Summer 2020 GREAT Update

Simon Coudé, Kyle Kaplan, & Randolf Klein
First detection of $^{13}$CH in the interstellar medium – Jacob et al.
The PDR structure and kinematics around the compact HII regions S235 A and S235 C … – Kirsanova et al.

A Search for Light Hydrides in the Envelopes of Evolved Stars – Siebert et al.

A SOFIA Survey of [C II] in the Galaxy M51 II. [C II] and CO Kinematics Across Spiral Arms – Pineda et al.

Legacy Program: FEEDBACK

Radiative and mechanical feedback in regions of massive star formation (FEEDBACK)

PIs: Tielens and Schneider (07_0077)

[CII] (and [OI]) data cubes of
- 11 prominent Galactic sources
- 6000 arcmin²
- 96 hours awarded, 33 observed
- Allows to study mechanical and radiative feedback of massive stars
- Similar data set to Orion [CII] map shows as video here

Upcoming Legacy Program: HyGal

HyGAL: Characterizing the Galactic Interstellar Medium with Hydrides

PIs: Neufeld and Schilke (08_0038)

- Absorption-line spectroscopy
- 22 sight lines in the Galactic plane
- Column densities of OH+, H2O+, ArH+, SH, OH and CH C+ and O
- 82 hours awarded
- Distribution for the H2 fraction
- Cosmic-ray ionization
- Characterization of ISM turbulence