21 July 2023

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

From: MWA Director

Overview

This Call for Proposals is for the allocation of observing time in the Guaranteed Time and Open Access categories, nominally during the period **September 29, 2023 to February 29, 2024**.

This observing period is designated 2023B and is subject to the availability of the array as per the MWA Time Allocation Policy. www.mwatelescope.org/policies

The array will be in the **compact** configuration for the duration of 2023B. wiki.mwatelescope.org/display/MP/Telescope+Configurations

Fringe Stopping and Correlator Modes

Fringe stopping is a process of keeping the correlation pointing centre at a fixed RA/Dec, allowing the use of longer correlator integration times and lower frequency resolutions (depending on the science case), significantly reducing the volume of visibilities produced. Fringe stopping was an opt-in process for 2023A and is the default mode of correlator operation from 2023B onwards. Details of fringe stopping, the MWAX correlator modes, and other technical information relevant to this Call are posted here: wiki.mwatelescope.org/display/MP/MWAX+Fringe+Stopping

wiki.mwatelescope.org/display/MP/MWAX+Correlator+and+VCS wiki.mwatelescope.org/display/MP/MWAX+Modes

Data Retention Policy

Following all proposal submissions for this Call, the MWA Operations Team will calculate the expected amount of data that will be ingested to the MWA data archive. If there is inadequate storage space in the archive to support the requested observations, the MWA Operations Team will work with the MWA Principal Scientist to identify observations for deletion and begin a consultation process with the Collaboration, per the MWA Data Retention Policy and Procedure. <u>www.mwatelescope.org/policies</u>

Semester Hours and Scheduling

The MWA's capacity to observe in Phase III is more greatly limited by the volume of data products, than available time on sky. As a result, there are no particular restrictions on the number of available semester hours, and scheduling priority will be given to the proposals ranked highest by the TAC.

The implementation of fringe stopping and the MWA Data Retention Policy will mitigate the archival impact of large projects to an extent, but PIs that propose to generate significant data volumes (visibility and/or VCS data in any combination) may be asked to provide additional justification and data management planning, in the same manner described by the Large Project Policy for proposals >500 hrs. www.mwatelescope.org/policies

We encourage PIs to calculate the size of their proposed dataset using this tool: ws.mwatelescope.org/data/volcalc/

Rapid Trigger Mode

As of 2019B, the MWA has a rapid trigger response to allow transient science. Details of prioritisation for multiple triggers is laid out in the MWA Time Allocation Policy. <u>www.mwatelescope.org/policies</u>

Observation Interruptions

Because of the Rapid Trigger Mode, all observing proposals must indicate whether they are interruptible (for transient science cases) and what impact, if any, this would have on their science. For more details refer to the MWA Time Allocation Policy. www.mwatelescope.org/policies

Guidelines

Proposers can review the results of the allocation of observing time for previous MWA observing semesters at: wiki.mwatelescope.org/display/MP/Observations

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. <u>www.mwatelescope.org/policies</u>

Before writing a proposal, please refer to the wiki guide on how to complete the technical parts of the form: wiki.mwatelescope.org/display/MP/Writing+a+good+MWA+observing+proposal

If you are unable to access the wiki, please contact the MWA System Admin team: registry admin@mwatelescope.org

Submission

To submit a proposal, please complete the following online form: <u>https://form.jotform.com/230436931661051</u> You can save partially-completed proposals for later submission, or access your previous proposals, by creating a free jotform account.

The deadline for proposal submission is Tuesday 15 August 2023, 5PM AWST (Australian Western Standard Time, UTC+8).

Any questions regarding proposal submission can be directed to the MWA Principal Scientist/s: scientist@mwatelescope.org