European VLBI Network Newsletter
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1. Call for Proposals - Deadline 1 February 2007

The ONLINE PROPOSAL SUBMISSION tool Northstar
is the new tool for ALL PROPOSALS which involve the EVN.

Detailed Call for Proposals

Observing proposals are invited for the EVN, a VLBI network of radio telescopes spread throughout Europe and beyond, operated by an international Consortium of institutes.

The EVN is open to all astronomers. Use of the Network by astronomers not specialised in the VLBI technique is encouraged.

The Joint Institute for VLBI in Europe (JIVE) can provide support and advice on project preparation, scheduling, correlation and analysis.

EVN Observing Sessions in 2007

2007 Session 1 Mar 01 - Mar 22 18/21cm, 6cm, 5cm, 1.3cm
2007 Session 2 May 31 - Jun 20 18/21cm, 6cm, 5cm, S/X (likely observing wavelengths)
2007 Session 3 May 31 - Jun 20 18/21cm, 6cm, 5cm, 7mm (likely observing wavelengths)

Proposals received by 1 February 2007 will be considered for scheduling in Session 2, 2007 or later. Finalisation of the planned observing wavelengths will depend on proposal pressure. Other wavelengths which may be scheduled in 2007 are 90cm, 50cm and 30cm.

Special features for Sessions in 2007

- Proposals at 7 mm are encouraged as this frequency is likely to be available in Session 3/2007.
- Recording at 1 Gb/s (Mark 5A) is now possible for an increasing number of projects. It is planned that this will become soon the standard observing mode for all continuum EVN-only projects.
- MERLIN is now available for joint EVN+MERLIN observations in all sessions, for any EVN wavelengths which MERLIN supports (18/21cm, 6/5cm, 1.3cm). However, limited resources during e-MERLIN construction mean that joint EVN+MERLIN will be scheduled at no more

than two of these bands (usually 18/21cm and 5/6cm) in any one session.

Large projects

Most proposals request 12-48hrs observing time. The EVN Program Committee (PC) also encourages larger projects (>48 hrs); these will be subject to more detailed scrutiny, and the EVN PC may, in some cases, attach conditions on the release of the data.

How to submit

The on-line proposal submission tool Northstar now replaces the old Latex-email way of submission for all EVN proposals. It is therefore also available to submit Global proposals; Northstar Global proposals will be forwarded to NRAO automatically.

To use Northstar, people should register (only for the first proposal submission), complete technical information on-line (equivalent to that previously in the coversheet), and upload a scientific justification in pdf or ps format. The scientific justification should be limited to 2 pages in length. Up to 2 additional pages with diagrams may be included. The deadline for submission is 23:59:59 UTC on 1 Feb 2007.

NorthStar will be opened up for preparation of proposals starting on 18 January 2007. A separate text with more detailed instructions will be distributed over the VLBI exploder, and placed on the usual webpages.

Although in this startup phase the EVN will also accept the old style of submission, the use of this route is likely to be discontinued for EVN proposals in the near future, and EVN proposers should make the switch now. See the detailed Call for Proposals for further information.

Additional information

The detailed Call for Proposals has further information on Global VLBI, EVN+MERLIN and guidelines for proposal submission.

The EVN User Guide describes the network and provides general information on its capabilities.

The EVN Status Table gives current antenna capabilities.

The On-line VLBI catalogue lists sources observed by the EVN and Global VLBI.

2. NorthStar: A Web-based Proposal Tool for the EVN.

This January, the EVN joined a growing number of observatories in adopting a version of the NorthStar proposal tool for submitting proposals to the EVN programme committee. NorthStar is already being used by Westerbork, MERLIN and the JCMT, with Effelsberg and others, including optical/IR telescopes, soon to follow. NorthStar will completely replace the old LaTeX/email system for EVN proposals (and can also be used for Globals) and will be used for the first time for the 1 February 2007 proposal deadline. The tool and accompanying help files can be found at "http://proposal.jive.nl".

