

MeerKAT open time call 3 December - Proposal summary

Monitoring gamma-ray binaries with MeerKAT	
Proposal number 44	Thu Jan 31 2019 14:09:37 GMT+0200 (SAST)
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Abstract:

Gamma-ray binaries are true multi-wavelength astrophysical sources, emitting radiation from radio wavelengths to TeV energies. While the first gamma-ray binary was discovered in the 1970s, the nature of these objects remains somewhat of a mystery. This is largely due to the difficulties in isolating the origin of the radio and high energy emission, and tying down the mass of the compact object in these systems. Gamma-ray binaries likely mark a short-lived but important phase in the evolution of massive X-ray binaries – the type of systems which are progenitors of gravitational wave sources.

This project uses the superior sensitivity of MeerKAT to perform an orbital phase resolved study of two gamma-ray binaries: 1FGL J1018.6-5856 and LMC P3. Multiple epochs of near-simultaneous high energy and radio data will allow us to understand the geometry and underlying electron population giving rise to the radio and high energy emission.

Observation parameters:

Targets	1FGL J1018.6-5856 (RA =10:18:55.57 , Dec = -58:56:45.94); LMC P3 (RA = 05:36:00.01, Dec = -67:35:07.5)		
Total time	10 in 24 epochs	Dump rate	8 s
Daytime	No preference	Variable/Transient	Variable or Transient
Baselines	none		

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=1fEOfcMxFUGr0U_vIOCMVqLu_C9f4oOLX .

File comments: