

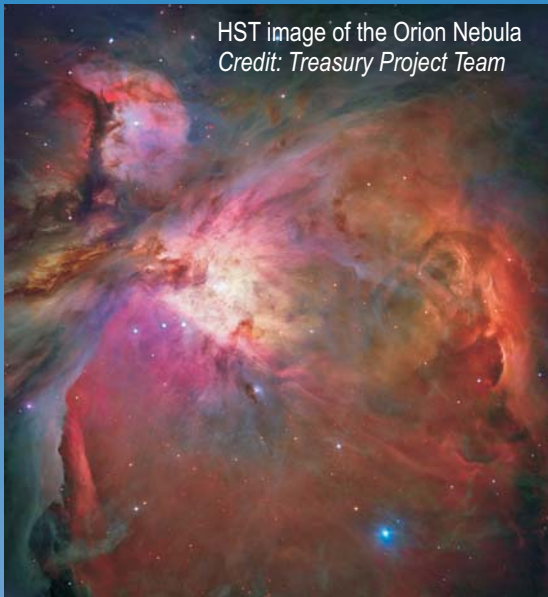
TRANSFORMATIONAL SCIENCE WITH ALMA: The Birth and Feedback of Massive Stars, Within and Beyond the Galaxy



Sept. 25-27, 2008 at the North American ALMA Science Center of the National Radio Astronomy Observatory in Charlottesville, VA

Key Science Questions:

- What physics determines star formation scaling relations in galaxies?
- What molecular cloud properties influence massive star formation?
- What are optimal probes of the physical conditions in massive star forming regions?
- How does massive star formation differ in the most extreme environments (Galactic center, super star clusters, starburst galaxies)?
- What are the best observational discriminators between theories of massive star/cluster formation?
- How do forming massive stars affect their parent molecular clouds (e.g. turbulence, triggering)?
- What effects do young massive clusters have on their parent galaxies (e.g. galactic winds, triggering)?
- How can ALMA best address these questions?



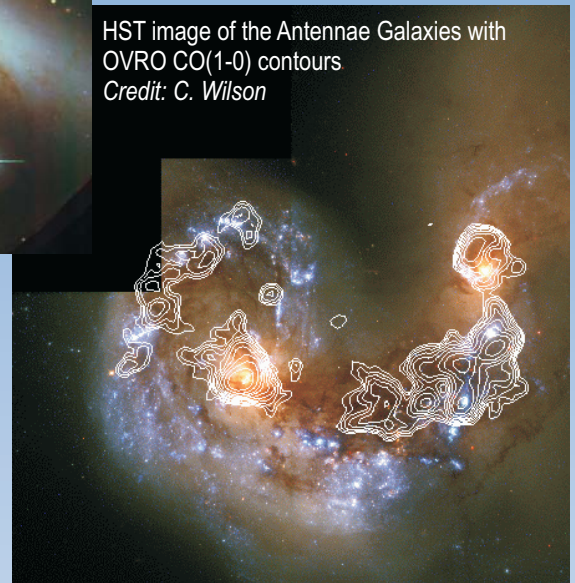
HST image of the Orion Nebula
Credit: Treasury Project Team



Optical through
MIR view of the
LMC
Credit: SAGE
team



Subaru B, V, and H image of M82
Credit: NAOJ



HST image of the Antennae Galaxies with
OVRO CO(1-0) contours
Credit: C. Wilson

SOC:

A. Baker (Rutgers; co-chair)
J. Bally (U. Colorado)
C. Brogan (NRAO)
T. Heckman (Johns Hopkins)
R. Indebetouw (NRAO/UVa;
co-chair)
K. Johnson (UVa)
D. Johnstone (HIA)
J. Tan (U. Florida)
L. Testi (ESO)
J. Turner (UCLA)
K. Wada (NAOJ)
J. Williams (U. Hawaii)
C. Wilson (McMaster)
A. Wootten (NRAO)

LOC:

C. Brogan (NRAO)
L. Clark (NRAO; chair)
A. Hales (NRAO)
J. Hibbard (NRAO)
T. Hunter (NRAO)
R. Indebetouw (NRAO/UVa)
J. Neighbours (NRAO)
A. Reines (UVa)
A. Remijan (NRAO)

