

Call for Proposals on IRAM Telescopes

The deadline for submission of observing proposals on IRAM telescopes, both the NOEMA interferometer and the 30-meter telescope, covering the scheduling period 1 December 2016 to 31 May 2017, is

15 September 2016, 17:00 CEST (UT + 2 hours)
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IRAM proposals should be submitted through the *Proposal Management System* (PMS) at URL:

<http://pms.iram.fr/>

PMS provides on-screen instructions to guide the proposal editor through the submission process. The procedure consists in filling in an on-line form with the details of the requested observations (source coordinates, receiver setups, array configuration, etc.), and to upload a single file in pdf format containing the scientific and technical justification. A L^AT_EX template is provided from the PMS submission page for your convenience. You may customize this file, or generate the pdf file with another software, but in any case **proposers should respect the following requirements**: (1) A normal proposal may contain up to two pages of text describing the scientific aims (4 pages for a Large Program, see below) (2) you may add up to two pages of figures, tables, and references (but don't mix text with figures, tables, and references!), and (3) the font size must be 11pt or larger.

For a proposal to be complete, PMS requires that all authors validate their identity (e-mail and affiliation) and their participation to the proposal before the deadline. The editor of the proposal will have to send invitations to all authors through PMS by clicking an *invitation* button. We urge proposal editors to invite the authors through PMS well before the deadline to give them enough time to validate their identity before the deadline. Authors that fail to validate their participation will automatically be dropped from the proposal.

PMS will be opened for submission of new proposals about three weeks before the deadline¹. Proposers may modify their proposals in PMS until the deadline, in which case the *submit* button must be activated again after modification of the proposal. Please avoid last minute submissions when the network could be congested. If you experience any difficulty with the submission process in PMS, please contact us at pms-feedback@iram.fr for help. You may also use this e-mail address for bug reports, general questions and comments.

Detailed information on time estimates, special observing modes, technical information and references for both the NOEMA interferometer and the 30m telescope can be found on the IRAM web site, under the `science users` tab:

<http://www.iram-institute.org/>

Proposers are encouraged to use the CDS (*Centre des Données astronomiques de Strasbourg*) to check whether a source has already been observed at the 30m telescope or the interferometer. We recommend to use the *VizieR Catalogue Service* to query² the header data of IRAM observations obtained since September 2009 for the 30m, and ab initio (1990) for PdBI/NOEMA.

We encourage the submission of **Large Observing Programs** that require more than 100 hours of observing time and that address strategic scientific issues, using the 30m telescope with EMIR or HERA. You may consult the **Large Program Policy** on the IRAM web site for further details. **Due to the large investment in technical time necessary in the current extension phase of the NOEMA project, Large Programs will not be accepted for the interferometer under the current Call for Proposals.**

The 30m telescope will be open for 3mm and 1mm VLBI proposals. A one antenna participation of NOEMA in those VLBI runs including ALMA is foreseen on best effort basis only.

¹PMS remains open at all times for submission of Director Discretionary Time proposals.

²search *IRAM* as catalogue name.

Publications resulting from NOEMA or 30m telescope observations should mention this in a footnote “Based on observations carried out under project number XXXYZZ [XXX-YY] with the IRAM NOEMA Interferometer [30m telescope]. IRAM is supported by INSU/CNRS (France), MPG (Germany) and IGN (Spain)”. IRAM welcomes an acknowledgment to the IRAM staff for help provided during the observations and for data reduction.

C. Kramer & J.M. Winters

The 30-meter Telescope

Proposals for three instruments will be considered for the coming semester (1 December 2016 to 31 May 2017):

1. the EMIR receiver offering four bands at 3, 2, 1.3, and 0.9 mm wavelengths in both polarisations, and
2. the 9 pixel dual-polarization heterodyne receiver array, HERA, operating at 1.3 mm wavelength.
3. In addition, a limited amount of time will be available with the NIKA2 camera.

The two heterodyne frontends, EMIR and HERA, can be connected to a suite of narrow- and broad-band (up to 32 GHz) spectrometers with resolutions ranging from 3.3 kHz to 2 MHz. During the winter semester emphasis will be put on observations at the shorter wavelengths but 3 mm proposals are also encouraged, particularly if they are suited for medium or low quality weather backup. As in previous semesters, we will offer several weeks of pooled observations in order to optimize the use of the telescope. Proposers are requested to use the EMIR and HERA time estimators which are available online via the [IRAM 30m webpage](#).

Commissioning of NIKA2 will continue into the winter semester, but a limited amount of time (75 hours) of early and shared risk NIKA2 science observations will be available. Individual proposals should not be longer than 15 hours. Compact sources are preferred. Conservative sensitivities of 20 and 30 mJy sec^{0.5} at 2 mm and at 1 mm, respectively, shall be assumed for the calculation of integration times, together with a factor 2 for overheads. Further instructions on time estimates are given on the NIKA2 homepage. Proposals will be secondary if in conflict with upcoming guaranteed-time programs. Observations will probably be scheduled in early spring 2017, inside a pool. No remote observing will be offered and the user is asked to participate in the data calibration and reduction using non-standard software.

A detailed account of the current observatory capabilities is available in a separate document on the [Call for Proposals](#) and the [30m web pages](#).

What is new?

Testing and commissioning of NIKA2 have progressed well this spring and first very promising results have been published here. For autumn, some changes to the hardware are being foreseen: the 150 GHz array, the dichroic frequency splitter, the lenses, and the cryostat window will be replaced and upgraded. In addition, several of the 20 readout electronics boards will be replaced with the last version. Commissioning will then continue into the winter semester, together with early science observations.

EMIR frequency setups can now be prepared using a new set of commands in `ASTRO\PICO` (GILDAS versions of July 2016 or younger). These take into account the available frequency limits, band combinations, and spectrometers, and plot the covered frequency ranges together with known spectral lines, taking into account source velocities or redshifts. This new functionality is still under development and is likely to be upgraded in the future. Examples are given here, but see also the online help.

C. Kramer

The NOEMA Interferometer

Commissioning of antenna 8 was successfully completed in May. For the upcoming winter semester 2016/2017, eight antennas will therefore be available for regular observing. We encourage proposals that require spectral resolutions of 2 MHz or lower; projects requesting the narrow-band correlator (spectral resolution of 1.25 MHz or better) will be limited to using a 6-antenna subset of the array.

For the winter semester, all NOEMA antennas will be equipped with the new 2SB receivers (temporarily only one side band, LSB or USB, can be used). This upgrade includes receivers for two orthogonal linear polarizations in band 1, 2, and 3. Each of the two polarizations delivers a bandwidth of 7.8 GHz, but only up to 3.6 GHz can be processed by the current correlators. The sky frequency ranges covered are 74.7 GHz to 117.8 GHz for band 1, 128.2 GHz to 179.8 GHz for band 2, and 200.2 to 275.8 GHz for band 3.

The wide-band correlator WideX gives access to two 3.6 GHz wide IF bands simultaneously (one in each polarization) providing a fixed spectral resolution of 1.95 MHz over the full bandwidth for the eight available antennas. The narrow-band correlator accepts two signals of 1 GHz bandwidth that must be selected within the two 3.6 GHz IF bands. Spectral resolutions range from 40 kHz to 2.5 MHz in eight independent spectral units. The narrow-band correlator can process the signals of six antennas.

The new NOEMA correlator *Polyfix* is scheduled to be installed on Plateau de Bure in Spring 2017. The installation and commissioning of Polyfix representing a major milestone in the construction of NOEMA, it is planned to shut down regular science operations toward the end of the winter semester. While this work will not affect the scheduling of the extended A configuration, it is anticipated that the commissioning of the new correlator and of NOEMA antenna 9 will significantly impact the observatory's ability to keep on science observations in the 2nd half of the winter semester.

During the course of the winter semester, we plan to schedule all three configurations of the eight antenna array. A preliminary configuration schedule for the winter period is outlined below. Adjustments to this provisional configuration planning will be made according to commissioning requirements in the frame of NOEMA, proposal pressure, weather conditions, and other contingencies.