NorthStar provides significant improvements for EVN users, the EVN program committee and for operations staff. For EVN users it will provide a simplified interface to provide the information contained on the old coversheet. Also, the large number of observatories who have adopted, or plan to adopt, versions of NorthStar means that users will only have to deal with a

single interface to submit proposals to a number of telescopes.

In addition to the benefits it will bring to EVN users, NorthStar will also store EVN user and proposal information in a secure database, simplifying administration for the EVN PC and for EVN operations. Ultimately NorthStar could form part of a beginning-to-end system that will track all projects from the proposal stage through review, scheduling and archiving to final publication.

To use NorthStar, users must first register. Following registration, NorthStar will email users a password (which can later be changed). Registration is only required once and takes only takes a few minutes. All potential EVN users are encouraged to register early and explore the new tool in advance of the upcoming proposal deadline.

Acknowledgements.
NorthStar has been developed as an activity in the EU-funded RadioNet Synergy project. The overall design and building of the common infrastructure were carried out at, and partly funded by, ASTRON, principally by Hanno Holties, Anton Smit, Bastiaan Verhoef and Rene Vermeulen. Over the last several months, the parts specific to the EVN module have been developed principally by Bauke Kramer (JIVE), Hanno Holties and Anton Smit (ASTRON). The process was guided by an EVN working group headed by Rene Vermeulen (ASTRON); consultations with NRAO took place via Joan Wrobel. Pre-release testing was carried out by many people including the EVN PC and JIVE support staff.

Cormac Reynolds.

3. Changes in Dwingeloo

On February 1 Mike Garrett leaves JIVE to take on the position of General director of ASTRON. Mike started at JIVE in 1996, giving shape to the EVN support and leading the EVN TOG. The success of his directorship over the past 4 years can be measured by the growth of the institute from 20 to almost 40 people. A large fraction of these numbers originate from EC projects like the e-VLBI initiative EXPReS, for which Mike was the coordinator. As the director of ASTRON, Mike will remain close to the focus of the European VLBI Network.

The JIVE board has decided to advertise the position of JIVE director and the advertisement will shortly be distributed widely. In the transition period Huib van Langevelde has accepted the responsibility of interim director. In this function he will take over the various roles Mike Garrett is playing in the EVN, RadioNet and other directing bodies. The JIVE staff is currently redistributing some responsibilities in order to deal with the interim period. On the agenda for the next couple of months are the evaluation of RadioNet and EXPReS and the establishment of a new MOU for JIVE. On behalf of all the EVN and its users, the JIVE board likes to express its support to the JIVE management in these interesting times. We thank Mike in particular for his contributions to JIVE and teh European VLBI Network. We also thank Huib for his willingness to serve as interim director.

On behalf of the JIVE board, Prof. Anton Zensus (chair)

