# ALMA User Support

"Don't Panic!" (Douglas Adams)



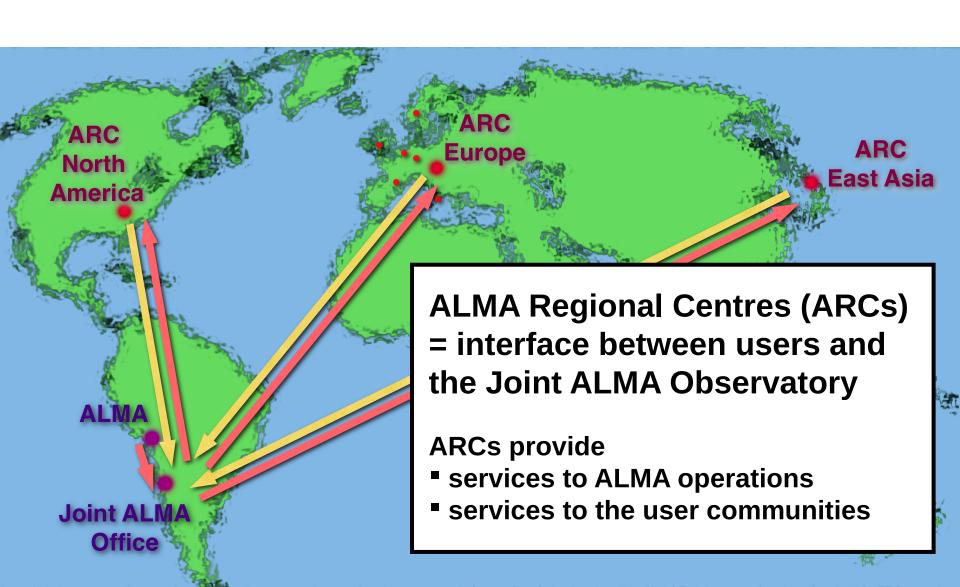


Argelander-Institut für Astronomie

**Stefanie Mühle 05 April 2018** 



#### **ALMA Regional Centres**



#### The European ARC structure



In the EU executive, the ARC consists of a network of regional nodes with a central node at ESO, Garching



## The European ARC structure



# Tasks of the central ARC node include:

- helpdesk
- archive
- software development
- press and public relations

# Tasks of the regional nodes include:

- face-to-face user support
- contact to local scientific community
- community development
- local public outreach
- special expertise areas (EU-ARC wide support)

#### The German ARC node



- University of Bonn (headquarters)
- University of Cologne
- catchment area:
  - Germany (non-MPG)
  - Austria
  - Switzerland







## **Activities: Development**

Short spacings

methods for bolometer + ALMA data; GUI interface, diagnostic plots

VLBI with ALMA

ALMA Upgrade Study, tools & guidelines

Cologne Database for Molecular Spectroscopy

Maintenance/extension of the CDMS, VO compliant (J.Mol.Spectrosc.)

XCLASS

implementation of XCLASS into CASA, adapted for GPUs, tutorials

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#### **Activities: ALMA services**

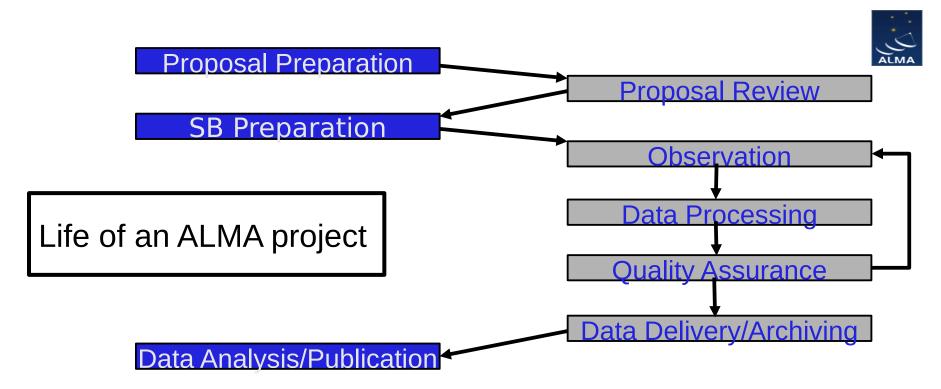
#### Many activities behind the scenes, including

- definition of data reduction strategies
- special campaigns, e.g. calibrator surveys
- software tests, e.g. ALMA-OT
- documentation and documentation review
- staff training
- data quality assessment
- ALMA user feedback



#### **Activities: User support I**

- help with proposal preparation
- phase 2 support for all D-A-CH and some MPG projects
- data reduction and analysis help
- advice in areas of special expertise



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## **Activities: User support II**

- community events and training:
  - ALMA info booth at annual meeting of German Astronomical Society, Göttingen, 18 -22 September 2017
  - Master course "Radio Astronomy: Tools, Applications and Impacts" (lecture + tutorial), 10 Oct. 2017 – 01 Feb. 2018
  - Remote proposal training, Bonn, 15 March 10 April 2018
  - German ALMA Community Day, Bonn, 05 April 2018
  - Master course "Radio Interferometry: Methods and Science" (lecture + CASA tutorial), 11 April – 18 July 2018
- newsletter, newsflashes and webpages
- ALMA talks and posters at seminars and conferences
- public outreach: talks, teachers' education, radio feature, ...
- infrastructure: 2 compute servers, SSDs, RAID storage

# User support tools:



#### **Science Portal at ESO**

news section, newsletter,
announcements

ALMA documents, video tutorials

CASA data reduction guides

ALMA Science Verification data

ALMA archive

Helpdesk (Knowledgebase, Tickets)

special meetings

#### **German ARC node**

newsletter and newsflashes
home page
course Radio Interferometry (incl. CASA)
special tools, e.g. XCLASS
ARC node staff/your Contact Scientist
face-to-face visit (arrange via helpdesk)
German ALMA Comm/Users' Meetings

#### **User support tools: News**



The German ARC node:

German ALMA Regional Center (ARC) Node

Home

About us

Visiting us

Contact

ARC staff

Newsletter

NEW Cycle 6 Pro Preparation Sup and Community 2018

First guidelines mmVLBI with Al Cycle 6

Phase 2 Quickstar (Cycle 5)

additional Phase information

guidelines for mm ALMA in Cycle 5

other Cycle 5 documentation

Radio Interferom Course 2017

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Host institutes: University of Bonn **News channels:** 

- Science Portal at ESO/news section (web)
- EU ARC announcements (web, RSS feed)
- EU ARC newsletter (email)
- Home page of the German ARC node (web)
- DARC newsletter + newsflashes (email)

=> see http://www.astro.uni-bonn.de/ARC for an overview

make up the European Alma Regional Centre Network. With their very short turn around time, they complement the regularly published newsletters. The European ARC Announcements can be found here

- The European ARC Newsletter is a compilation of recent European ALMA Regional Centre Announcement items. In addition, the Newsletter
  informs you about various developments in the ALMA Programme, as well as about ALMA or ALMA-related meetings. More information on the
  newsletter can be found <a href="https://example.com/here">here</a>. To start receiving the European ARC Newsletter, please <a href="mailto:send an email to the Editor">send an email to the Editor</a>.
- In addition, the DARC newsletter features announcements and news particularly relevant to the German ALMA community. If interested,

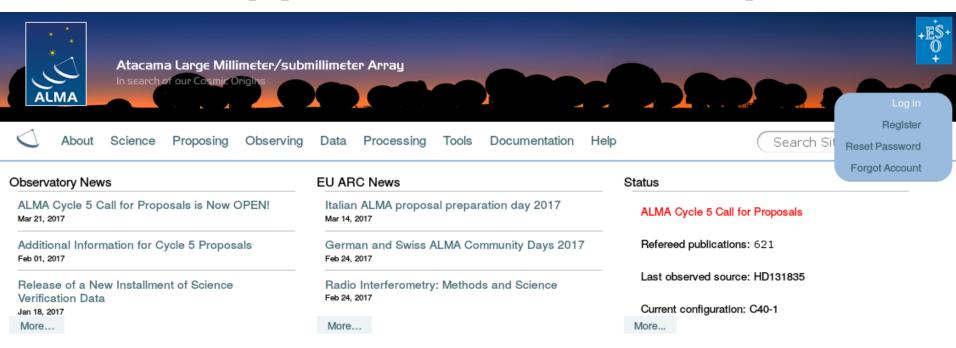




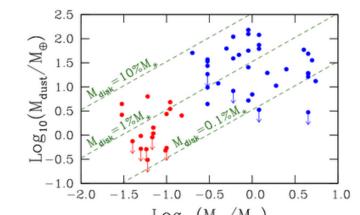


The European ARC:

University of Cologne



#### Science Highlights - Possible Disk Truncation in Ophiuchus Brown Dwarfs

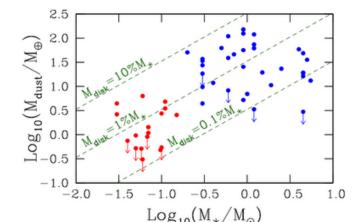


The sensitivity, resolution and the wavelength coverage of ALMA makes it an ideal tool for studying the properties of the cold outer disks of young stars and low mass objects. Such observations can aid us in understanding the formation of their central objects and their likelihood of ultimately hosting planets. In a recent Astronomy & Astrophysics paper, Dr. Testi and his collaborators made use of ALMA Band 7 to observe an unbiased sample of spectroscopically confirmed Ophiuchus brown dwarfs with infrared excesses.

Full Summary...



#### Science Highlights - Possible Disk Truncation in Ophiuchus Brown Dwarfs

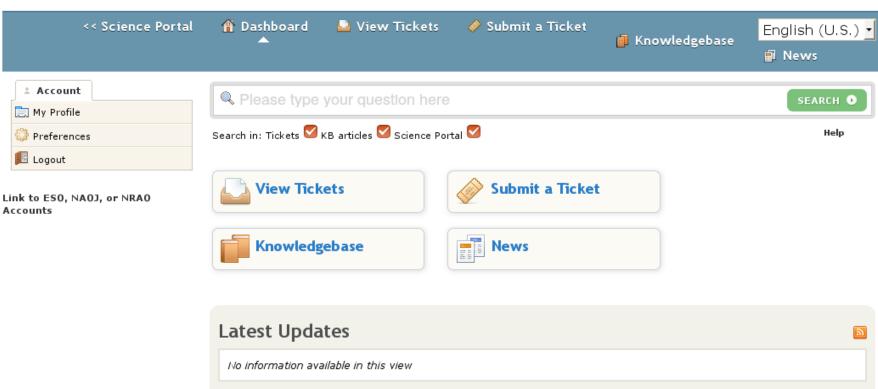


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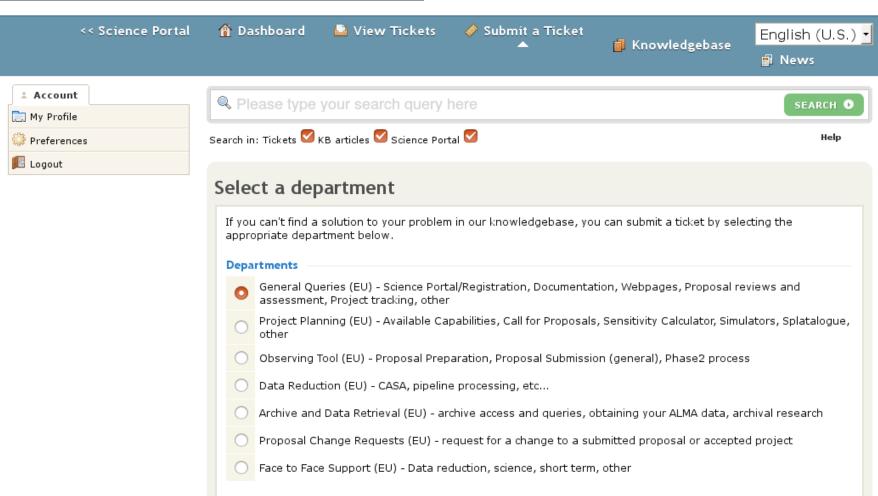












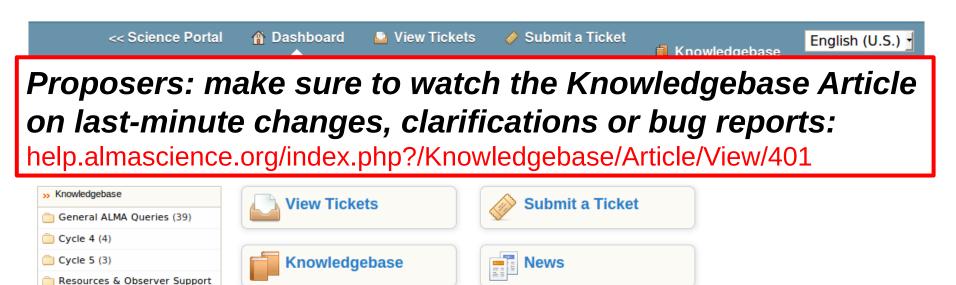
#### **Advantages of the helpdesk:**

up-to-date knowledgebase

(14)

Project Planning (37)

- always the right person (via triage)
- fast feedback, log for future reference



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## User support tools: f2f support

#### **Face-to-face support at the German ARC node:**

- Request for f2f support via helpdesk (f2f department)
  - Logistical details
  - MARCUs funds?
  - Data delegation





- Stay at the German ARC node (with dedicated contact scientist, computing infrastructure, node facilities)
- Transfer data from Bonn to home institution
- Feedback form

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#### User support tools: Master-level courses

#### "Radio Astronomy: Tools, Applications, and Impacts"

- Master level course (6 CP, Bonn, Cologne)
- October February, Tue ~14:15 15:25, Thu ~15:15 16:25
- Lectures: Basics, Telescopes and Interferometers, Observing, ...
- Exercises: dedicated problem sets
- Remote participation possible (on best efforts basis!)

#### "Radio Interferometry: Methods and Science"

- Master level course (4 CP, Bonn, Cologne)
- April July, Wed 10:15 12:45
- Lectures: Introduction, data reduction and analysis
- Exercises: CASA tutorial data reduction and analysis
- Remote participation possible (on best efforts basis!)

#### **Useful Links:**

ALMA Science Portal at ESO:

https://almascience.eso.org

Helpdesk:

https://help.almascience.org

German ARC node:

https://www.astro.uni-bonn.de/ARC/





