

# Young stellar objects out flows of HOPS287

1 조 송인혁

## HOPS287

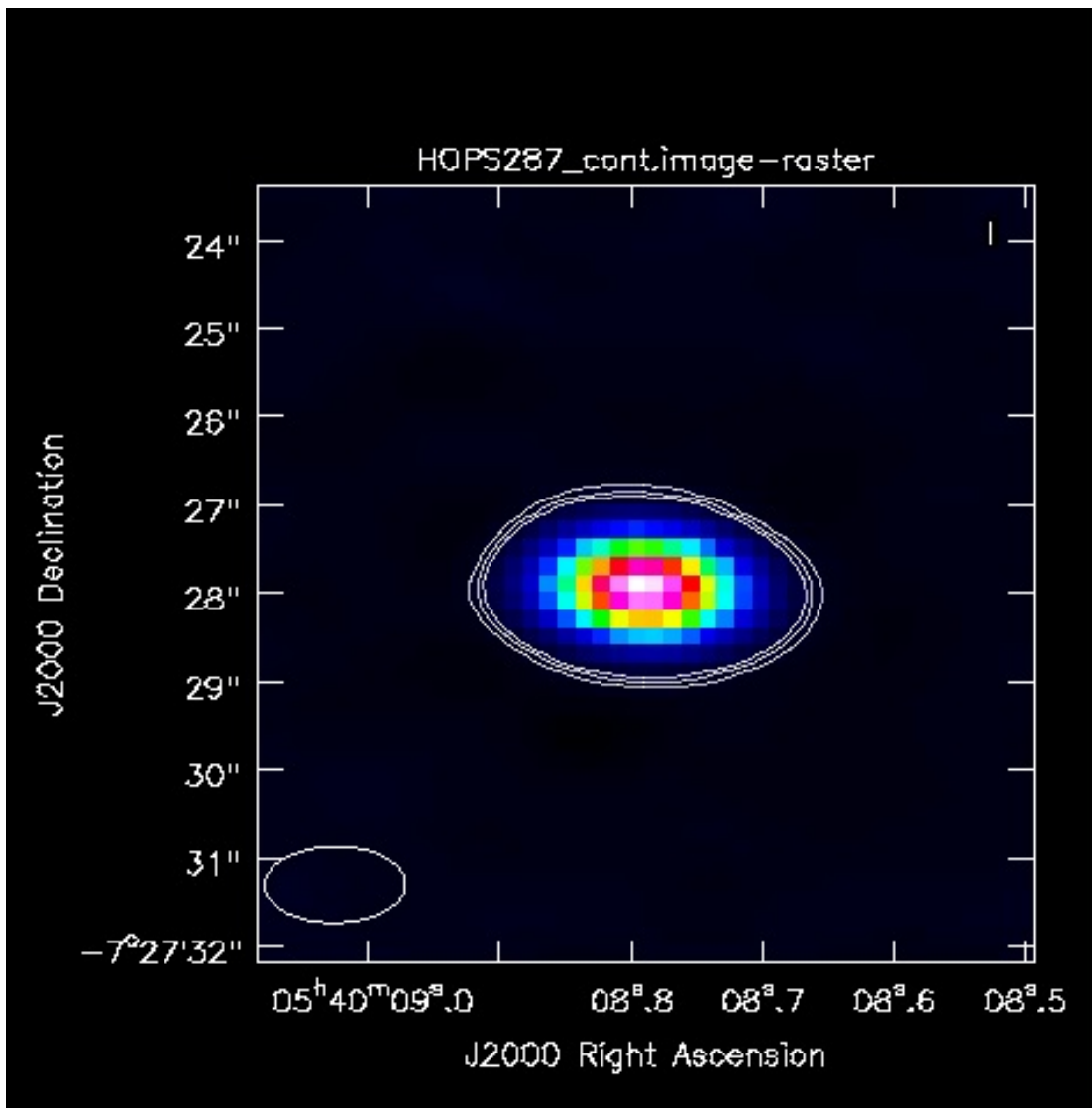
distance ~ 437 pc  
 Temperature ~ 50 K  
 opacity  $0.022 \text{ cm}^2/\text{g}$   
 gas-dust ratio 100:1

Beam used in restoration:  $1.51952928$   
 by  $8.8858886$  (arcsec) at  $92.5892554$   
 (deg)

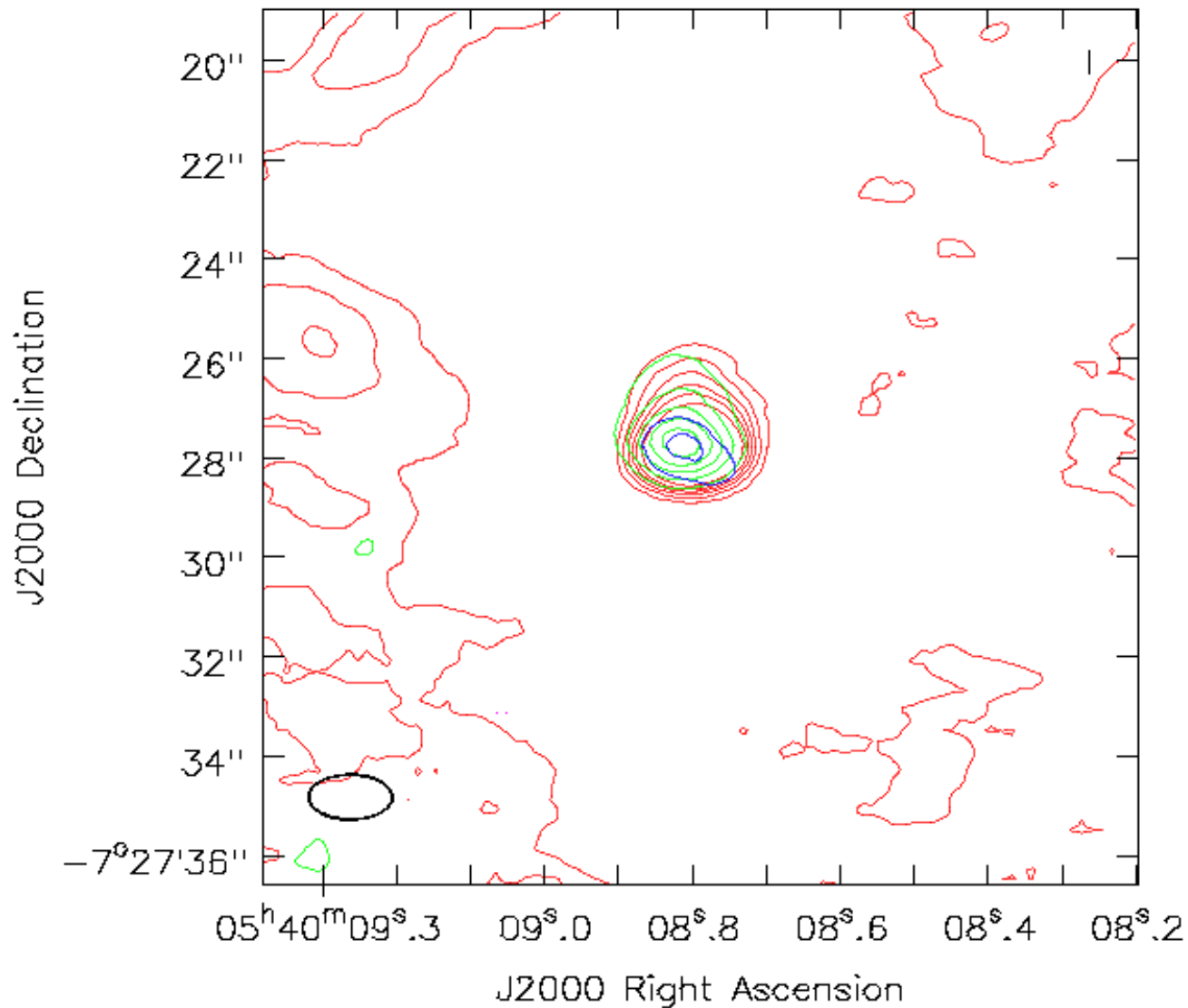
rms noise: 0.1 mJy  
 flux density:  $0.375 \text{ mJy}$   
 Peak density:  $537.5 \text{ mJy}$   
 Peak flux:  $25.5 \text{ mJy}$

