

## MWA Call for Proposals – 2020-A semester

11 Dec, 2020.

To: Prospective users of the Murchison Widefield Array (MWA)

From: MWA Director (Professor Melanie Johnston-Hollitt)

This Call for Proposals is for the allocation of up to 1500 hours of observing time in the Guaranteed Time and Open Access categories, during the period April 6, 2020 to October 2, 2020. This observing period is designated 2020-A and is subject to the availability of the array as per the MWA Time Allocation Policy. Note that the array will be in the extended configuration for the duration of this call. Note for planning purposes the array will remain in the extended configuration for 2020-B also covering the remainder of 2020. Please see <http://www.mwatelescope.org/telescope/configurations/phase-ii> for details.

Up to 40 hours of observing with the MWA's Voltage Capture System (VCS, see here: <https://arxiv.org/abs/1501.05992>) will also be available.

Prospective users should review the results of the allocation of observing time for previous MWA observing semesters at: <http://www.mwatelescope.org/data/observing>  
Telescope characteristics and modes are available at: <http://mwatelescope.org/telescope>

### Changes to previous semesters

#### Array Configuration

This year we will be operating the array substantially in the extended configuration, from April 2020 through to the end of the year. Therefore Semester 2020-A will run until October and be entirely in the extended configuration. Semester 2020-B will also be in the extended configuration. This is to meet community demand for access to long baselines over particular LST ranges which have to date been inaccessible.

#### Large Proposals

As of 2018B projects requesting over 500 hours total observing time will be classified as 'Large Proposals', where total time is the total time for the project to be completed, over all semesters. Large Proposals will only be available in Guaranteed Time, for teams which meet the criteria to access this time. As 500 hours is a considerable investment of Phase II time, Large Proposals will need to include an additional section to explain how data will be managed and disseminated across the MWA Collaboration. Proposers are reminded that as per the MWA Data Access Policy, raw data from observations collected under Guaranteed Time is accessible to all Individual Members of the MWA Collaboration immediately. This section can be included in addition to the normal proposal page limit.

### Rapid Trigger Mode

As of 2019B the MWA will have a rapid trigger response to allow transient science. Details of prioritization for multiple triggers will be laid out in the MWA Triggering Policy.

### Interruptibility:

Please note that as a result of the Rapid Trigger Mode all observations have the potential to be interrupted for transient science. Please comment on the interruptibility of any proposed observations.

### **Submission**

Please complete the following proposal template, adhering to the page limits indicated (minimum font size of 12 pt). There are a number of mandatory questions which must be included on the cover page of all proposals. These questions are listed below. Science and technical justifications should now be emailed as a PDF to the MWA Principal Scientist: [scientist@mwatelescope.org](mailto:scientist@mwatelescope.org), as indicated on the form by the deadline: Monday 3rd February 2020, 5pm Australian Western Standard Time (AWST).

## **Part A – Team/summary information**

Title of proposal:

Members of Proposal team (list names, titles and institutions, the PI should be listed first):

Contact Email:

Please list all student investigators:

Area(s) of MWA science (EoR; GEG; Transients; SHI):

Category of time requested (GT or OA):

Total time requested (hrs):

Is this a Large Proposal (>500 hours total time):

Time requested that is commensal with other proposals, if known (hrs). List any known commensal proposals:

Array configuration required: compact, extended or any

List of frequencies requested in this proposal:

List of observing modes requested in this proposal (including the spectral and temporal resolution of the correlator output required, use of Voltage Capture System, Rapid Trigger Mode etc): (note, for the extended configuration Phase II MWA, most observations will need to be executed in 10kHz/0.5s correlator mode. Assume this unless you have been advised otherwise.)

Is this a continuation of a previous proposal (if so, list project #)?:

Please specify how interruptible this program is in the event of an override for transient science (max 100 words):

Abstract (maximum 300 words):

## **Part B – Project Description**

Provide a description of the project (maximum of 3 pages, including figures and references).

Please include:

- A scientific justification for the project;
- Information demonstrating feasibility against the MWA capabilities, in particular describing why the MWA capabilities are essential for the science proposed;
- If this is a continuation of a previous proposal, include progress report (maximum 300 words).

## **Part C – Technical requirements and data management**

Provide a description of the technical requirements for this project (maximum of 2 pages, including figures and references). Please include:

- A statement of the observing time required, broken down against observing mode (drift scan or pointed and tracked, spectral and temporal resolution of correlator output, VoltageCapture System observations), observing frequencies, time of day, time of year, hour angle limits, coordinates or any other relevant parameters;
- A description of any plans your team have to release data or data products into the public domain (particularly for projects requesting in excess of 100 hours of observation time);
- A description of your plans for processing data resulting from this proposal (particularly for projects requesting in excess of 100 hours of observation time).
- If you are submitting a continuation of a previous proposal, provide a detailed description of the results and status of prior efforts.
- If you wish to access the rapid trigger mode for transient sources please comment on the trigger details in the proposal.

## **Part D – Large Proposals Dissemination and Data Management Plan**

For Large Proposals (>500 hours), please provide a description of the way data will be managed and disseminated across the MWA Collaboration (maximum of 1 page, including figures and references). If you are not requesting more than 500 hours of time in total, please disregard this section.