

Frequency
Bandwidth
Spectral resolution
Band

Time

Observation date
Integration time

Polarisation

Polarisation type

Observation

Line sensitivity (10 km/s)
Continuum Sensitivity
Water vapour

Project

Project code
Project title
PI name
Proposal authors
Project abstract
Publication count
Science keyword

Publication

Bibcode
Title
First author
Authors
Abstract
Year

Options

View:

- ☒ raw data
- ☐ project
- ☐ publication
- ☐ public data only
- ☒ science observations only

More details at the Science Portal Documentation:

<https://almascience.eso.org/alma-data/archive>

ALMA Archive

<http://almascience.eso.org/aq/>



ALMA Science Archive Query

Query Form

Results Table

Search

Reset

[Query Help](#)

Position

Source name (Resolver)

TW Hya

Source name (ALMA)

RA Dec

Galactic

Target list

Angular resolution

Largest angular scale

Field of view

Energy

Source name (Resolver)

Case-insensitive search for source name, to be resolved with Sesame. Wildcard matching is disabled. Search is performed within a radius of 10 arcminutes.

A search radius in degrees can be added to the end separated by a comma.

Description.

Use Sesame (via. NED, Simbad and VizieR) to parse names commonly found throughout literature. A green tick indicates a successful search, otherwise, a red cross is returned.

Example

Cen A

NGC3375

ARP220_20

Source

V* TW Hya

Coordinates (RA Dec)

11:01:51.90 -34:42:17.0

Object type

TT* (T Tau-type Star)

Resolver

Sesame using [Simbad](#)

Time

Polarisation

Polarisation type

Observation

Line sensitivity (10 km/s)

Continuum sensitivity

Water vapour

Options

View:

- ☒ observation
- ☐ project
- ☐ publication
- ☐ public data only
- ☒ science observations only

More details at the Science Portal Documentation:

<https://almascience.eso.org/alma-data/archive>

ALMA Science Archive Query

Query Form Results Table

Submit download request

[Close Viewer](#) [Results Bookmark](#) [Export Table](#) [Results Help](#)

J2000 $\updownarrow$ 11 01 51.796 -34 42 17.37

FoV: 6.97'

$\pm$
x



	Project code $\triangle$	Source name	RA	Dec	Band	Integration	Release date	Velocity resolution	Frequency support	Pub
Filter:			H:M:S $\updownarrow$	D:M:S $\updownarrow$		seconds $\updownarrow$		m/s $\updownarrow$		
☐	2013.1.00192.S	TW_Hya	11:01:51.82	-34:42:17.2	7	1028.160	2016-09-10	261.85	279.42..294.96GHz	0
☐	2013.1.00196.S	TW_Hya	11:01:51.88	-34:42:17.2	7	6441.120	2016-06-12	110.93	329.55..341.03GHz	1
☐	2013.1.00198.S	TW_Hya	11:01:51.83	-34:42:17.2	7	846.720	2016-03-03	216.41	337.35..352.24GHz	4
☐	2013.1.00198.S	TW_Hya	11:01:51.82	-34:42:17.2	7	1693.440	2016-10-17	216.44	337.30..352.19GHz	4
☐	2013.1.00387.S	TW_Hya	11:01:51.82	-34:42:17.2	6	2661.120	2016-09-16	39.69	226.62..244.94GHz	3
☐	2013.1.00527.S	TW_Hya	11:01:51.82	-34:42:17.2	8	1632.960	2017-02-05	593.85	479.06..494.88GHz	0
☐	2013.1.00902.S	TW_Hya	11:01:51.83	-34:42:17.2	7	2449.440	2016-02-02	238.28	304.16..318.62GHz	2
☐	2013.1.01397.S	TW_Hya	11:01:51.82	-34:42:17.2	7	3144.921	2016-07-14	54.34	329.24..342.90GHz	1
☒	2015.1.00139.S	TW_Hya	11:01:51.82	-34:42:17.3	9	2630.766	2017-10-21	234.24	604.49..626.13GHz	0
☐	2015.1.00308.S	TW_Hya	11:01:51.82	-34:42:17.3	7	4112.637	2017-04-13	222.26	313.79..329.49GHz	0
☒	2015.1.00686.S	TW_Hya	11:01:51.82	-34:42:17.3	7	7909.742	2017-01-16	1639.73	343.51..358.06GHz	2
☐	2015.1.00845.S	TW_Hydrae	11:01:51.87	-34:42:17.2	4	4838.400	2017-08-16	999.60	143.98..157.35GHz	0
☐	2015.1.00845.S	TW_Hydrae	11:01:51.88	-34:42:17.2	4	4656.960	2017-08-10	1112.28	129.54..132.52GHz	0
☒	2015.1.01137.S	TW_Hya	11:01:51.82	-34:42:17.3	8	120.960	2018-02-20	298.91	476.58..492.17GHz	0
☒	2015.1.01597.S	TW_Hya	11:01:51.82	-34:42:17.3	8	1270.080	2018-02-10	1195.79	477.47..492.25GHz	0
☐	2015.A.00005.S	TW_Hya	11:01:51.82	-34:42:17.3	6	2431.296	2016-07-05	40208.22	223.00..243.00GHz	1
☐	2015.A.00005.S	TW_Hya	11:01:51.82	-34:42:17.3	4	2540.160	2016-07-05	64626.79	136.99..152.99GHz	1
☒	2016.1.00229.S	TW_Hya	11:01:51.81	-34:42:17.3	6	2419.200	2018-05-07	166.02	217.08..235.28GHz	0
☒	2016.1.00229.S	tw_hya	11:01:51.82	-34:42:17.3	7	2963.520	2018-03-03	209.51	336.34..351.29GHz	0
☒	2016.1.00229.S	TW_Hya	11:01:51.81	-34:42:17.3	3	2612.736	2018-09-06	215.75	84.07..98.85GHz	0