$$M_{\text{disk}} = M_{\text{gas+dust}} = \frac{S_{1.3\text{mm}} \cdot d^2}{B(T_{\text{dust}}) \cdot \kappa_{1.3\text{mm}}}$$

$$M \sim 2.22 \times 10^{-2} M_{\odot}$$



HOPS287\_12CO\_cube.pbcor.mom0

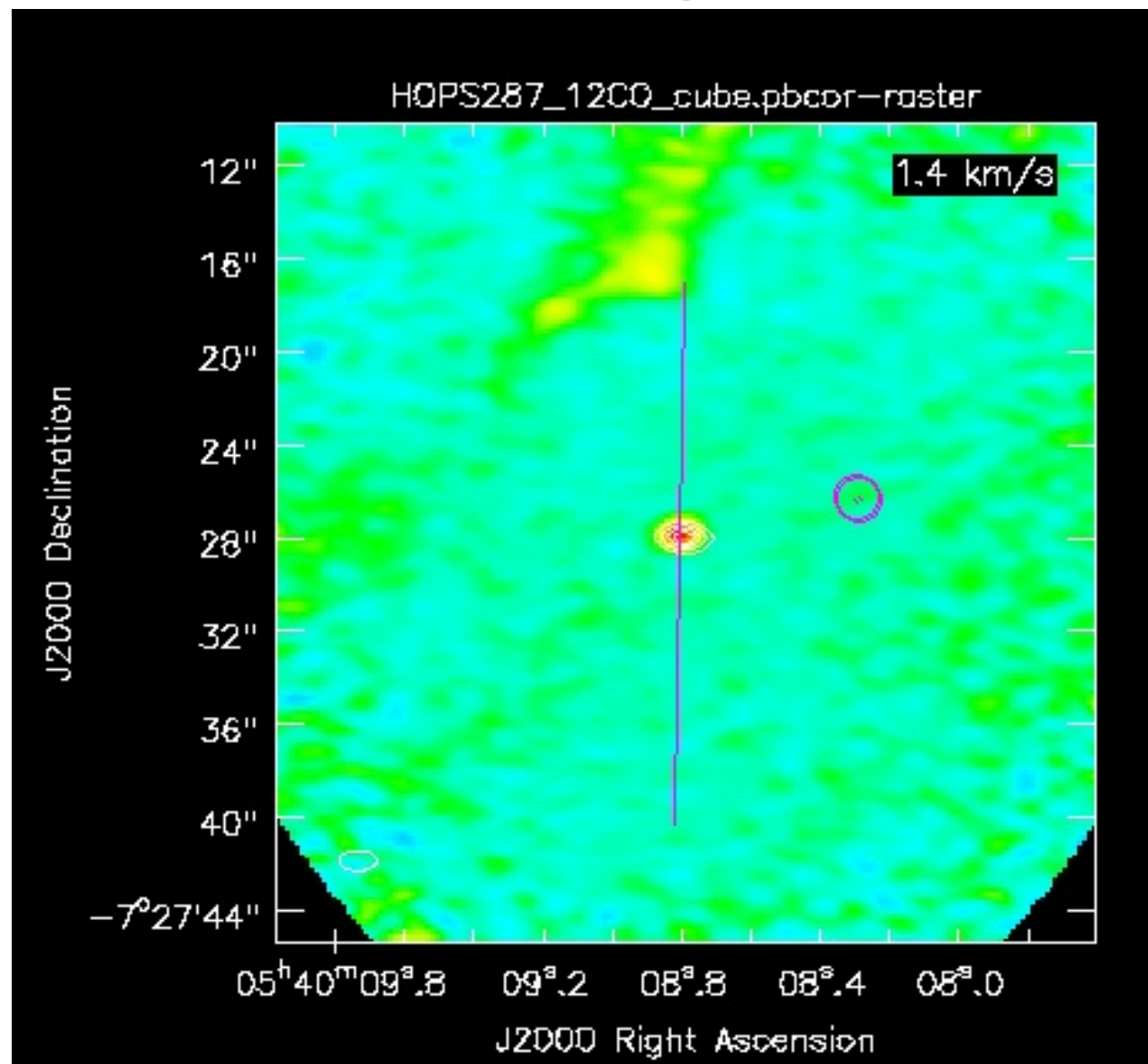


Red: 12CO

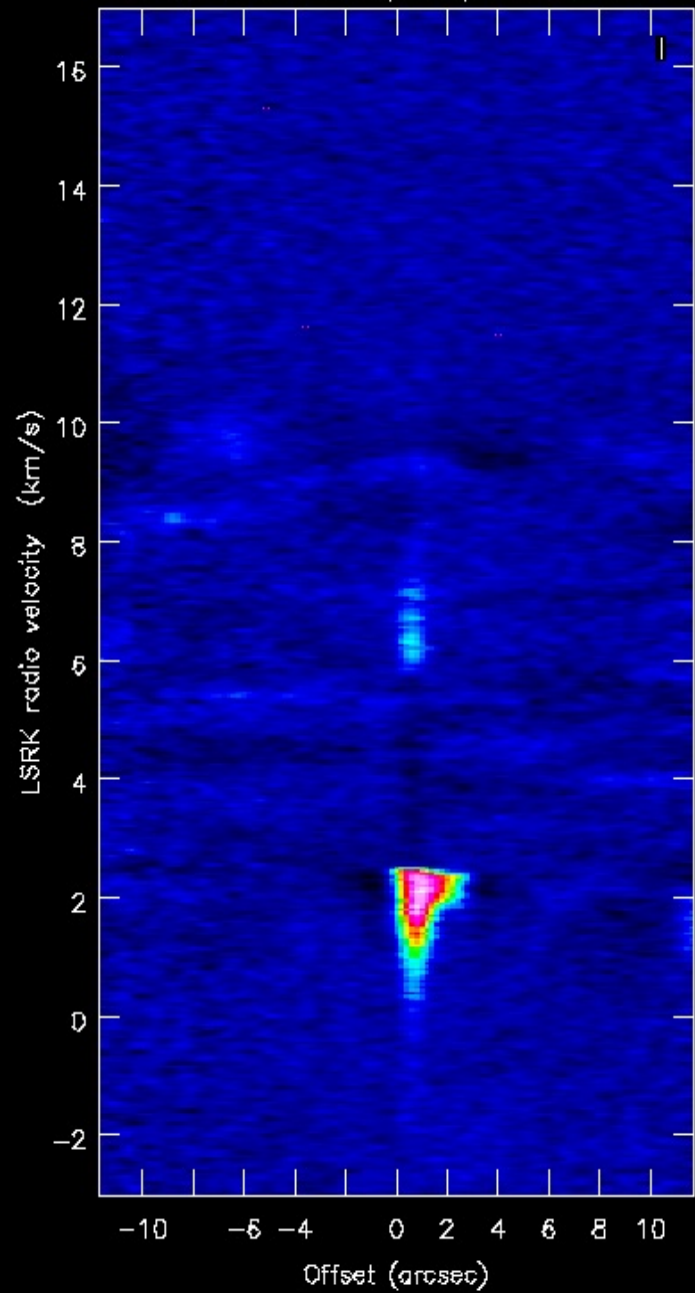
Green: 13CO

