



National Centre for Radio Astrophysics

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

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Prof. T. Padmanabhan

Chairman, GMRT Time Allocation Committee

Dean, Core Academic Programmes – IUCAA

Announcement of Opportunity: Cycle 16

(April 15, 2009 – September 15, 2009)

Observations with the

Giant Metrewave Radio Telescope

Khodad, India

Proposal Deadline : Thursday, January 15, 2009

The Giant Metrewave Radio Telescope (GMRT) was built and is operated by the National Centre for Radio Astrophysics of the Tata Institute of Fundamental Research (NCRA-TIFR). It has been in use for astronomical observations since 1999. Starting January 2002, GMRT has been opened for astronomers worldwide.

In the fifteen cycles of GMRT observations so far, time was allotted for a total of about 786 proposals, of which about 49% have PIs affiliated to institutions outside India. The GMRT Time Allocation Committee (GTAC) is constituted by the Director, TIFR and presently consists of Prof. T. Padmanabhan, Chairman of GTAC (Dean, Core Academic Programmes - IUCAA), Prof. T. P. Prabhu, (Indian Institute of Astrophysics), Prof. Dipankar Bhattacharya (IUCAA), Prof. V. K. Kulkarni (NCRA-TIFR) and Prof. S. K. Ghosh (Department of Astronomy & Astrophysics, TIFR).

GMRT operates in two six month long observing cycles per year, starting around **April 15** and **October 15**. Each cycle has approximately five months of scheduled observations and one of maintenance/upgrades. **GTAC invites proposals for Cycle 16, which will start around April 15, 2009. The deadline for receiving proposals for Cycle 16 is 11:59 PM IST on Thursday, January 15, 2009.**

The frequency bands available are 1) 1000-1450 MHz 2) 610 MHz 3) 325 MHz 4) 240 MHz and 5) 150 MHz. More technical details about the usable bandwidths, system parameters and expected performance at these bands can be found in the GMRT status document at <http://www.ncra.tifr.res.in/~gtac>. **From Cycle 16, the new GMRT software back-end (GSB) will be available on an experimental basis.** It will run in parallel with the hardware correlator, and will work for the regular observing modes supported by the latter. Enhanced modes of the GSB will not be available during cycle 16, but are expected to become available in subsequent cycles. More details about new features can be found in the status document. For any further clarifications, please contact Chief Scientist (csgmrt@ncra.tifr.res.in).

Starting with this cycle, we will accept proposals online via the NCRA Archive and Proposal Management System (NAPS), available at <http://naps.ncra.tifr.res.in>. The NAPS provides password authenticated, web browser based interface for proposal submission. Shortly, the same interface will also provide authenticated access to the entire GMRT archive. **Note that the proposal may be submitted only by the PI. All co-Is also need to be registered users of the system.** Using the NAPS interface, co-Is are able to view/print, but not modify, the proposal at any stage. We have

already created NAPS accounts for all PIs and co-Is on proposals submitted to cycle 15. For such individuals, an email will go out shortly giving login and password information. The online interface is closely modeled on the application form of previous cycles, so experienced GMRT users will find the interface familiar. **Nevertheless, we urge those of you who intend to be principal investigators on a Cycle 16 proposal to start using the new system well before the deadline, to become familiar with it. Submission by email, like in previous cycles, will be accepted only in cases where a specific user has a genuine problem with the web interface.** For any problems that you face with the NAPS interface, you may contact proposal@ncra.tifr.res.in for help.

From the large number of projects completed so far, there is clearly ample scope for the GMRT to be effectively used by radio astronomers for appropriately selected projects. First time users are encouraged to spend a few days extra time to become familiar with the recommended observing/editing/calibration procedures. There is a possibility of downtime due to power outages, wind (particularly during May-August), ionospheric activity, RFI etc. There is some limited scope for making up for time lost due to the above. In case of such requirements, users should contact the Chief Scientist (csgmrt@ncra.tifr.res.in) or the Observatory Director (dirncra@ncra.tifr.res.in)

We also suggest that first time users confine their proposals to observations of a few specific sources of interest and acquire first hand experience of the instrumental performance vis-à-vis their scientific requirements, before planning more ambitious proposals. A table showing the number of approved proposals in different "time allotted" bins is given below.

Table : Number of approved proposals in different bins of “time allotted”, upto Cycle 15

No. of hrs allotted	1–20 hrs	21–50 hrs	51– 80 Hrs	81 – 100 hrs	> 100 hrs
No. of proposals	268	339	103	36	5

The GTAC has now decided to accept proposals requiring large amount of observing time (greater than 100 hours). Such proposals will be reviewed in a manner appropriate for each one of them and if necessary the total outlay of time will be split over several cycles. Those who are submitting such large proposals are encouraged to send in supplementary information involving scientific justification etc. by separate email to GTAC.

Proposals will be processed by GTAC with external refereeing as needed and the proposers intimated of the time allocation. GTAC will seek inputs from the GMRT Observatory on technical issues. This call for proposals, the status of GMRT and a set of guidelines for GMRT users can be found at <http://www.ncra.tifr.res.in/~gtac>. After a proposal has been allotted time and scheduled, further queries can be addressed to the Secretary for Operations (secre-ops@ncra.tifr.res.in).

In the event of potential overlap of interests of different proposers, GTAC will try and encourage collaboration or sharing of data by bringing concerned individuals into contact with each other. In this way, we hope to maximize the scientific returns from the GMRT. Requests for allocation of '**Target of Opportunity' (TOO)** time and **Director’s Discretionary Time (DDT)** should also be submitted using the NAPS interface. Whereas TOO time is primarily intended for short lived or time dependent astronomical phenomena, DDT time can be used for system tests, make-up for time lost, short observations extending earlier GTAC approved projects, pilot observations which might lead to future

GTAC proposals etc. Both types of time allocation are, of course, subject to availability & scientific goals.

Data Release: Data from all standard observations with the GMRT will be made available to interested users 18 months after the date of observation. For TOO observations, the corresponding period is 3 months. Pending the availability of online archive access via the NAPS system, requests for archival data should be sent to archive@gmrt.ncra.tifr.res.in

The status and details of all the observations since 2002 can be obtained from <http://www.ncra.tifr.res.in/~gmrtarchive>.

T. Padmanabhan
Chairman
GMRT Time Allocation Committee