

The logo for the Osservatorio Astronomico di Cagliari (OAC), featuring the letters 'OAC' in a bold, blue, sans-serif font.

Osservatorio  
Astronomico  
di Cagliari



**INAF**

ISTITUTO NAZIONALE  
DI ASTROFISICA  
NATIONAL INSTITUTE  
FOR ASTROPHYSICS

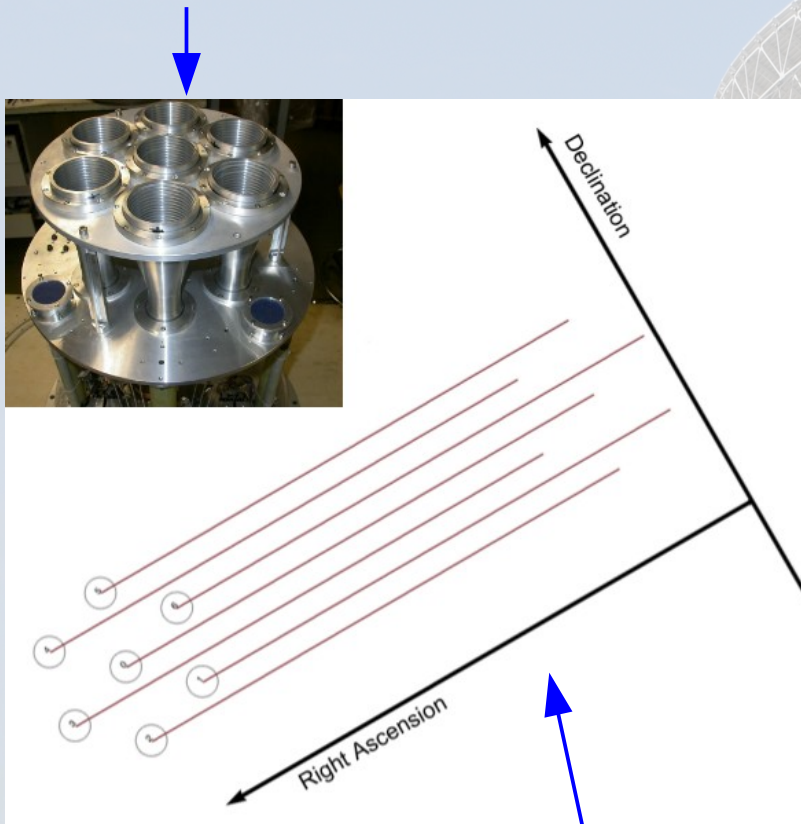
# High-resolution spectral imaging of SNR IC443 and W44 at 22 GHz with the Sardinia Radio Telescope

PhD student: **Sara Loru**

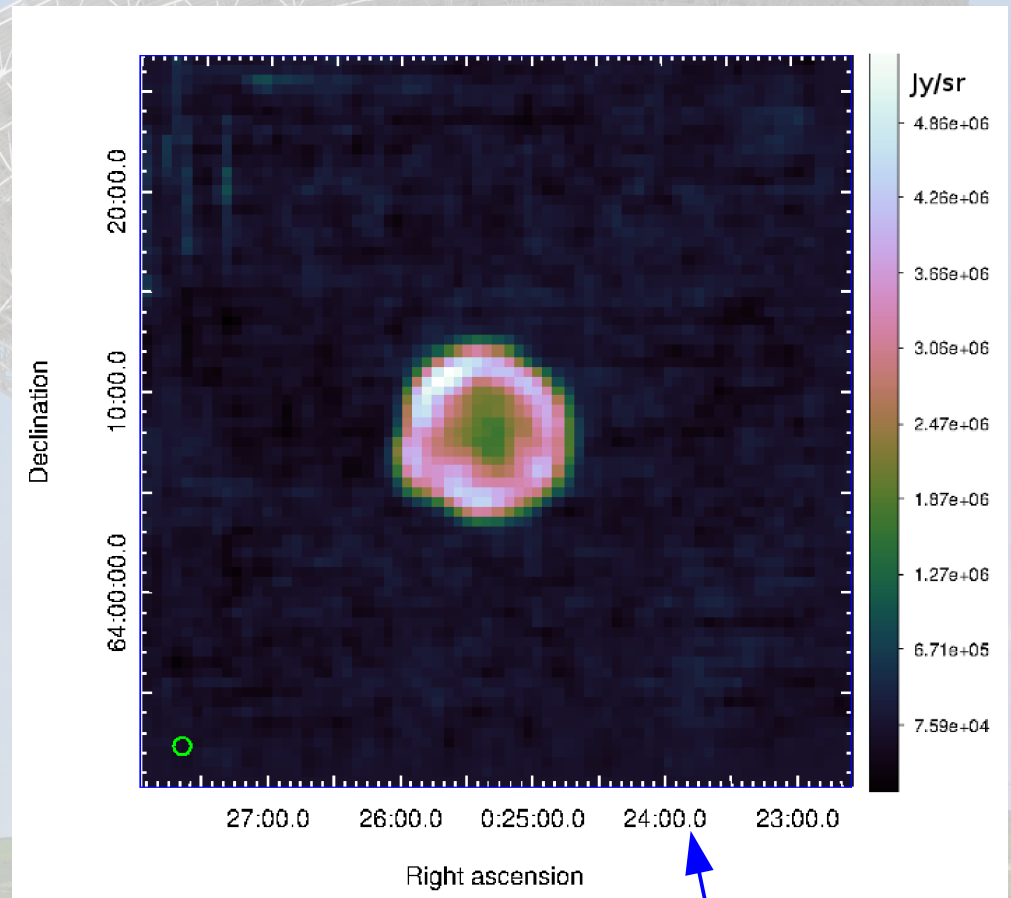
Supervisor: **Alberto Pellizzoni**

# Observations and Data Analysis

- SRT K-band 7-feed receiver (21.4 GHz)



3C10 map



Best Space Coverage configuration

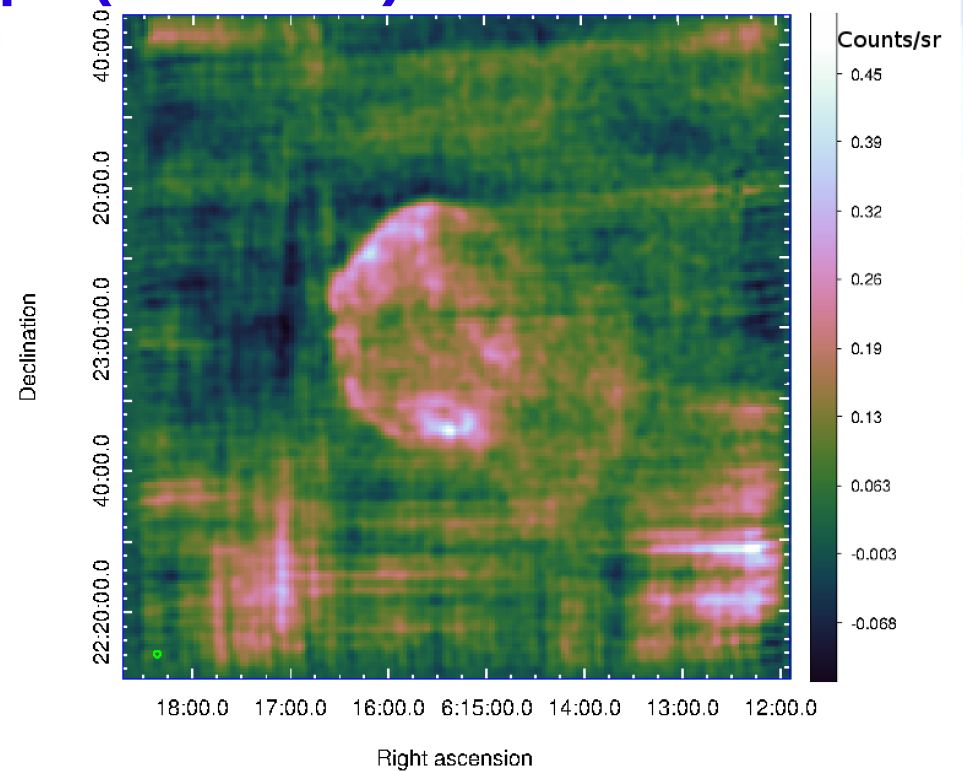
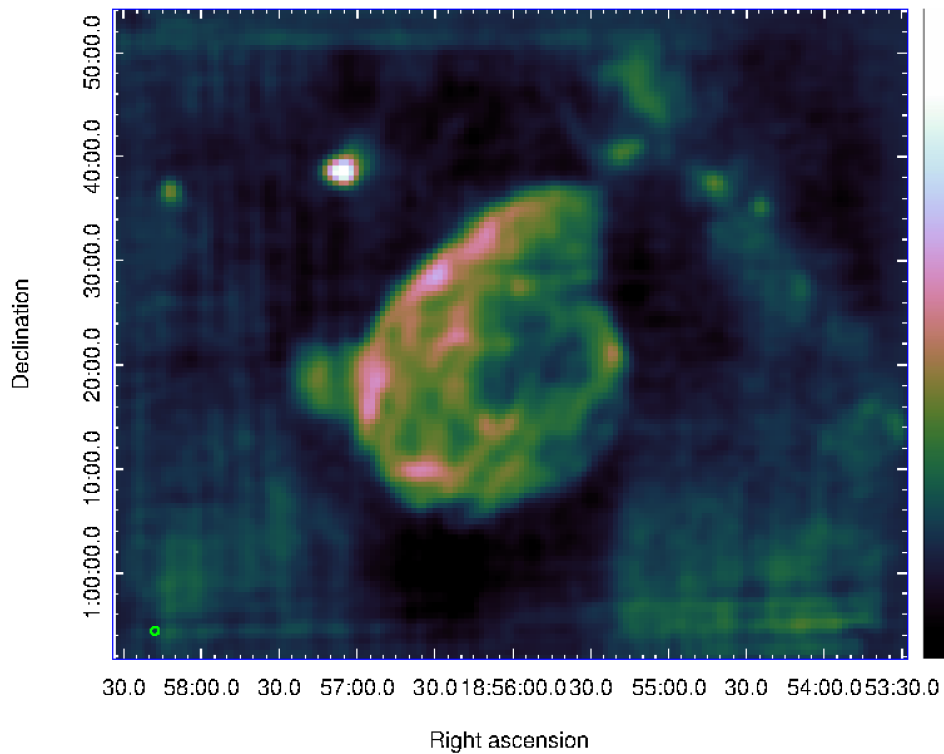
14 scans per beam

22/02/17

Sara Loru

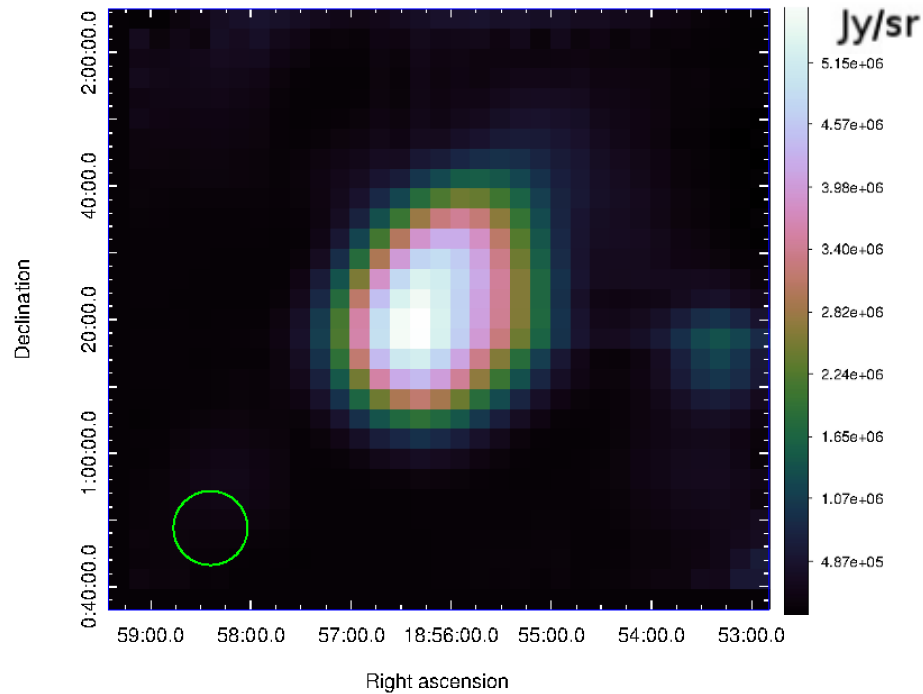
# SRT K-band maps of W44 and IC443

## K-band maps (21.4 GHz)

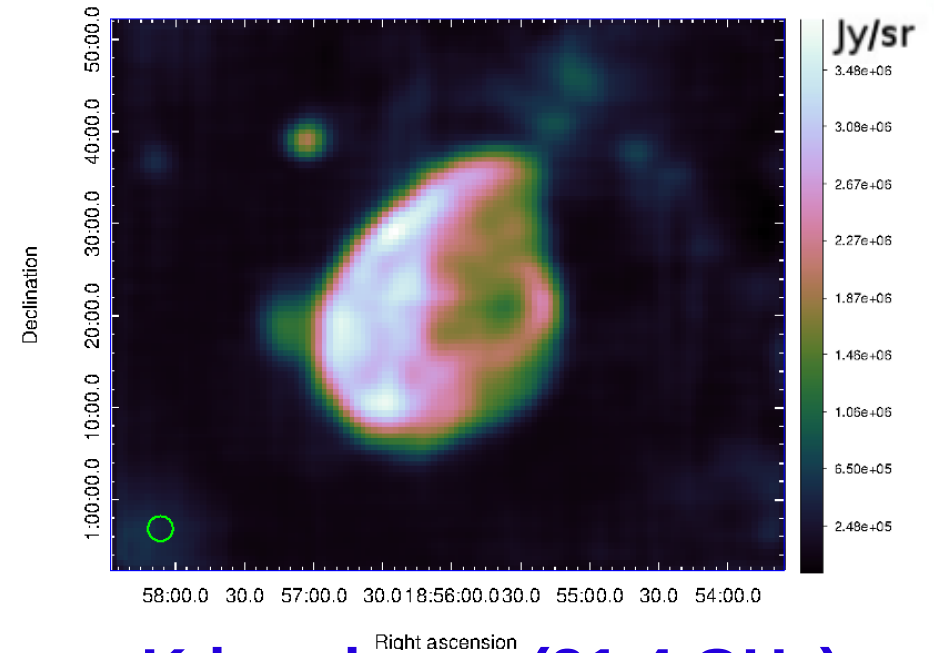


**Beam = 0.87'**

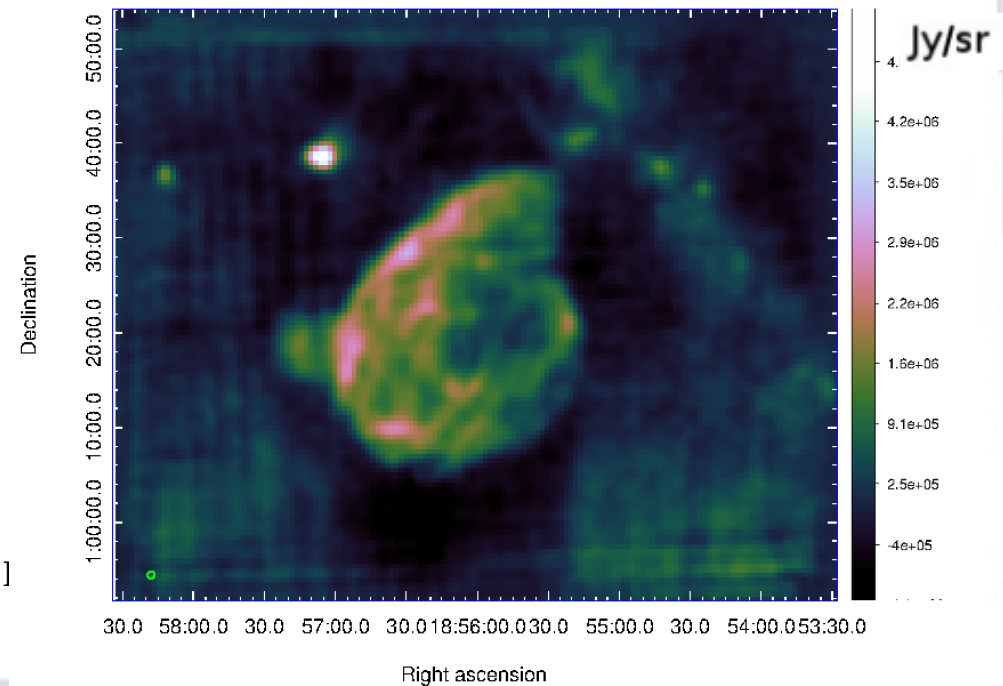
# W44 L-band map (1.5 GHz)



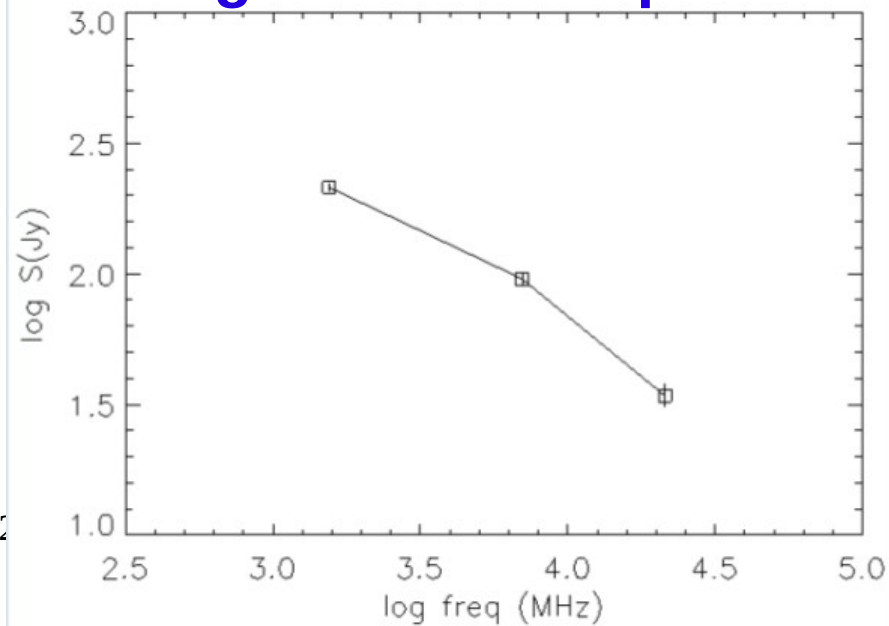
# C-band map (7.0 GHz)



# K-band map (21.4 GHz)

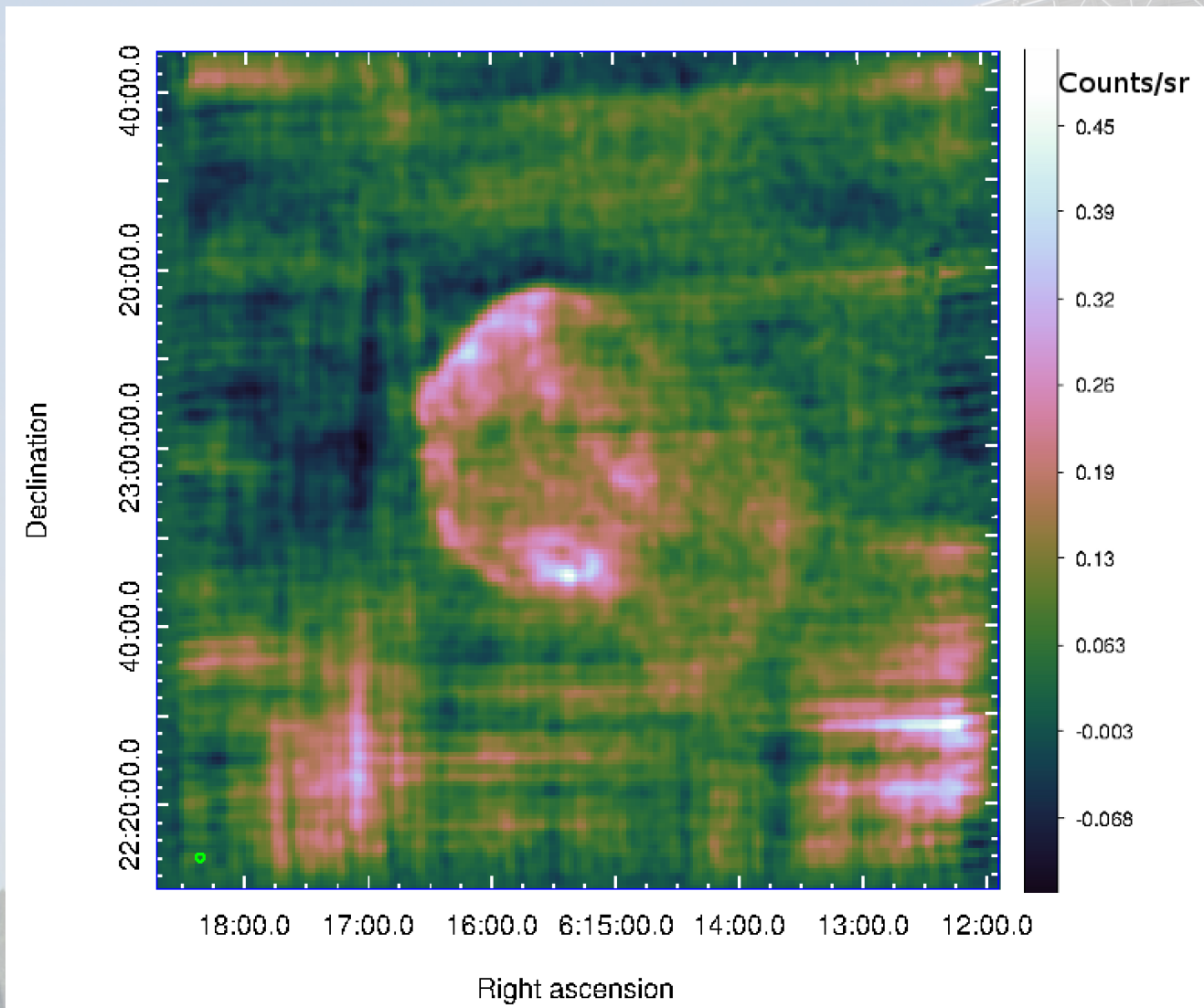


# Integrated radio spectrum



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# Outlook for the future



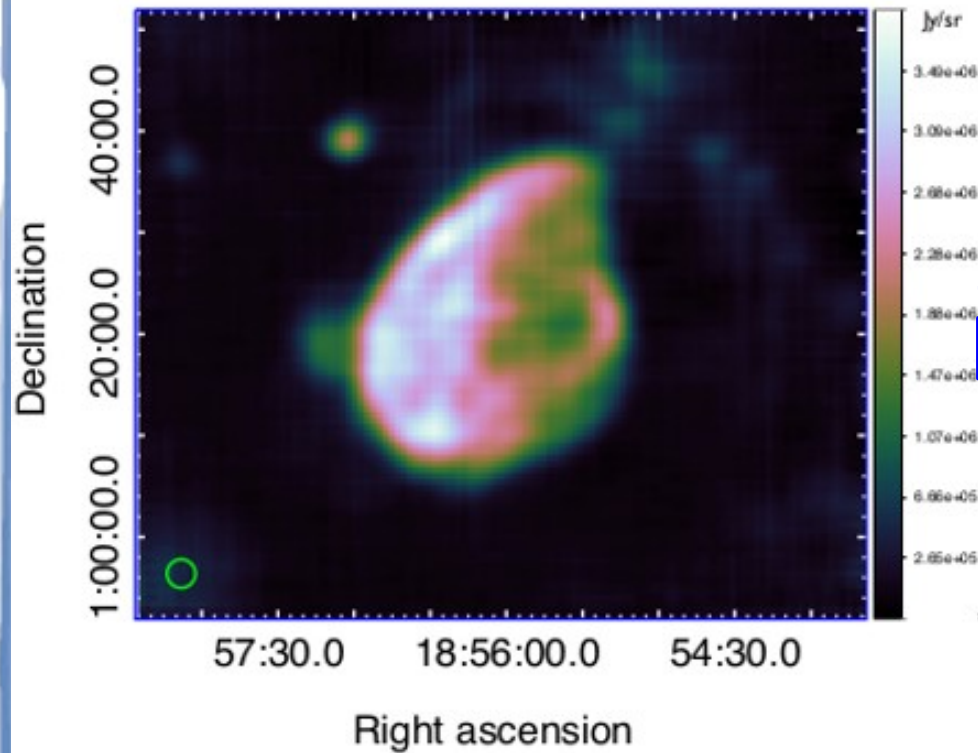
22/02/17

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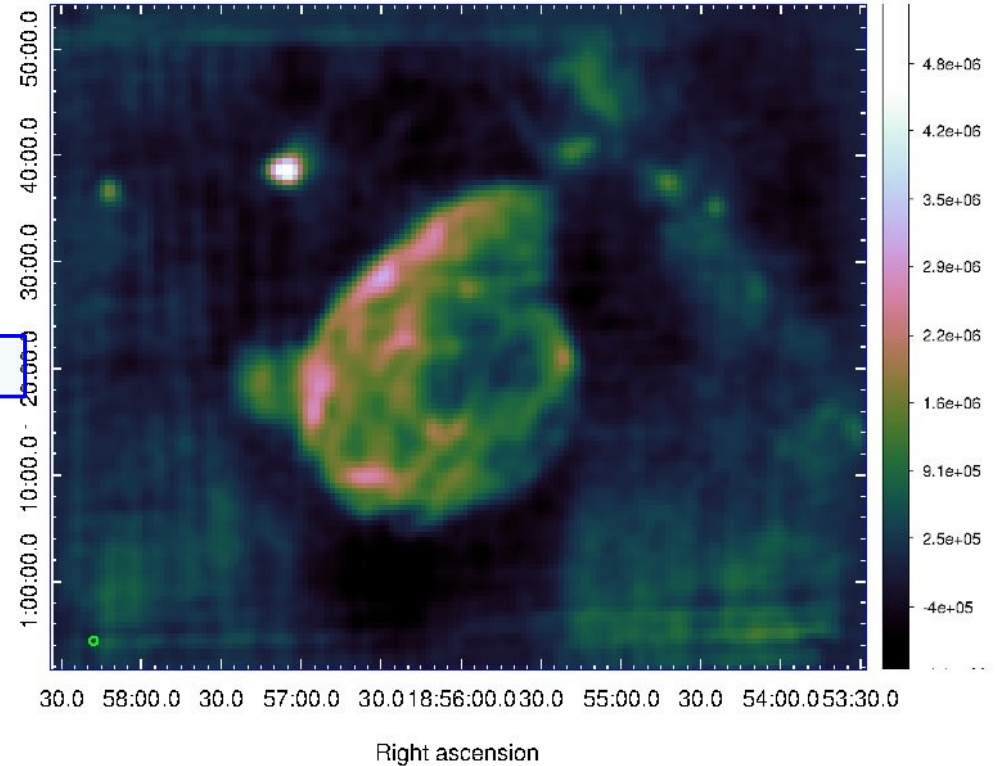
• SNR IC443

# Outlook for the future: spectral index maps

## C-band map (7.0 GHz)



## K-band map (21.4 GHz)



A large white radio telescope dish is the central focus, mounted on a complex white metal structure. The dish is a parabolic grid of metal beams. In the background, a green hillside is dotted with several wind turbines under a clear blue sky. The entire scene is framed by a blue border.

**Thank you for your attention**

22/02/17

Sara Loru