Blue: C18O

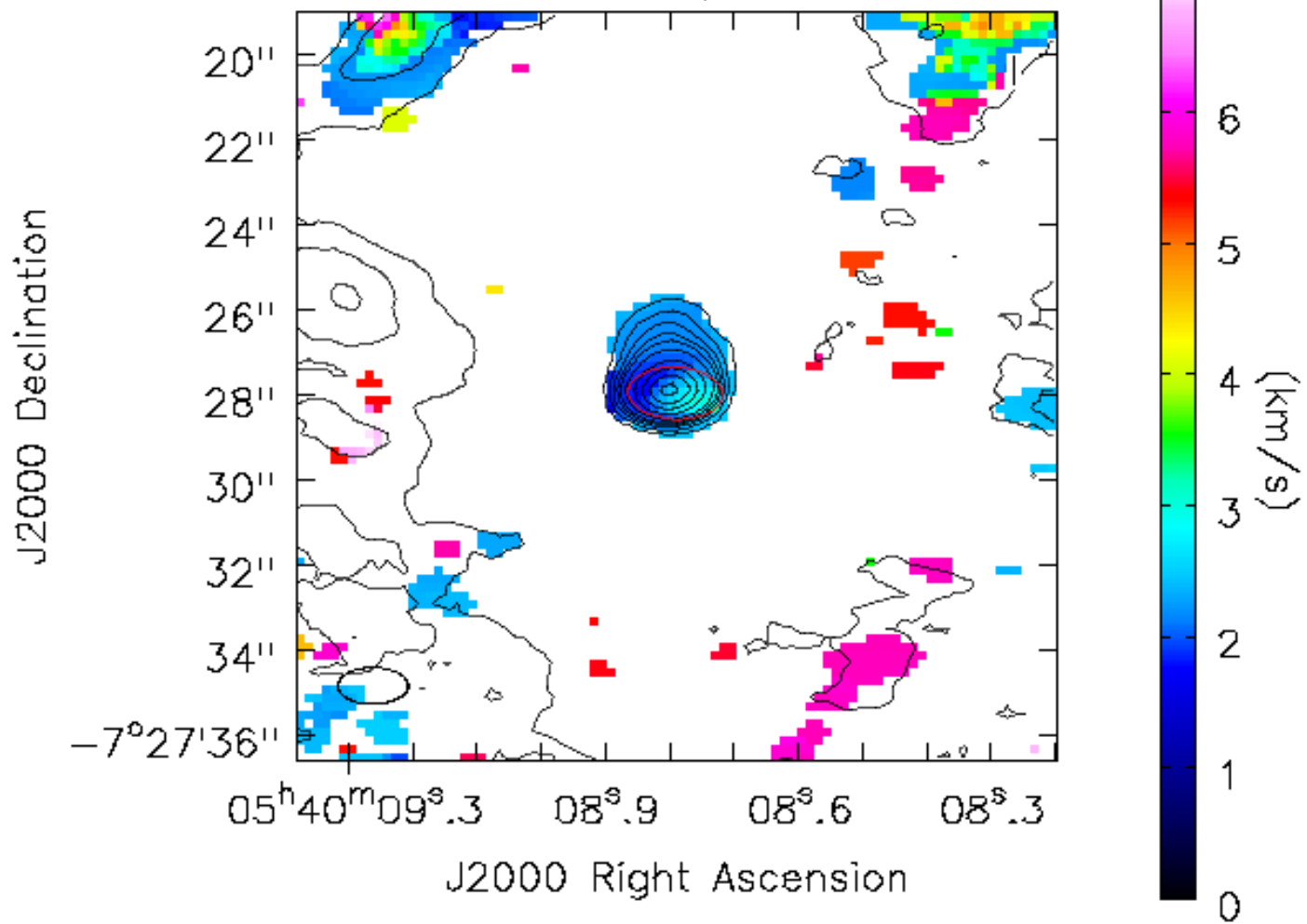
# PV diagram



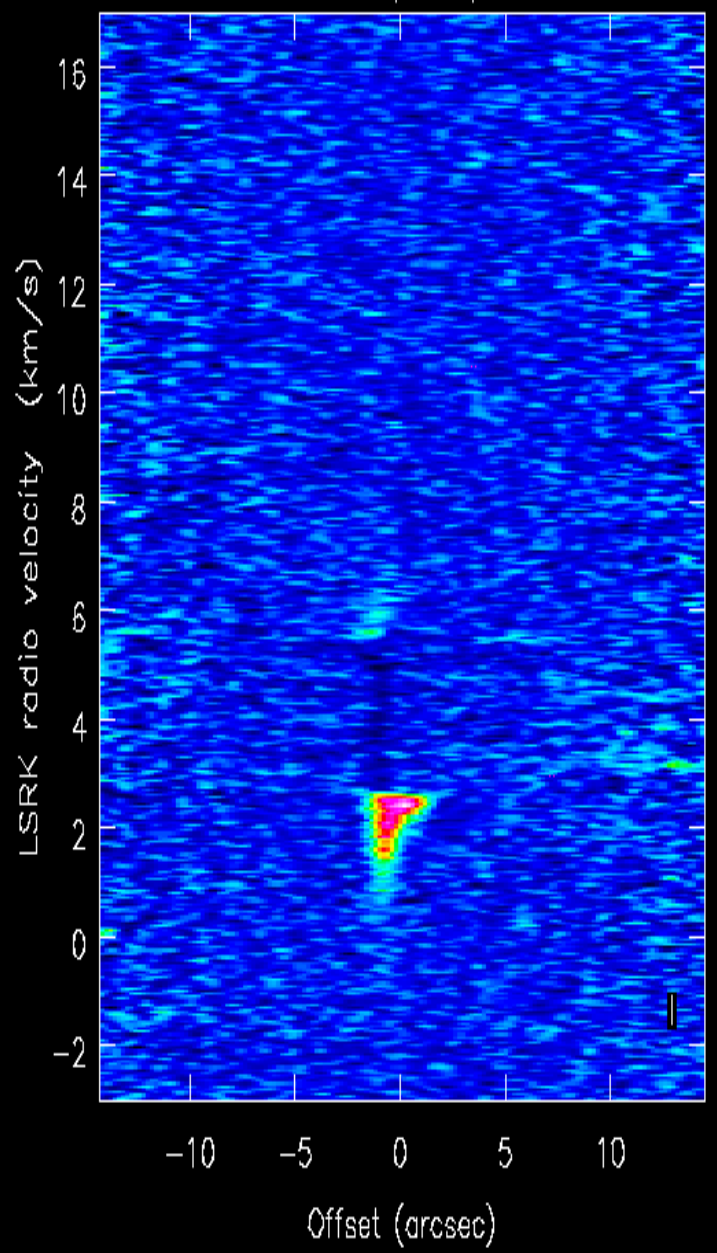
HOPS287\_12CO\_cube.pbcor.pvline.002-raster



