

When galaxies collide: the unusual environment of Centaurus A

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VNGS Team

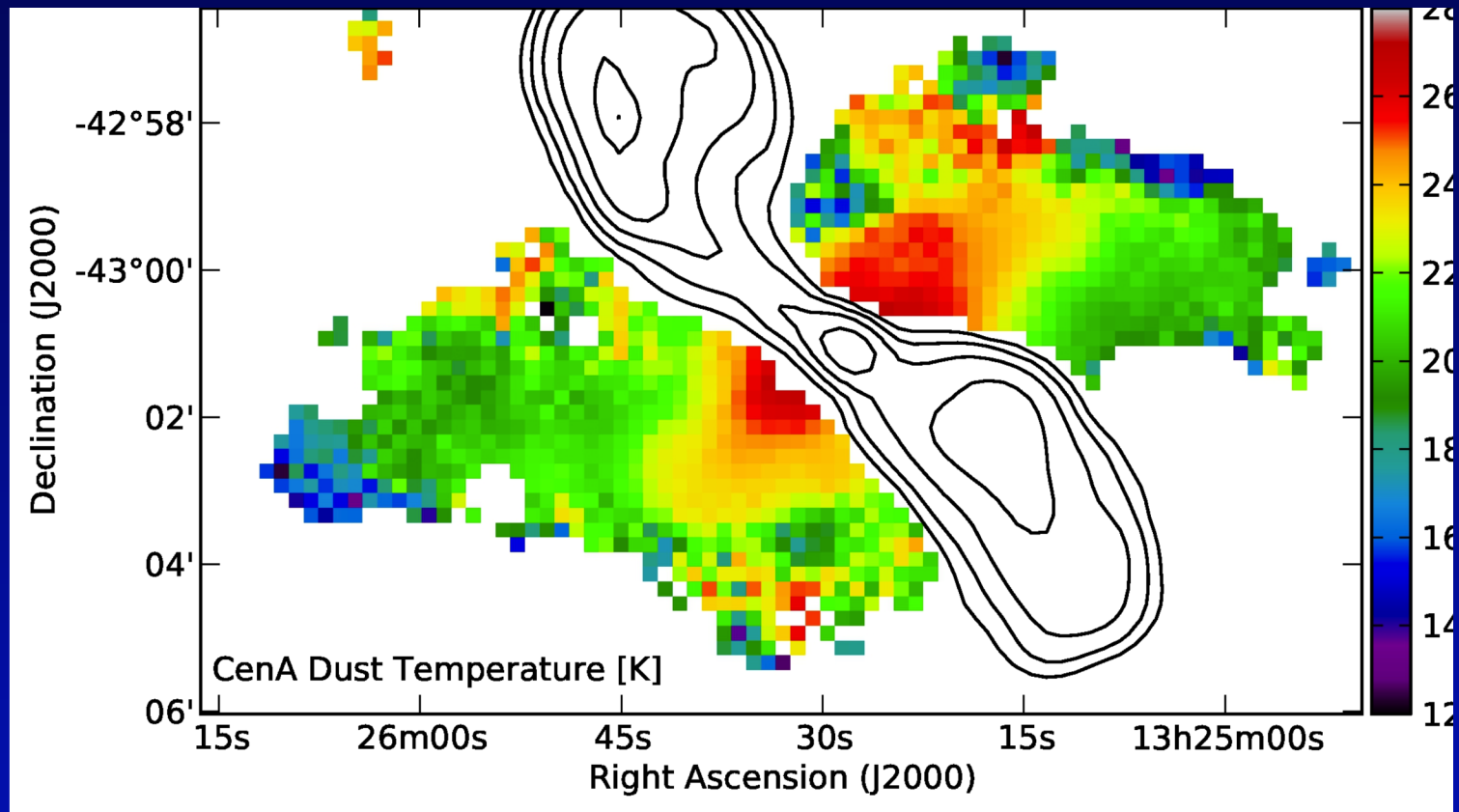
The Herschel Space Observatory



- 3.5 m diameter
- 60-600 microns
- 3 instruments
 - SPIRE
 - PACS
 - HIFI
- Imaging and spectroscopy
- 3.5 yr lifetime