Conf	Scheduling Priority Winter 2016/17
C	December
D	December – January
A	January – February
C	February – March
(D)	March – May)

Since the narrow-band correlator can process the signals from 6 antennas only, corresponding subsets of the new 8 antenna configurations will be fed to the narrow-band correlator:

Name	Stations							
8A	W27	W09	E68	E23	E12	N46	N29	N20
8A6	W27	W09	E68	E23	—	N46	N29	—
8C	W23	W20	W05	E23	E16	E04	N20	N13
8C6	—	W20	W05	E23	E16	—	N20	N13
8D	W12	W08	W05	E10	E04	N13	N09	N02
8D6	W12	W08	—	—	E04	N13	N09	N02

Due to the large investment in technical time necessary in the current extension phase of NOEMA, and the rapid increase of the array's capabilities, *Large Programs* will not be accepted for the interferometer under this *Call for Proposals*.

A detailed description of the current NOEMA capabilities and organisational considerations are given in a separate document on the [Call for Proposals](#) pages and on the [NOEMA Documentation web pages](#).

J.M. Winters

Guidelines for Observing Time at the IRAM Facilities

Considering the much increased time requests for the IRAM telescopes over the last few years, taking into account the science operations of ALMA, and considering the substantial new investments of the IRAM partners into upgrading the Plateau de Bure interferometer into NOEMA, the following guidelines for allocation of telescope time have been put in place:

1. In deciding on proposal rankings the Program Committee is requested to take into account the publication record and impact of the proposers with previous IRAM telescope time allocations. The proposers should note in their application whether the same or a similar proposal was or is intended to be submitted to ALMA, in which case a special justification is required why IRAM telescope time is needed.
2. Up to 15% of the available observing time may be invested into projects submitted by PIs affiliated with institutes in non-IRAM partner countries.
3. The fraction of time for Large Programs (a detailed description is given on the IRAM website) can be expanded to a total of about 50% of the scheduled telescope time on either of the IRAM telescopes. In order to ensure proper management of these programs in close interaction with the IRAM observatory, including the provision of suitable archive data products for the general scientific community, only programs led by a PI located in one of the IRAM partner countries will be considered.
4. Once accepted, PIs of Large Programs cannot submit other proposals (as PI) during the active time of the Large Program.

Finally, we inform that the IRAM partners will reserve time for mutually agreed “Observatory Programs” once the NOEMA upgrade is sufficiently advanced.

Data policy

The IRAM data policy is as follows:

- IRAM organizes storage of raw and online calibrated data for the 30m telescope and storage of raw data for PdBI/NOEMA on unlimited time scales.
- Header information of PdBI/NOEMA observations later than 1991 can be found here in the CDS (*Centre de Données astronomiques de Strasbourg*).
- Header information of 30m telescope observations later than 2009 can be found here in the CDS.
- Programs are distinguished between normal programs and large programs. Data from large programs are public in reduced format after an 18 month proprietary period (counting from the end of the last semester of observations) and are accessible through the **IRAM Large Program Archive**.
- Data from normal programs so far had indefinite proprietary time. Following a decision of the IRAM partners in June 2015 the following changes were introduced: Raw data from PdBI/NOEMA or online calibrated data from the 30m telescope of individual normal programs may be provided by IRAM after a three year proprietary period (again counting from the end of the last semester of observations) and depending on Director’s decision. Multiple large scale requests are excluded. This policy applies to future programs and to programs terminated during the winter semester 2013/14 or later. Data from programs finished before this date can be requested after December 2016.

IRAM does not provide support for data reduction of such retrieved data. Referencing of these data should follow the **IRAM Data Publication Policies** and in addition include at least one reference to publications of the PI team, or the program number in case the data have not yet been published. Further practical details will be made available in the course of the current summer semester.

Travel funds for European astronomers

The European RadioNet3 project has come to an end in December 2015. Consequently, no financial support will be available for European astronomers for the winter semester 2016/2017 at the IRAM observatories. Note however that a proposal is currently in the process of being evaluated by the European Commission, as part of the Horizon2020 research framework program, to pursue this successful community-wide initiative.

C. Kramer & R. Neri