MeerKAT open time call 3 December - Proposal summary

Searching for jet ejections in the ULX NGC 5408 X-1	
Proposal number 27	Thu Jan 31 2019 12:49:32 GMT+0200 (SAST)
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Abstract:

Ultraluminous X-ray sources (ULXs) are known to inject copious amounts of energy into their local environment courtesy of mass-loaded winds and strong radiation fields. Holmberg II X-1 (Ho II X-1), is an archetypal ULX showing both of these modes of feedback but also evidence for jet ejections on the timescales of days to weeks. To explore whether this is occurring in other ULXs, we request 8 observations of 2-hours duration roughly spaced by a week with MeerKAT of NGC 5408 X-1. The target is also an archetypal ULX and in many ways is a sister source to Ho II X-1 in the X-rays and also known to have a radio bright nebula. The confirmation of jet ejections occurring on similar timescales in NGC 5408 X-1 would indicate a more widespread phenomenology and potentially reveal the existence of a specific category/population of these sources.

Observation parameters:

Targets	NGC 5408 X-1, Position: RA: 14:03:19.63, Dec: -41:22:58.7			
Total time	16 in 8 epochs		**Dump rate**	8 s
Daytime	No preference	**Variable/Transient**	Variable or Transient	
Baselines	No constraints			

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=1N0QwZMgZVuFPhPyIJTKt6_K7OuA_Jhmx,
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File comments:
The pdf document labelled *_Rev2* must be used as the main body of the proposal. The other document can be discarded.