

REPORT ON THE RADIONET3 NETWORKING ACTIVITY

TITLE: GERMAN ALMA COMMUNITY DAYS – PROPOSAL WORKSHOP 2015

DATE: *25-27 MARCH 2015* **TIME:** (WHOLE DAY)

LOCATION: *BONN, GERMANY*

MEETING WEBPAGE <http://www.astro.uni-bonn.de/ARC/alma2015.shtml>

HOST INSTITUTE: *ARGELANDER-INSTITUT FÜR ASTRONOMIE*

PARTICIPANTS NO: *50 – 37 SIGNATURES ONLY*

MAIN LEADER: *ESO*

REPORT:

1. Programme of the meeting

Wednesday, 25th March

Session 0: Brief introduction to radio interferometry

14:30 - 15:00	<i>Registration, Coffee & Tea</i>
15:00 - 18:00	Introduction to the basic concepts and terminology of radio interferometry (for non-radio astronomers) - <i>S. Burkutean, A. Sanchez-Monge, T. Badescu</i>

Thursday, 26th March

Session 1: Early Science with ALMA

09:30 - 10:00	<i>Registration, Coffee & Tea</i>
10:00 - 10:10	Welcome and Logistics - <i>F. Bertoldi, S. Mühle</i>
10:10 - 10:40	The Atacama Large Millimeter/Submillimeter Array - <i>S. Randall</i>
10:40 - 11:00	Exploring Molecular Complexity with ALMA (EMoCA) - <i>A. Belloche</i>
11:00 - 11:20	AGN Feedback in Action: The Molecular Outflow in the Circinus Galaxy - <i>L. Zschaechner</i>
11:20 - 11:40	<i>Coffee and Tea</i>
11:40 - 12:00	Molecular gas and cosmic star formation history in the ALMA era - <i>R. Decarli</i>
12:00 - 12:20	ALMA observations of Strongly Lensed Dusty Star Forming Galaxies selected from the South Pole Telescope survey - <i>M. Strandet</i>
12:20 - 12:40	Massive Galaxy Formation with ALMA: Towards resolving interstellar dynamics within 1.5Gyr after the Big Bang - <i>A. Karim</i>
12:40 - 13:00	ALMA observations of $z > 6.5$ quasar hosts: the ISM in forming massive galaxies - <i>B. Venemans</i>
13:00 - 14:00	<i>Lunch (in the lobby)</i>

Session 2: ALMA in Cycle 3

14:00 - 14:20	The life of an ALMA project: from a proposal to delivered data - <i>R. Schaaf</i>
14:20 - 14:40	Getting help: support for (prospective) ALMA users - <i>S. Mühle</i>
14:40 - 15:10	Introduction to CASA - <i>A. Karim</i>
15:10 - 15:40	<i>Coffee and Tea</i>
15:40 - 16:00	ALMA in Cycle 3 - <i>A. Biggs</i>
16:00 - 16:20	Simulating ALMA observations - <i>S. Burkutean</i>
16:20 - 16:40	Spectral line identification and modeling - <i>T. Möller</i>
16:40 - 16:50	Discussion and wrap-up

Friday, 27th March

Session 3: ALMA-OT workshops

10:00 - 13:00	ALMA-OT tutorials: (A) beginners' level (room 0.008) and (B) advanced level
13:00 - 14:00	<i>Lunch (in the lobby)</i>

Session 4: Proposal clinic

14:00 - 17:00	Proposal Clinic: one-on-one help with ALMA draft proposals
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2. Scientific Summary

With construction and basic commissioning of the Atacama Large Millimeter/submillimeter Array (ALMA) drawing to a close, the Joint ALMA Observatory (JAO) issued a Call for Proposals for Cycle 3 on 24 March 2015. The deadline was set to 23 April 2015, with observations foreseen to start in October 2015. For a review of the science done with ALMA so far and to prepare the local astronomical community for Cycle 3, the German ARC node organized the German ALMA Community Days & Proposal Workshop 2015 at the Argelander-Institut für Astronomie in Bonn on 25-27 March 2015. The first day featured a brief introduction to the basic radio astronomical concepts and terminology for non-radio astronomers. On the second day, several talks highlighted recent scientific results obtained with ALMA, before ALMA's capabilities in Cycle 3, ALMA procedures, ALMA tools and the available help were presented. The third day was dedicated to hands-on work in workshops for novice users as well as for advanced users. During these workshops, the participants could start to prepare their own ALMA proposals with technical support from experts. The meeting also offered an excellent opportunity to network with other users and ALMA support staff.