Canadian participation in SPIRE and HIFI

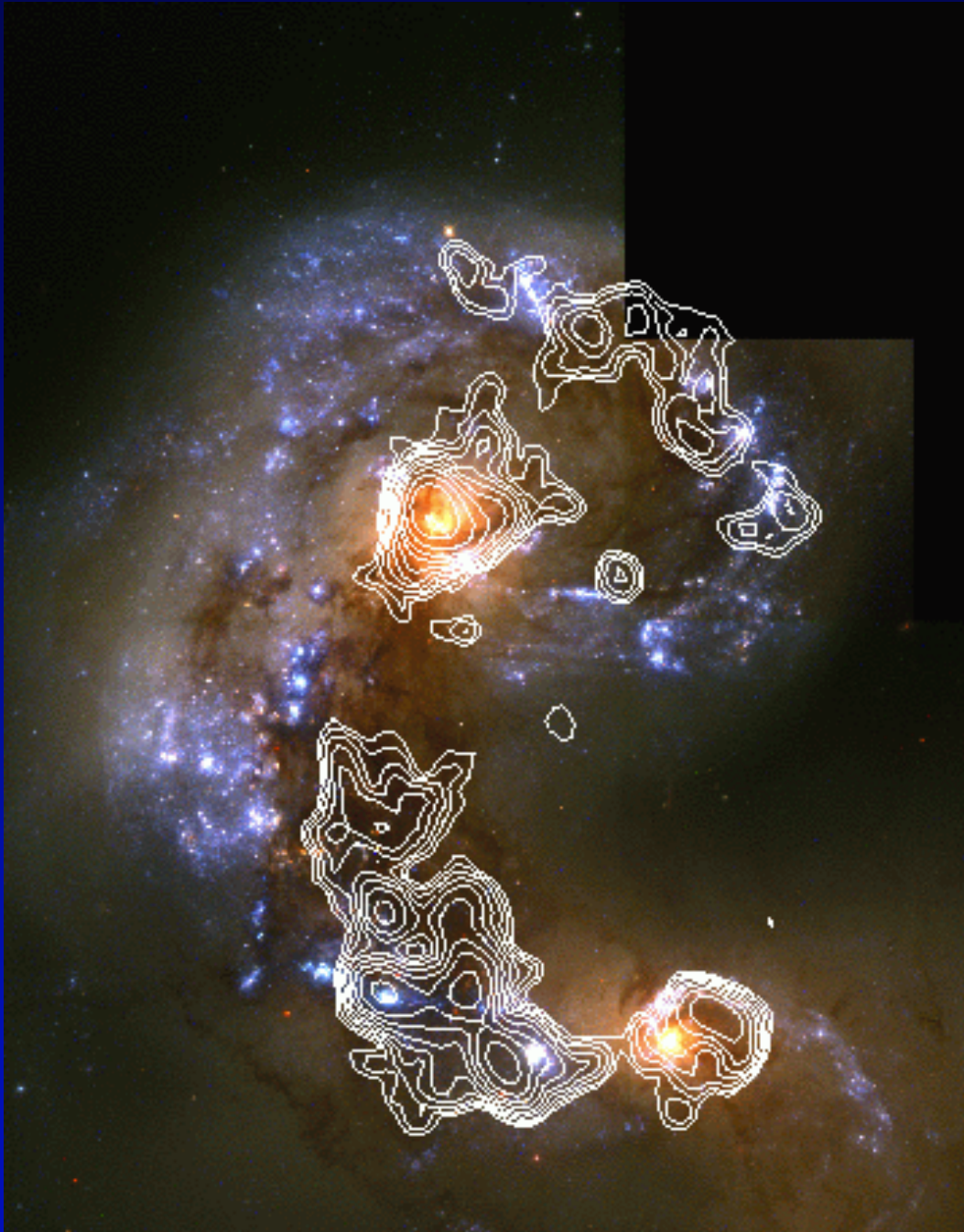
Dust Temperature



- 30 K in the central core, drops to 20 K in disk
- Contours show radio emission from jet driven by central black hole

Parkin, Wilson, et al., in prep.