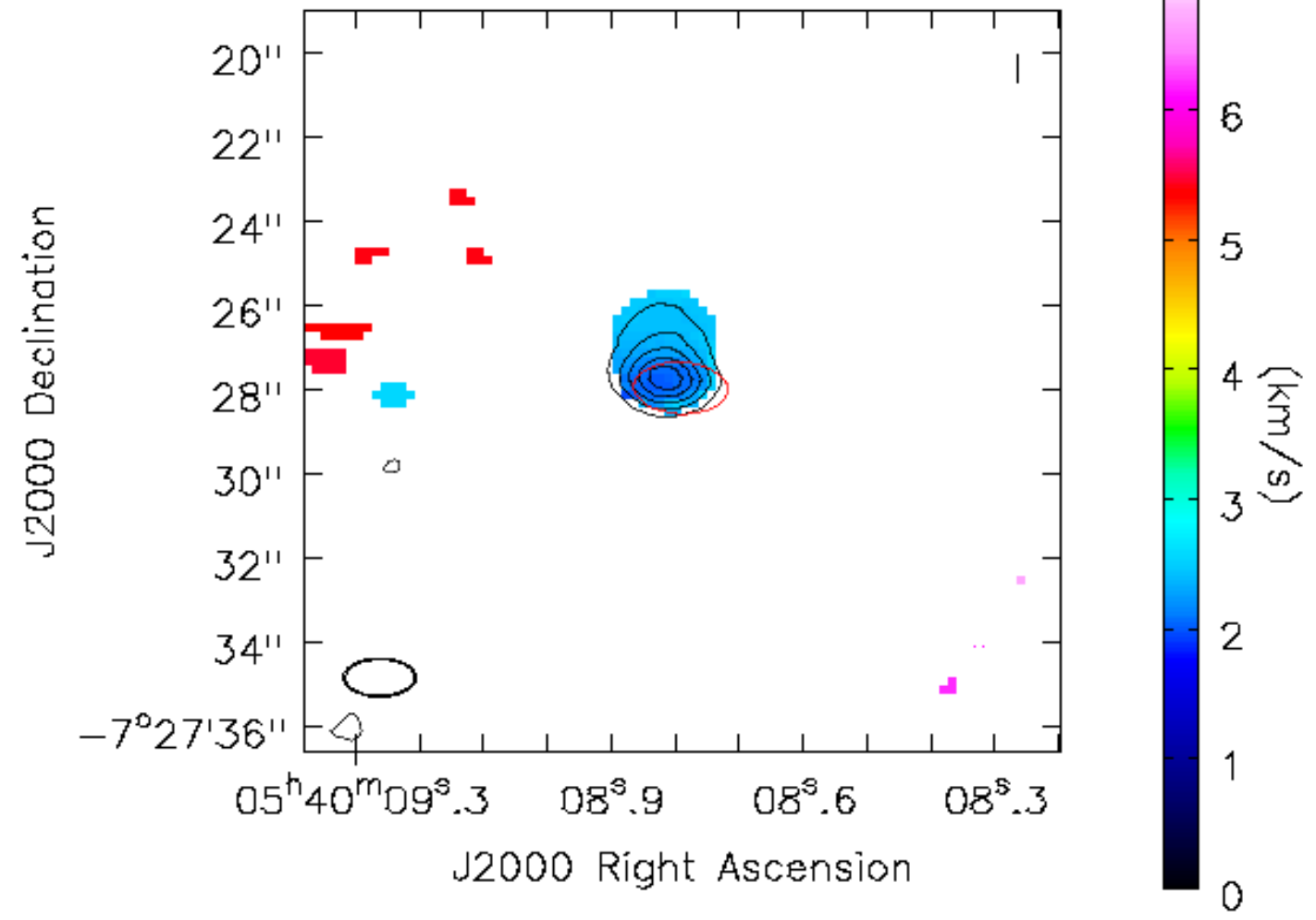
HOPS287\_12CO\_cube.pbcor.mom1-raster



