

Single-Dish Radio Imaging of Supernova Remnants: investigating high-energy particle properties

Sara Loru (INAF - OACT)

Supernova remnants at high radio frequencies

High-frequency radio spectrum is a crucial window to constrain the Cosmic Ray by observing a characteristic radio spectral break.

General lack of accurate SNR radio observations above ~10 GHz.

Goals of this project:

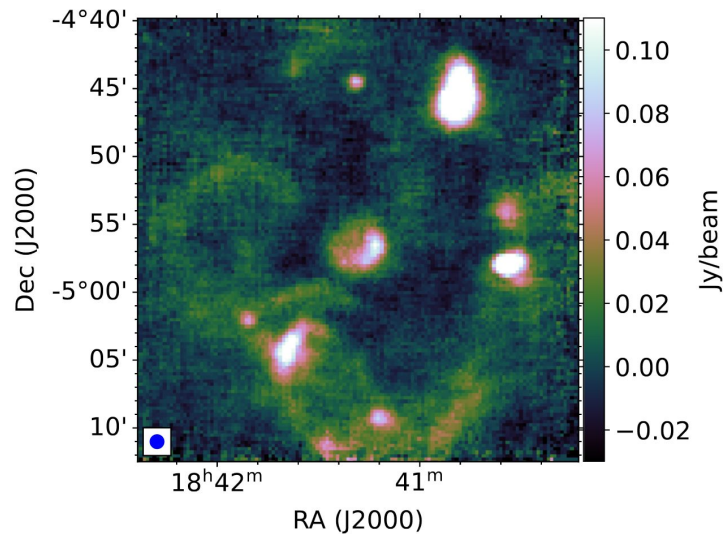
- use SRT observations at 8 and 22 GHz to characterize the SNRs Kes 73, Cas A and G85.4+0.7
- discriminate between the SNR characteristics associated with peculiar environmental conditions and those that can be considered a standard evolutionary behavior

Current status

- >>> All SNRs were observed in both frequencies (project 22-18)
- >>> Data reduction is complete
- >>> Data analysis is complete for KES 73

Work in progress:

- >>> Draft of the paper on KES 73 already distributed to coauthors for comments
- >>> Analysis of the other two remnants ongoing.



Kes 73 at 18.7 GHz (Loru et al. *in prep.*)