Massive star clusters and gas clouds in a galaxy merger

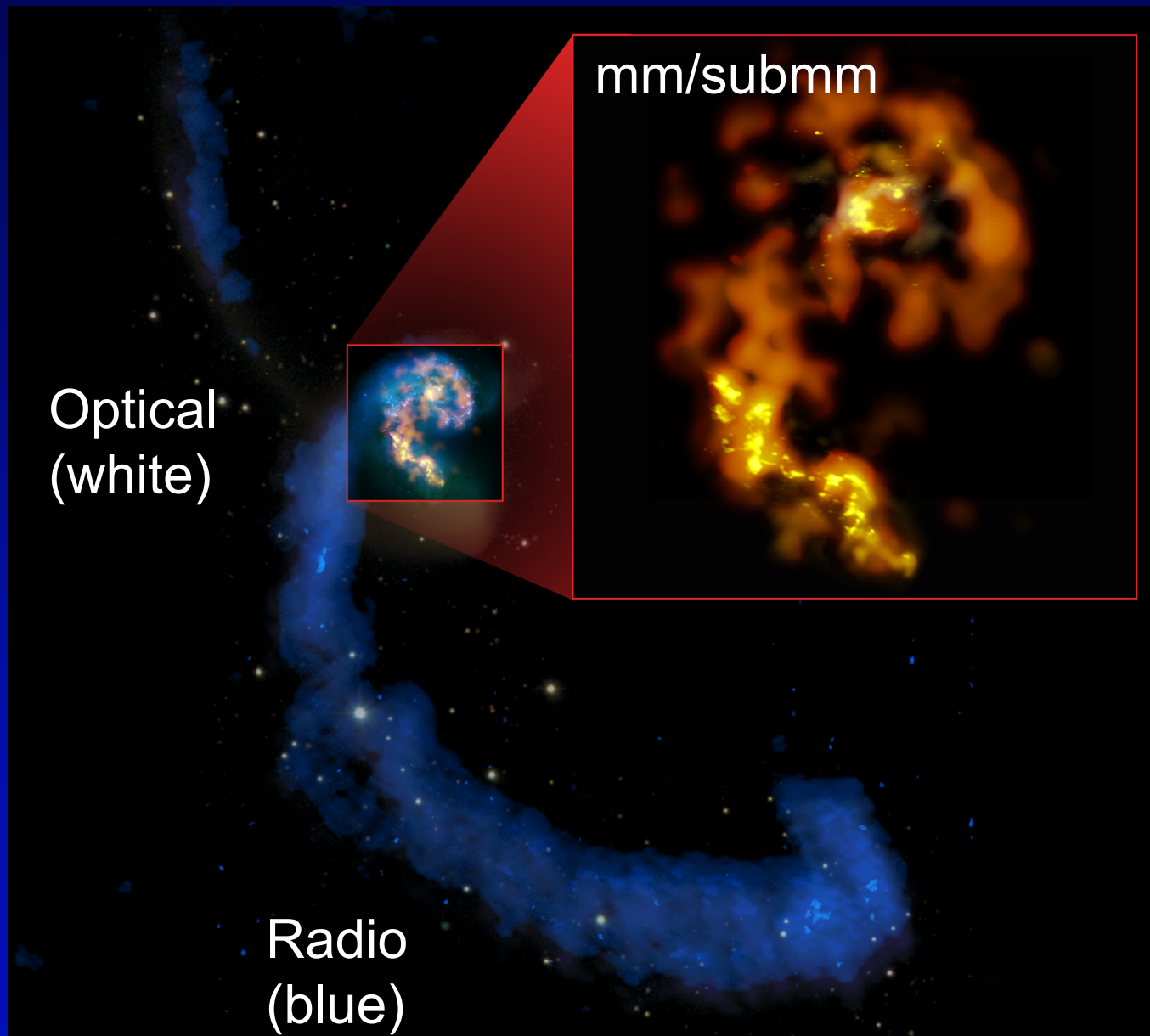


(Figure from Wilson et al. 2000;
HST data Whitmore et al.
1999, *Astronomical Journal*)

