THE CARMA LARGE-AREA STAR-FORMATION SURVEY: CLASSY

LESLIE LOONEY, MANUEL FERNANDEZ-LOPEZ, DOMINIQUE M. SEGURA-COX, *Department of Astronomy, University of Illinois at Urbana-Champaign, Urbana, IL, USA*; LEE MUNDY, SHAYE STORM, KATHERINE LEE, *Department of Astronomy, University of Maryland, College Park, MD, USA*; HÉCTOR ARCE, *Department of Physics, Yale University, New Haven, CT, USA*.

The spectroscopy of molecular clouds probes their structure and kinematics from large to small spatial scales and covering a range of environments are of fundamental importance to understanding how clouds evolve to form stars. CARMA has the unique ability to survey the gas participating in star formation in nearby clouds on scales from parsecs to $\sim$1,000 AU. We will present the results from the CARMA Large Area Star-formation Survey (CLASSy) Key Project. CLASSy has mapped 3 fields in Perseus (NGC 1333, Barnard 1, and L1451) and 2 fields in Serpens (Serpens Main and Serpens South) totaling 700 square-arcminutes in HCN, HCO^+, and N_2H^+ J=1-0 emission lines (dense gas tracers) to: 1) test the predictions of turbulence-driven star formation, 2) test if magnetic fields are dynamically important in turbulent clouds, 3) clarify the relationship between dense cores, their surrounding cloud, and the local YSOs, and 4) study core evolution. The data products from CLASSy will be available to the community.