

ABSTRACT

TAN, Jonathan

University of Florida, Astronomy & Physics, Gainesville

Latest results from the Census of High and Medium-mass Protostars (CHaMP)

The Census of High- and Medium-mass Protostars (CHaMP) is the first large-scale, unbiased, uniform mapping survey at sub-parsec scale resolution of 90 GHz line emission from massive molecular clumps in the Milky Way. We present example Mopra (ATNF) maps of the ~300 clumps found in CHaMP survey region ($300^\circ < l < 280^\circ$) in the HCO+J = 1 \rightarrow line. We discuss the physical properties of the clumps, including estimates of their bolometric luminosities from an analysis of IR survey data. We analyze the implications of this clump population for the demographics of star cluster formation. We relate this census of dense gas to the overall gas content (atomic and molecular) in this region of the Milky Way.