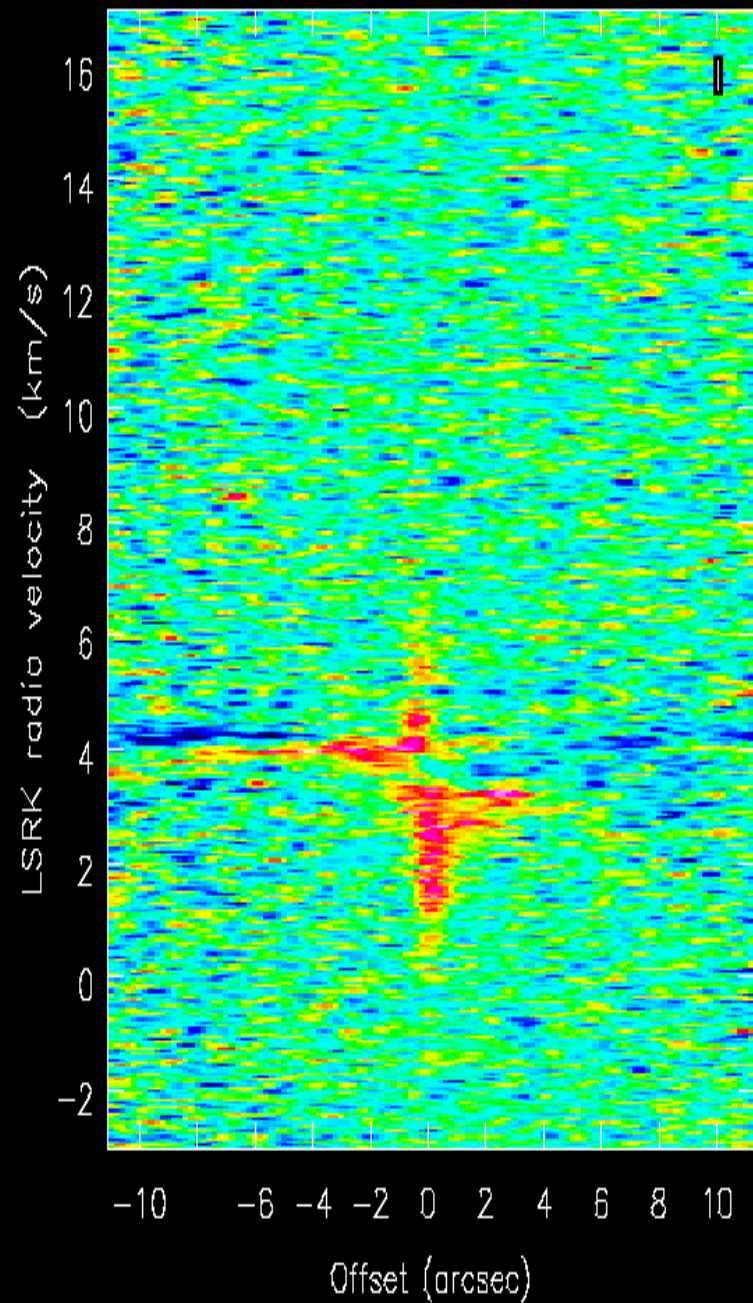
HOPS287\_13CO\_cube.pbcor.pvline.001-raster



