OBSERVATIONS OF IONISED CARBON TOWARDS SNR RXJ1713.7-3946

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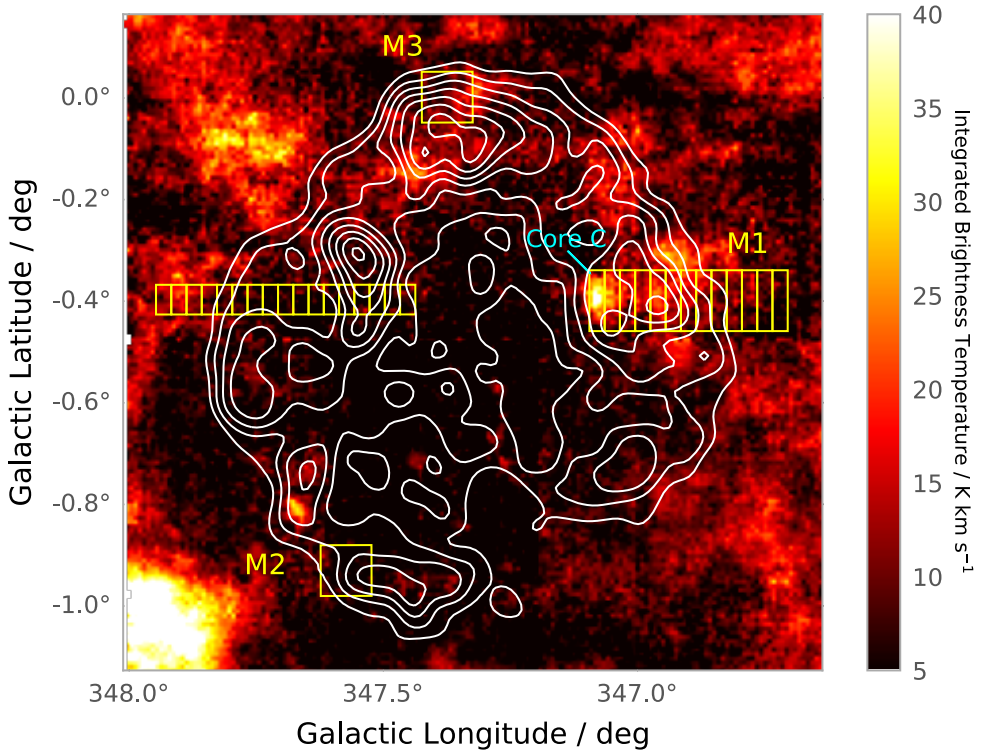
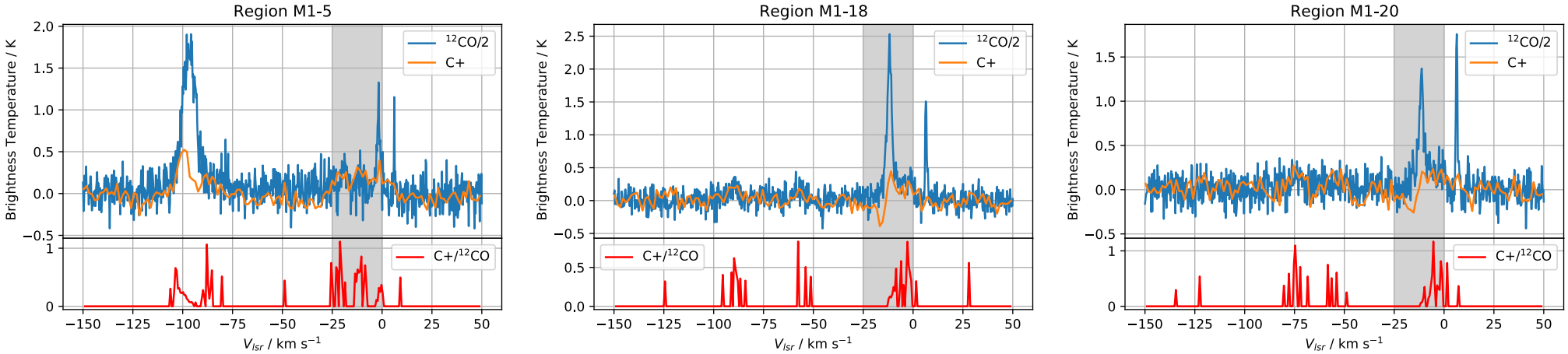
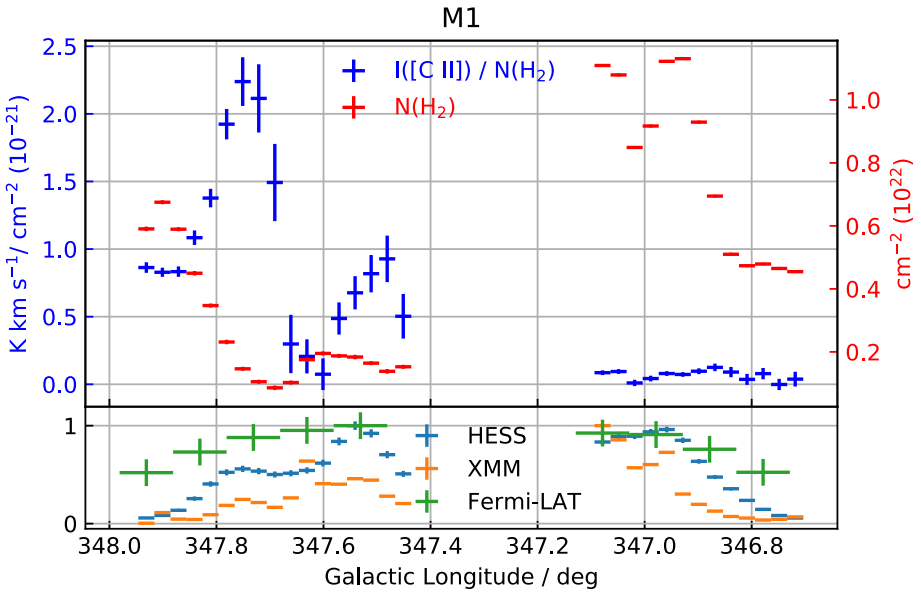
- C+ can be used as a tracer for ionisation.
- We are looking for locations and potential sources of ionisation.
- Our primary interest is cosmic rays.

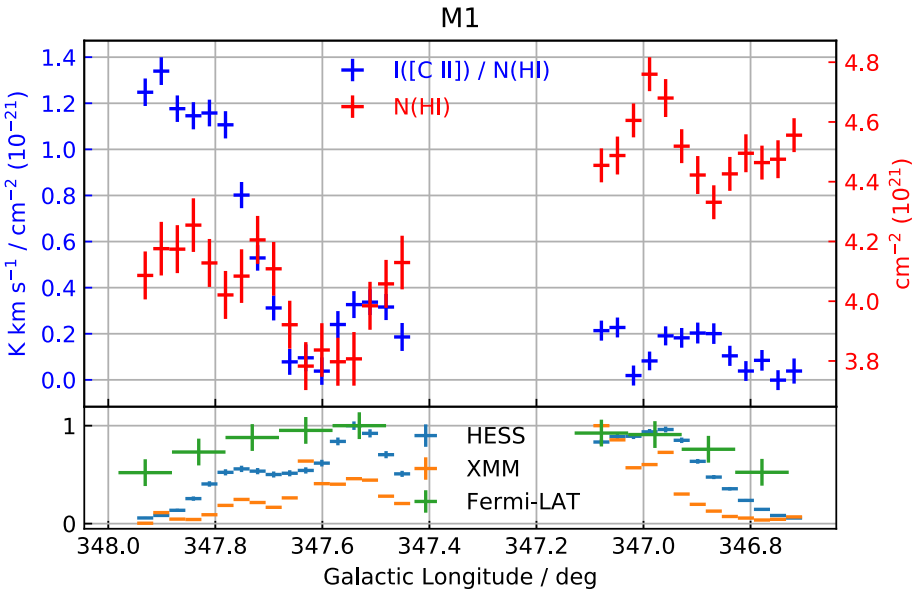


SPECTRA



- The figures show the spectra of ^{12}CO(J=1-0) and I[C II] from -150 km/s to 50 km/s for selected regions.
- The shaded band indicates where SNR RXJ1713 is located.





GAS RATIOS ACROSS THE SNR

- Gas clouds on the right of the remnant are primarily molecular, while those on the left seem to be atomic.
- Excess C[II] emission comes from the left of the remnant.

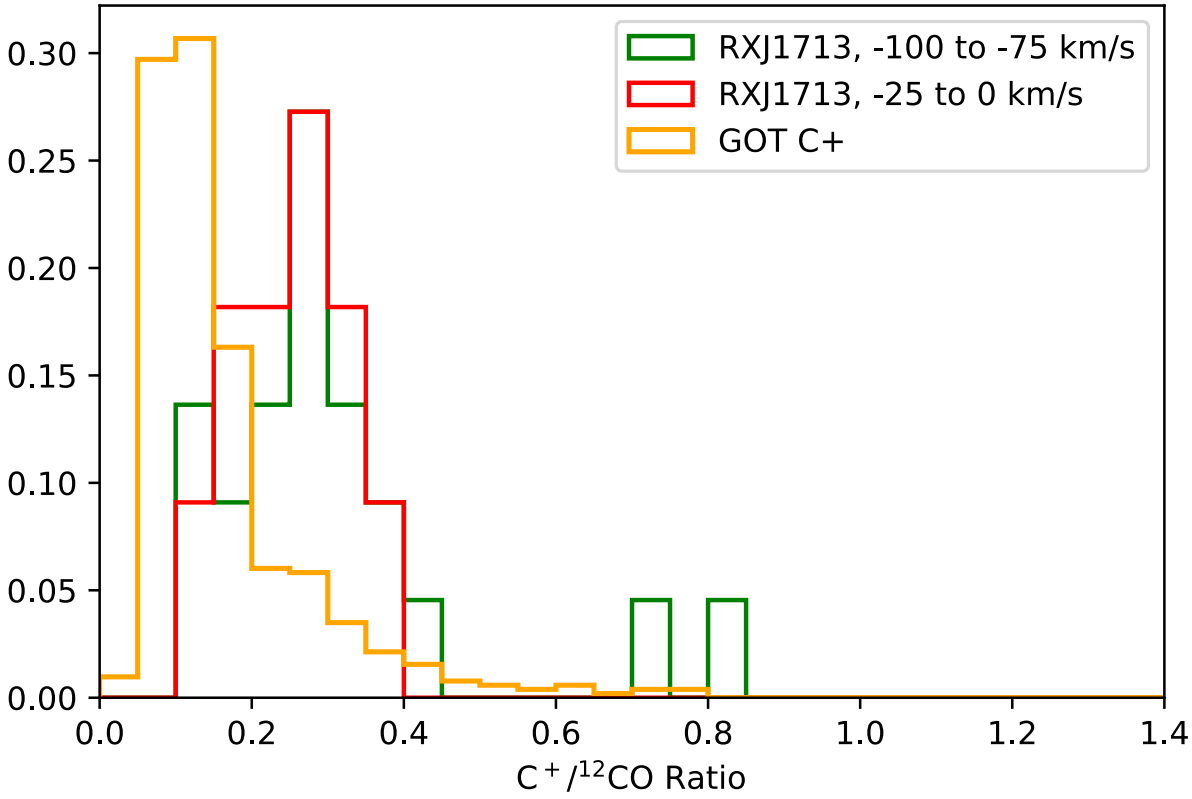
GOT C^+ SURVEY

- The GOT C^+ survey(Pineda et al., 2013) was conducted using the Herschel telescope.
- It was a sparse Galactic plane survey of the 1.9THz C[II] spectral line.

$C^+/^{12}CO$ RATIO ACROSS THE GALAXY

- We compared the GOT C^+ data with the ^{12}CO Mopra data to identify locations that have a similar $C^+/^{12}CO$ ratio as SNR RXJ1713.

- RXJ (-25 km/s to 0 km/s) Median = 0.28
- RXJ (-100 km/s to -75 km/s) Median = 0.26
- GOT C^+ Median = 0.13



DISTRIBUTION OF C^+ AND ^{12}CO