

MeerKAT open time call 3 December - Proposal summary

MeerHOGS - The MeerKAT Habitat of Galaxies Survey	
Proposal number 14	Thu Jan 31 2019 05:23:53 GMT+0200 (SAST)
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Abstract:

In this pilot project we propose to survey an area of $\sim 5.2 \text{ deg}^2$ within the GAMA G23 region to investigate i) the dichotomy that exists between optically-defined and mid-infrared-defined active galactic nuclei (AGN) through their radio power, ii) the influence of environment on the H I properties of galaxies (including tidal filaments and intragroup gas) and how this connects to the build up of stellar mass, and iii) the influence of environment on the angular momentum (orientation) of galaxies. Our chosen survey area takes advantage of the high spectroscopic completeness of the GAMA survey, providing superior environmental measures and galaxy group characterisation, and SEDs (spectral energy distribution) spanning the optical (KiDS), infrared (VIKING), mid-infrared (WISE), and far-infrared (Herschel). Although the last two goals of this proposal rely on H I line imaging, and are therefore less suited to 4k observations, this provides an opportunity to test reduction pipelines and establish the predominance of MeerKAT in investigating the low column density universe. That said, this observing mode is highly suitable for providing sensitive radio continuum data to match to the WISE mid-infrared galaxy catalogue created in G23 (PhD project of Marc Harris). Radio measures will help determine the role of AGN-power in mid-infrared-only vs optical-only AGN diagnostics. With continuum data we are also in a position to investigate any environmental dependence of the AGN power of both mid-infrared- and optically-selected AGN.

Observation parameters:

Targets	Name: VV 1957 RA: 22:55:22 Dec:-33:54:22		
Total time	16 in 2 epochs	Dump rate	8 s
Daytime	Nighttime preferred	Variable/Transient	No
Baselines	Full array: should be flagged successful by observatory standards based on number of active antennas.		

List of files uploaded. Files in order of upload. Usually just revising their proposal, so click the last one, but some people attached several different files, so they may all be useful.

<https://drive.google.com/open?id=13W4TsKEbISBXg8WP7cGWqkB87RN7cmS-> .

File comments:

The number of observing epochs can be increased to 8.