During the introductory session on the first day, staff of the German ARC node explained the basic concepts of radio interferometry, discussed the spatial and spectral setup of ALMA observations and presented the model that the ALMA-OT sensitivity calculator is based on. On the second day, the six talks on ALMA Early Science results covered a broad range of topics, from the study of complex molecules to exciting results from galaxies at high redshifts. This section of the programme showed how ALMA can help scientific progress in a wide variety of research areas and may have inspired new ideas for ALMA projects among the audience. In the afternoon, the description of ALMA's capabilities in Cycle 3, ALMA procedures and the support infrastructure offered a lot of practical information for prospective ALMA users. In addition, various software tools for ALMA users, some developed by the German ARC node, were presented. On the third day, the participants split into two groups, depending on their proficiency with the ALMA-OT, the software needed to prepare and submit ALMA proposals. The beginners' group listened to an introduction to the ALMA-OT and then, outfitted with new knowledge and ideas, worked on creating draft proposals in their own field of research under the guidance of the tutors. More advanced users of the ALMA-OT were presented with an overview of the new features of the latest version of the ALMA-OT, before they tried their hands at this version with the assistance of ARC experts. The proposal clinic held in the afternoon allowed the participants to (continue to) work on their own ALMA proposals with the help of knowledgeable ARC staff.

The German ALMA Community Days were very well attended, despite a similar event held at ESO, Garching, only three weeks later. In addition to the 50 registered participants, many astronomers from the host institute and the nearby Max-Planck-Institut für Radioastronomie attended the talks on the second day without prior registration. The demand for the ALMA-OT tutorials was significantly lower than in previous years, probably due to the fact that many astronomers are familiar with the ALMA-OT by now. Participants included all stages of scientific careers from students to professors, with the majority being young postdocs, students and senior postdocs, the main target group for this event. Most participants were affiliated with the nearby major centres for radio astronomy in Germany, the Max-Planck-Institut für Radioastronomie (MPIfR), the Max-Planck-Institut für Astronomie (MPIA), the Argelander-Institut für Astronomie (AlfA) and the I. Physikalisches Institut of the Universität zu Köln, although there were also a number of participants from other German and international institutes. More than one third (38%) of the participants were female. In total, seven presentations were given by women and eleven presentations by men, with (almost) perfect gender balance reached in Session 1 (Early Science with ALMA) and Session 3 (ALMA-OT workshops).

3. Attendance list (incl. participant names, affiliation and country) signed by the participants and confirmed by the organizer

About one third of this year's participants also attended the German ALMA Community Days in previous years. The new introductory session was very well attended by students and astronomers from other research areas, thus fully reaching the intended audience. The feedback from the participants was unequivocally positive towards this new session. Like in previous years, the presentations attracted a large audience as well, and according to our feedback survey, the programme was considered a good balance of practical information and scientific content. The total number of participants in the tutorials was lower compared to previous years, while the fraction of participants in the advanced level compared to the beginner's level was higher. This indicates that the tutorials of the previous years were successful in that more and more astronomers are now familiar with the ALMA-OT and didn't feel the need to repeat the tutorial. At the end of the event, the majority of participants who hadn't submitted an ALMA proposal before, planned to submit a proposal in time for the Cycle 3 deadline. In summary, we conclude that the German ALMA Community Days and the Proposal Workshop continue to be well received in the German community and serve their purpose.

4. Financial Report / RadioNet3 contribution

The RadioNet3 funding of 1300 EUR was used for local logistics.

5. Conference Proceedings and Web page

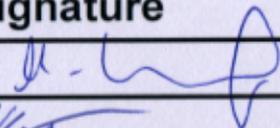
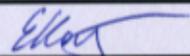
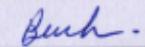
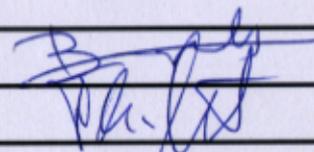
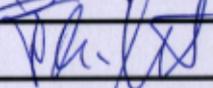
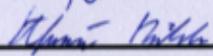
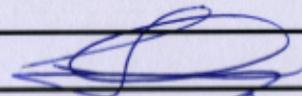
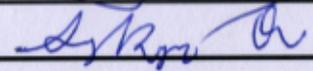
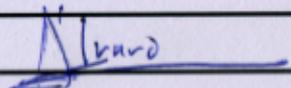
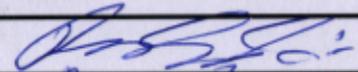
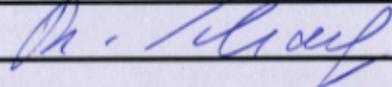
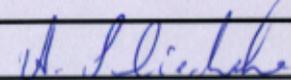
Further information regarding this meeting can be found at

<https://www.astro.uni-bonn.de/ARC/alma2015.shtml>

Given the confidential nature of some scientific talks and the extensive public documentation covering the topics of the technical talks, conference proceedings are not foreseen. Instead, subject to the consent by the individual speaker, the slides of the presentations have been made available for download at

<https://www.astro.uni-bonn.de/ARC/almaprogram2015.shtml>

Many early science results can also be found in papers and preprints (see <http://telbib.eso.org> with Instrument = ALMA-Bands for an overview) and in press releases (<http://www.eso.org/public/>). Extensive documentation on ALMA, the ALMA support structure, the different stages of an ALMA project and the current call for proposals is available at <https://almascience.eso.org/proposing/call-for-proposals>. Further information on the German ARC node and its software tools can be found at <https://www.astro.uni-bonn.de/ARC/>. The software used during the ALMA-OT workshops and the proposal clinic on March 27 can be started (Webstart) and/or downloaded (Tarball) at <https://almascience.eso.org/proposing/observing-tool>.

Participant		Affiliation	Signature
Kierdorf	Maja	MPIfR	
Kokoulina	Elena	Universität zu Köln	
Kramer	Busaba	MPIfR	
Lu	Rusen	MPIfR	
Magnelli	Benjamin	AlfA, German ARC node	
Möller	Thomas	I. Phys. Inst. Uni Köln, German ARC node	
Mühle	Stefanie	AlfA, German ARC node	
Müller	Holger	I. Phys. Inst. Uni Köln, German ARC node	
Navarete	Felipe	MPIfR	
Oh	Seungkyung	Universität Bonn	
Pillai	Thushara	MPIfR	
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Rani	Bindu	MPIfR	
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Sarkar	Emranul	Universität Bonn	
Savolainen	Tuomas	MPIfR	
Schaaf	Reinhold	AlfA, German ARC node	
Schilke	Peter	I. Phys. Inst. Uni Köln, German ARC node	
Schmiedeke	Anika	I. Physikalisches Institut Uni Köln	

Participant		Affiliation	Signature
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Semenov	Dmitry	MPIA	
Strandet	Maria	MPIfR	Maria Strandet
Suri	Sümeyye	Universität zu Köln	Suri
Tewes	Malte	AlfA	Malte Tewes
Trevino Morales	Sandra Patricia	IRAM-Spain	Sandra P. Trevino M.
Venemans	Bram	MPIA	Bram
Wong	Ka Tat	MPIfR	
Zacharias	Michael	Landessternwarte Heidelberg	M. Zacharias
Zhang	Chuanpeng	MPIfR	Chuan Peng Zhang
Zschaechner	Laura	MPIA	Laura Zschaechner