ALMA: the Atacama Large mm/submm Array



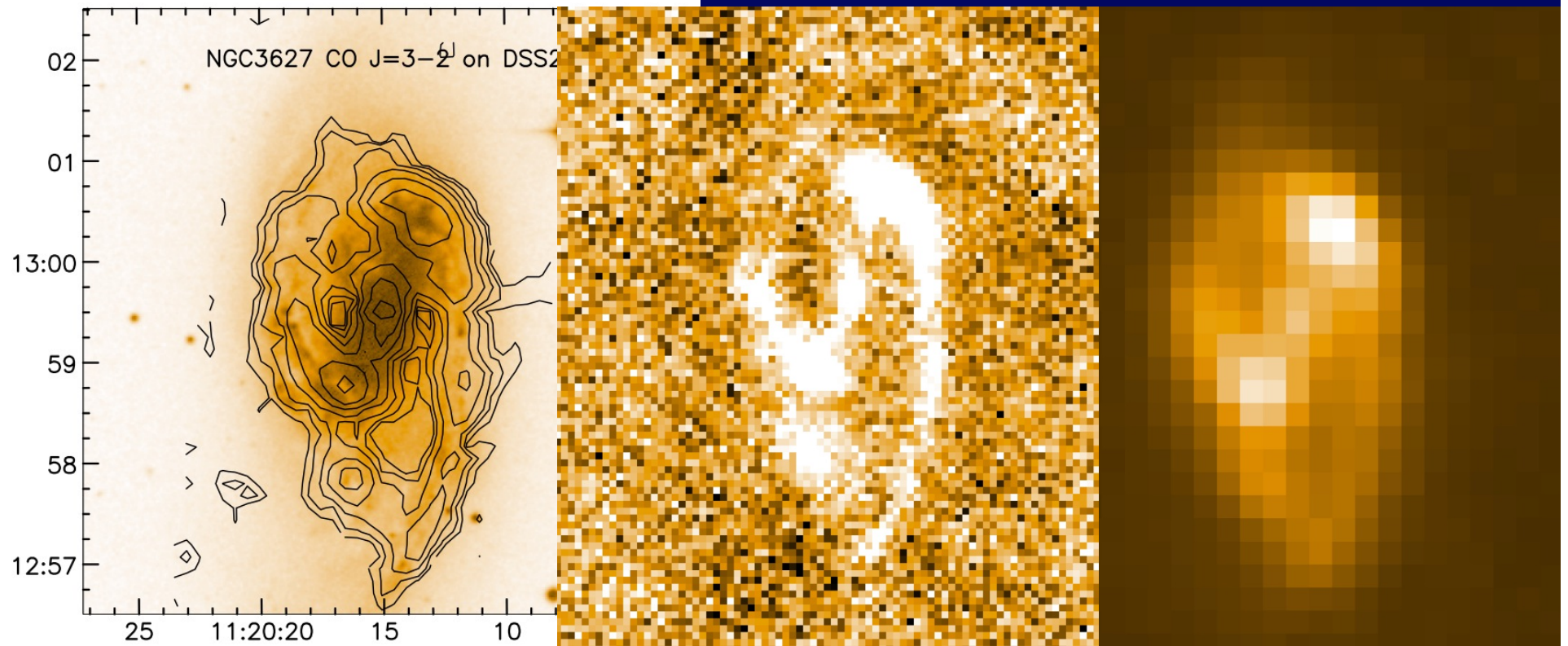
ALMA images the Antennae Galaxies



ALMA Early
Science began
Sept 30, 2011

Credit:
NRAO/AUI/NSF);
ALMA (ESO/
NAOJ/NRAO);
HST (NASA, ESA,
and B. Whitmore
(STScI));
J. Hibbard,
(NRAO/AUI/NSF);
NOAO/AURA/NSF.

Dust in NGC 3627 with SCUBA-2



CO J=3-2 on optical
JCMT+HARP
NGLS (Wilson et al. 2012, MNRAS)

450 micron
JCMT+SCUBA2
NGLS (Wilson et al., in prep.)

500 micron
Herschel+SPIRE
KINGFISH (Kennicutt et al. 2011, PASP)