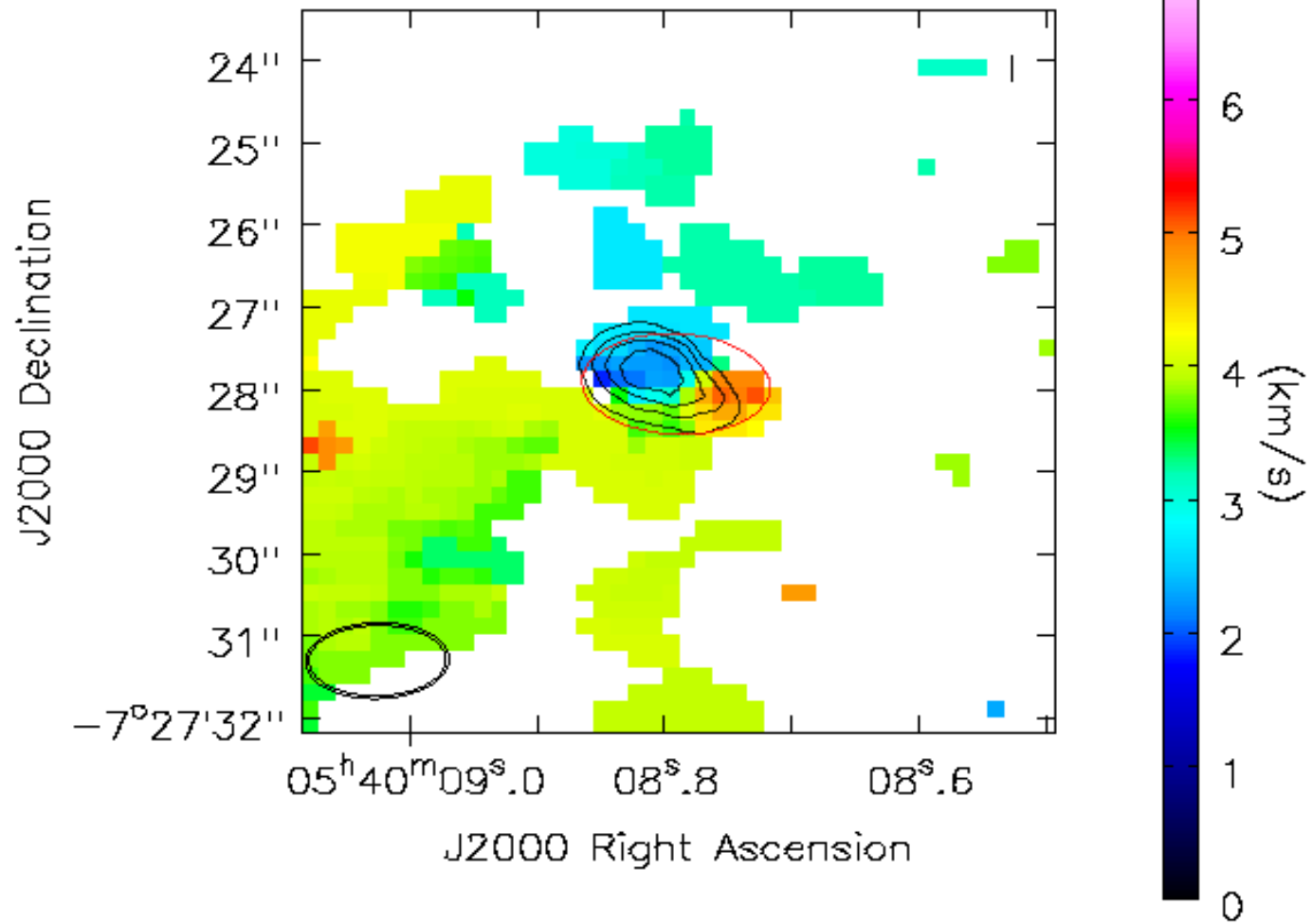
HOPS287\_13CO\_cube.pbcor.mom1-raster



HOPS287\_C180\_cube.pbcor.pvline.002-raster



HOPS287\_C180\_cube.pbcor.mom1-raster



# Reference

Nuernberger D., Chini R., Zinnecker H., 1997, A&A, 324, 1036