

The GLOSTAR VLA galactic plane survey

- Sergio Dzib

The main objective of the GLOSTAR project is to provide a GLOBAL view on STAR formation in the Milky Way galaxy. Combining radio, submm and IR observations, it gathers data that yields information on the distances, composition, luminosities and masses of high-mass proto- and young stellar objects. The goal is a comprehensive picture of massive star formation and Galactic structure. The VLA, in its B and D configuration, was used to measure the radio continuum emission and a total of 7 radio recombination lines (Brunthaler et al. in prep). These we combine with high spectral resolution windows covering emission in the 6.7 GHz class II methanol maser line as well as 4.8 GHz formaldehyde emission and absorption. In the continuum we detect compact, hyper-, and ultracompact HII regions with unprecedented sensitivity. The methanol maser line traces high-mass young and protostars associated with HII regions and objects in earlier evolutionary stages. The survey covers the whole Galactic plane from the Galactic Center out to a longitude of 60 degrees and, in addition, the Cygnus X region. The B- and D configuration data from our VLA survey will be combined with data acquired with the Effelsberg 100m telescope. This will ensure that the overall survey will not miss large spatial scales and indeed provide a global view of star formation in the Galaxy. Here, I will talk about our result in the pilot region ($l=28^{\circ}$ - 36° , $b=\pm 1^{\circ}$), where we detect around 2000 continuum sources (Medina et al. in prep), and the area around the Galactic center ($l=358^{\circ}$ - 2° , $b=\pm 1^{\circ}$; Dzib et al. in prep.).

Upcoming Facilities & Future Surveys