The scripts in the PI data package



Example of directory structure after unpack:

```
2012.1.01234.S/science_goal.uid___A001_X12345_X123/  
group.uid___A002_X6789ab_X6789member.uid___A002_Xcdef1_X234/
```

With subdirectories:

```
calibrated calibration log product qa raw script README
```

More details at the Science Portal Documentation:
<https://almascience.eso.org/alma-data/archive>



The scripts in the PI data package



```
project_id/  
└─ sg_ouss_id/  
    └─ group_ouss_id/  
        └─ member_ouss_id/  
            └─ README.txt  
            └─ product/  
            └─ calibration/  
            └─ qa/  
            └─ script/  
            └─ log/  
            └─ raw/
```

READ THIS FIRST

the FITS cubes of all images

calibration tables

diagnostic summary and plots

calibration and imaging scripts

calibration and imaging log files

created when ASDMs are unpacked

More details at the Science Portal Documentation:

<https://almascience.eso.org/documents-and-tools/cycle3/ALMAQA2Products3.0.pdf>

The scripts in the PI data package



```
project_id/  
└─ sg_ouss_id/  
    └─ group_ouss_id/  
        └─ member_ouss_id/  
            └─ README  
            └─ product/  
            └─ calibration/  
            └─ qa/  
            └─ script/  
            └─ log/  
            └─ raw/  
            └─ calibrated/
```

READ THIS FIRST

the FITS cubes of all images

calibration tables

diagnostic summary and plots

calibration and imaging scripts

calibration and imaging log files

created when ASDMs are unpacked

created when `scriptForPI.py` is run

More details at the Science Portal Documentation:

<https://almascience.eso.org/documents-and-tools/cycle3/ALMAQA2Products3.0.pdf>

The scripts in script folder

Filename	Origin	Purpose
uid*.ms.scriptForCalibration.py (optional)	script-generator/ analyst	calibrates a single EB (ASDM); results in one uid*.ms.split.cal
PPR*.xml (optional)	ALMA Pipeline	controlled the run of the ALMA Pipeline; contains the list of ASDMs
casa_piperestorescript.py (optional)	ALMA Pipeline	calibrates all pipeline-processed EBs; results in one uid*.ms.split.cal per EB
casa_pipescript.py (optional)	ALMA Pipeline	enables user to rerun the Pipeline from scratch results in one uid*.ms.split.cal per EB
scriptForFluxCalibration.py (optional)	script-generator/ analyst	adjust the flux calibration of several EBs close in time which use same phase calibrator; prepare imaging; results is calibrated.ms
scriptForImaging.py	script-generator/ analyst	create all imaging products for the MOUS; results in (among others) *.fits files for all images
scriptForPI.py	added in packaging	Perform all necessary steps to create all uid*.ms.split.cal MSs

The European ARC network



For support on ALMA proposal preparation and data reduction you can address your local ALMA ARC node!

www.eso.org/sci/facilities/alma/arc.html

European ARC nodes



EUROPEAN ARC
ALMA Regional Centre