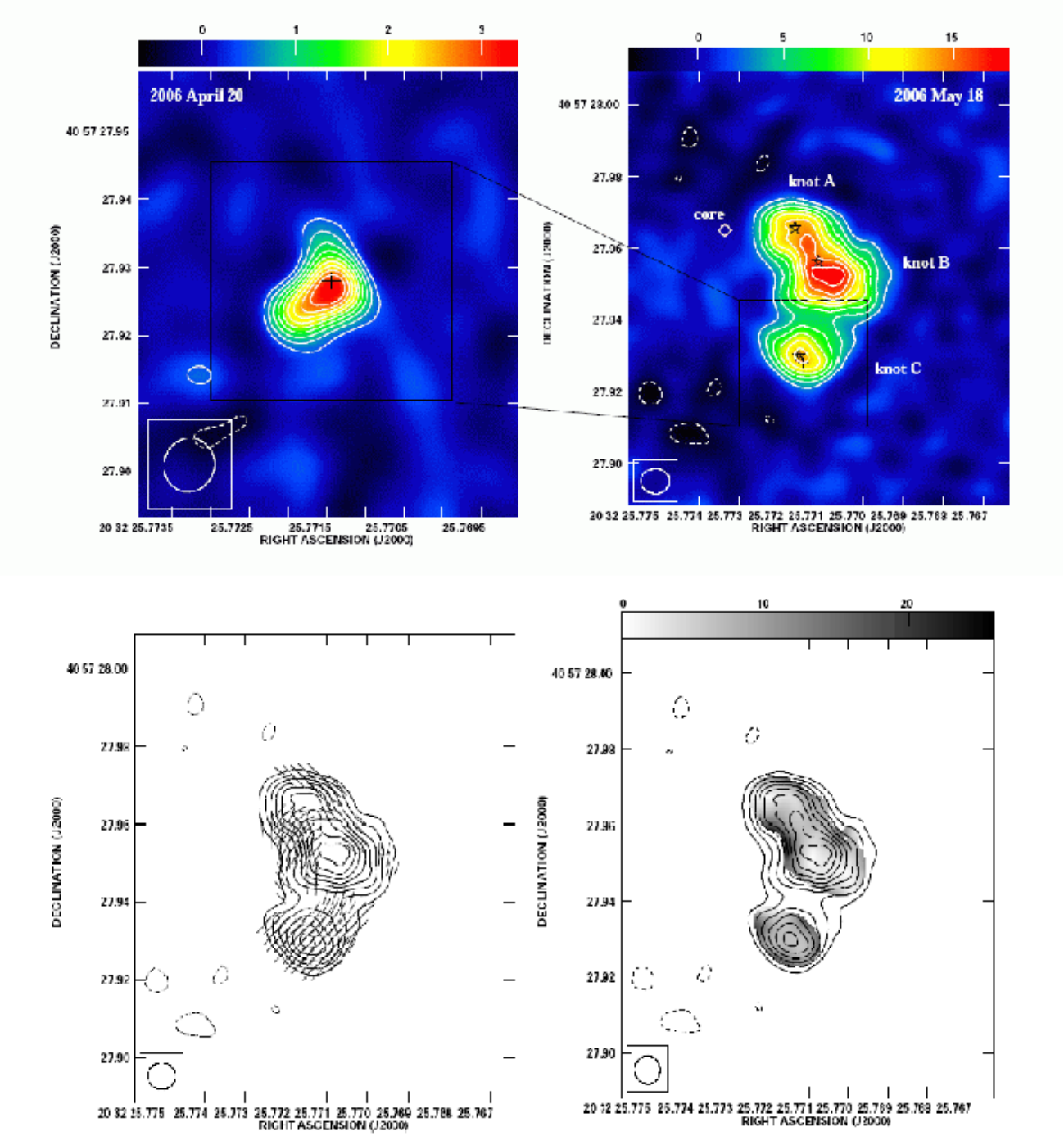
4. e-VLBI Comes of Age: First publications of e-VLBI science papers

The first papers resulting from e-VLBI science observations have been accepted for publication in the Monthly Notices of the Royal Astronomical Society (MNRAS). Other papers have been published as conference proceedings, but this first publication of letters in a refereed journal is a milestone of maturity for e-VLBI. The first paper, "First e-VLBI observations of GRS 1915+105", by Rushton et al., was published in the January 2007 issue of MNRAS. The second paper, "First e-VLBI observations of Cygnus X-3", by Tudose et al., is expected to be published in the February 2007 issue.

The two papers both discuss data taken within the first open call for observations available to the whole scientific community using the six current EVN telescopes: Cambridge (UK), Jodrell Bank MkII (UK), Medicina (Italy), Onsala-20m (Sweden), Torun (Poland) and Westerbork (The Netherlands). Data was sent from each of the participating telescopes at a sustained data rate of 128 Mbps to the EVN correlator at JIVE (The Netherlands).

For more information on the detailed scientific results, see the astrophysics preprint server:

http://arXiv.org/abs/astro-ph/0611054 and http://arXiv.org/abs/astro-ph/0611049.



The Tudose et al. observations captured the X-ray binary system Cygnus X-3, both in quiescence (April 2006) and during a huge, active outburst (May 2006). The total intensity and (the very first VLBI) polarisation images are shown.

