

MeerKAT open time call 3 December - Proposal summary

Two accreting X-ray binaries in their supernova remnants	
Proposal number 26	Thu Jan 31 2019 09:39:01 GMT+0200 (SAST)
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Abstract:

By the time that the neutron star in a massive X-ray binary begins to accrete material from its companion, evidence of the supernova that formed the neutron star has all but disappeared. Thus it is surprising to find two slowly spinning, accreting neutron stars (SXP 1062 and SXP 1323) apparently still within their natal supernova remnants. In this proposal, we will explore the diffuse radio emission surrounding these two X-ray binaries from both a morphological and a spectral angle. The observations will allow us to characterise the emission mechanism in the diffuse gas, probe the interaction with the interstellar medium and search for radio emission from the neutron stars themselves. As both X-ray binaries are located in the Small Magellanic Cloud (SMC), we will use these observations as a pilot to explore the feasibility of a multi-faceted survey of the SMC, focusing on the stellar and gas content of a galaxy with very different star formation history, morphology and metallicity from the Milky Way

Observation parameters:

Targets	SXP1323 RA=01:03:37.8 Dec=-72:01:33, SXP1062 01:27:46 -73:32:56		
Total time	14 in 1 epochs	Dump rate	8 s
Daytime	No preference	Variable/Transient	No
Baselines	Interleaved observations of both sources to maximise uv coverage.		

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=1F25JdiJoywA2wM8yG136LmBRBMwTxoJF> .

File comments: