

MeerKAT open time call 3 December - Proposal summary

A galaxy cluster safari with MeerKAT	
Proposal number 11	Thu Jan 31 2019 02:44:33 GMT+0200 (SAST)
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Abstract:

Radio emission in galaxy clusters is a key tracer of the evolution and interaction between the constituent galaxies and the environment. One such example is the Mpc-scale diffuse radio emission generated by merger events. These diffuse structures indicate that mergers re-accelerate relativistic electrons in the Intra Cluster Medium to scales well beyond their expected radiative lifetime. We submit 8 candidates for observation: two of which have previous halo detections, three of which are low redshift candidates with upper bounds established using the KAT-7 array and 3 more from the SPT catalogue. This proposal follows up and completes an early science pilot with the aim to improve observation sensitivity in order to have a homogeneous set of MeerKAT data on a sample of massive clusters. It additionally serves as a pilot for future statistical studies of high mass clusters at higher redshifts.

Observation parameters:

Targets	A 1300 (11h 31m 54.4 s -190 55' 42.0"), RXCJ 1638.2-6420 (Triangulum Australis) (16h 38m 18.3s , -640 21' 07.0"), RXCJ 1631.6-7507 (A3628) (16h 31m 24.0s , -640 21' 07.0"), PSZ1G 018.75+23.5 (17h 02m 22.1 s , -010 00' 16.0"), MACSJ 1931-2635 (19h 31m 49.6 s , -260 34' 34.0"), PSZ2G277.76-51.74 (02h 54m 17.5 s , -580 57' 10.8"), PSZ2G254.08-58.45 (03h 04m 16.8s , -440 01' 51.6"), PSZ2G255.60-46.18 (04h 11m 15.5s , -480 19' 19.2")		
Total time	13 in 1 epochs	Dump rate	8 s
Daytime	Nighttime preferred	Variable/Transient	No
Baselines	Ensure longest possible spacings are included and no less than 85% of the array included		

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=1f7hVJdsCWIHRqh-JxDyP6-VBwWQout2y> .

File comments: