

MeerKAT open time call 3 December - Proposal summary

Mapping the starburst galaxy NGC 4945 with MeerKAT-64	
Proposal number 40	Thu Jan 31 2019 13:00:32 GMT+0200 (SAST)
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Abstract:

We propose to observe the nearby starburst galaxy NGC 4945 at 1.4 GHz with MeerKAT-64 (4K mode) using a single pointing. NGC 4945 is among the brightest galaxies on the sky with an extended (~25 arcmin) HI disk oriented edge-on. Our goals are to map the extent and structure of (a) the outer HI disk, (b) the extraplanar HI emission, and (c) the radio continuum emission. Furthermore, we aim to study the HI absorption, which is present over the same velocity range (~400 km/s) as the HI emission against extremely bright and extended continuum emission. Our proposal takes advantage of the high MeerKAT-64 sensitivity and baselines up to 8 km, providing very high angular resolution. The wide channels (44 km/s) in the 4K-mode will also allow a preliminary study of the HI kinematics.

Observation parameters:

Targets	NGC 4945 RA: 13h05m27.4s ; DEC: -49d28m05s		
Total time	15.5 in 5 epochs	Dump rate	8 s
Daytime	Nighttime required	Variable/Transient	No
Baselines	No constraints, 60 antennas active are fine on average		

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=1hOfJ-AlwpYRYIZQAnK9dLni9x0of6Fhd> .

File comments: