

Spectral study of supernova remnants with MeerKAT

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Characterization of southern Galactic SNRs

The SRAO MeerKAT Galactic Plane survey is a unique tool to characterize a large sample (~200) of Galactic SNRs in the poorly studied southern hemisphere.

Goals of this project:

- reprocess MeerKAT data using INAF facilities to allow spectral analysis
- create, for the first time, arcsec-resolution spectral index maps of a relevant number of SNRs to highlight different spectral regimes
- produce polarization maps (first time for almost all the SNRs in this sample) to study magnetic fields

Completed items

- >>> A visiting program has started with researcher from SRAO to port data reduction pipelines in the Pleiadi@INAF facility
- >>> A pilot study of ~30 SNRs is in its final draft version (Loru et al.), with its submission awaiting for SRAO approval
- >>> Data transfer of the first datasets to Pleiadi is complete, with a real assessment of the SRAO to INAF transfer performances (results have been discussed with the ICT community) and an outlook on the next-future INAF commitment on MeerKAT+ legacy surveys

TO DO list

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- >>> Complete data reduction of the transferred data sets (on going)
- >>> Drafting papers on selected sources of these reprocessed data sets (Ingallinera et al. *in prep.*, source selection is complete, science goals well-defined, awaiting for data reprocessing)