

## Molecular Clouds associated with middle-aged gamma-ray Supernova Remnants W41 and G22.7-0.2





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Aims:

· Elucidation of the origin of cosmic ray (CR) acceleration in the our Galaxy

 $\rightarrow$ A relation between the SNR age & the total energy  $W_p$  of the accelerated CRs

**To do**: Estimation of the  $W_p$  of middle-aged gamma-ray SNRs

## **Results:**

- Molecular gases associated with SNR W41, G22.7–0.2 were identified and  $W_p$  was estimated.
- The age- $W_p$  plots for these SNRs are consistent with the trends shown for the other SNRs.