Kristine Yun - EXPReS Public Outreach Officer

5. EVN Scheduler's Report from the Last Observing Session and some Waiting Time Statistics

2006 Session 3: 23 - 29 November
Wavelengths: 6cm 3.6cm

This session was later than originally planned, due to delays in the work to replace the subreflector of the Effelsberg telescope. The session was moved to as late in the year as possible, subject to a number of observing constraints (many of the telescopes already had IVS committments). The plan was to schedule just those wavelengths observable using the secondary focus in Effelsberg, since operation from the prime focus would not be possible until January 2007. This included user observations at 1.3cm (1), 3.6cm (1) and 6cm (6).

Unfortunately, problems with the azimuth track at Seshan (Shanghai) meant that it could not participate in the session; in addition the Nanshan (Urumqi) 1.3cm receiver had broken. These further restrictions reduced the session to just two 6cm observations and one 3.6cm observation (a global). The spare time made available was used to schedule a special 24-hour amplitude calibration investigation, lead by D. Graham.

As EVN users know, proposals are judged by the EVN Program Committee about 1 month after the advertized deadlines, and receive either a numerical grade, a rejection, or a recommendation for resubmission. Those with a grade are considered "eligible for scheduling", with a priority indicated by the grade (low number is high priority). The Scheduler's task is to get these scheduled as soon as feasible (unless, of course, the proposer or the EVNPC has stipulated a delay in scheduling for scientific reasons).

The timing of the 3 observing sessions per year allows, in principle, any project to be scheduled within roughly 4 months of submission. Unfortunately, there are many constraints which mean that this is not possible for many projects. The most common are:

A) requested frequency cannot be run in the "next" session. The EVN is not "frequency-agile" and for logistical reasons there is a limit of 4 on the number of frequency bands which can be run in a single session. Which bands are actually scheduled is the result of a mixture of the need to plan some bands in advance because of observatory constraints, and the "proposal pressure" at each band.

B) some key element of the observation may not be available. This is commonly MERLIN (although this reason should disappear in the near future), but sometimes the GBT or Arecibo, since time there is not reserved for the whole session in advance and there may be scheduling conflicts. And of course, there may be crucial EVN telescopes which for some special reason cannot take part, as in the last session.

C) limit of resources for the session. In the past this has frequently been the recording capacity (not enough tapes or TBytes of disk space), but it can also be not enough observing time; sessions last for a maximum of 3 weeks, which includes down time for receiver changes. In fact, this limit most often appears in the form of "GST bunching" where many different projects require the same GST observing slot. This situation leads to rather inefficient filling of the available 24h time periods.

The net result is that eligible projects are often held over until the following session (thus scheduled 8 months after submission) or even longer. There are rules which govern how long a project may remain eligible before is "expires" (or is superceded by a new proposal). Basically, a project is allowed 2 chances to be scheduled in a session where its frequency and telescopes are available, or lasts for one year, whichever is longer. Recently an additional rule was introduced, giving an upper limit of 2 years for any project which would otherwise have survived for longer.

Some statistics covering all proposals submitted since February 2002 (when the present scheduler took over) are presented here. All numbers refer to "observations" rather than proposals, since a single proposal may request several frequencies or epochs.

There were 22 eligible observations (from 17 projects) which expired, after failing to be scheduled due to their low grades (5 EVN-only with grades 1.7-2.0; 17 Global with combined "grade" 1.7-2.25).

Of 206 eligible observations scheduled between June 2002 and March 2007 (excluding 2nd and subsequent observations of monitoring projects) the percentage scheduled after 4 months was 56%, after 8 months 25% and after 1 year 12% - only 7% took longer to be scheduled.

There is obviously variation with requested frequency. For the 6cm band, which is scheduled almost every session, the percentages scheduled after 4, 8 and 12 months are 63%, 21% and 13%. For the 5cm band, the percentages are 48%, 31% and 21%.

Finally, there has been some small improvement in the course of the last 5 years. The percentages for all projects submitted before June 2004 are 50%, 24% and 13% - for those from June 2004 they are 62%, 25% and 11%.

Richard Porcas, EVN Scheduler