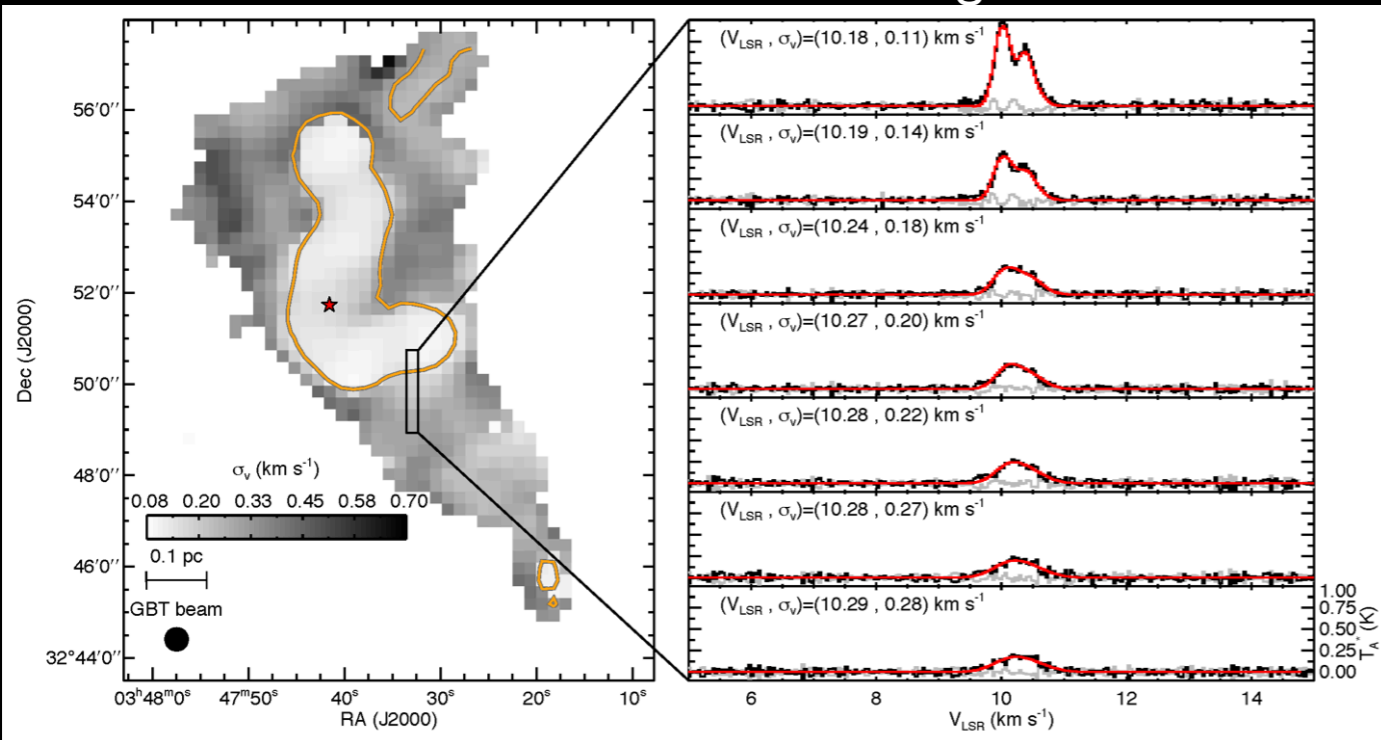
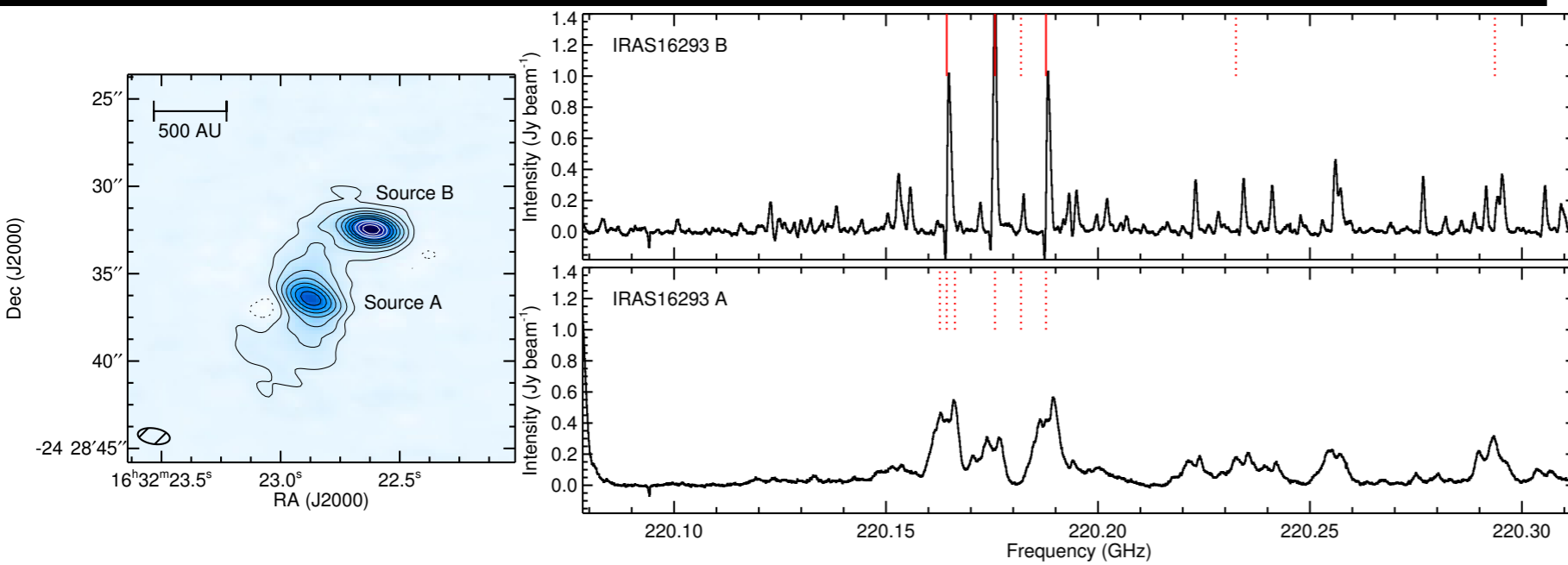
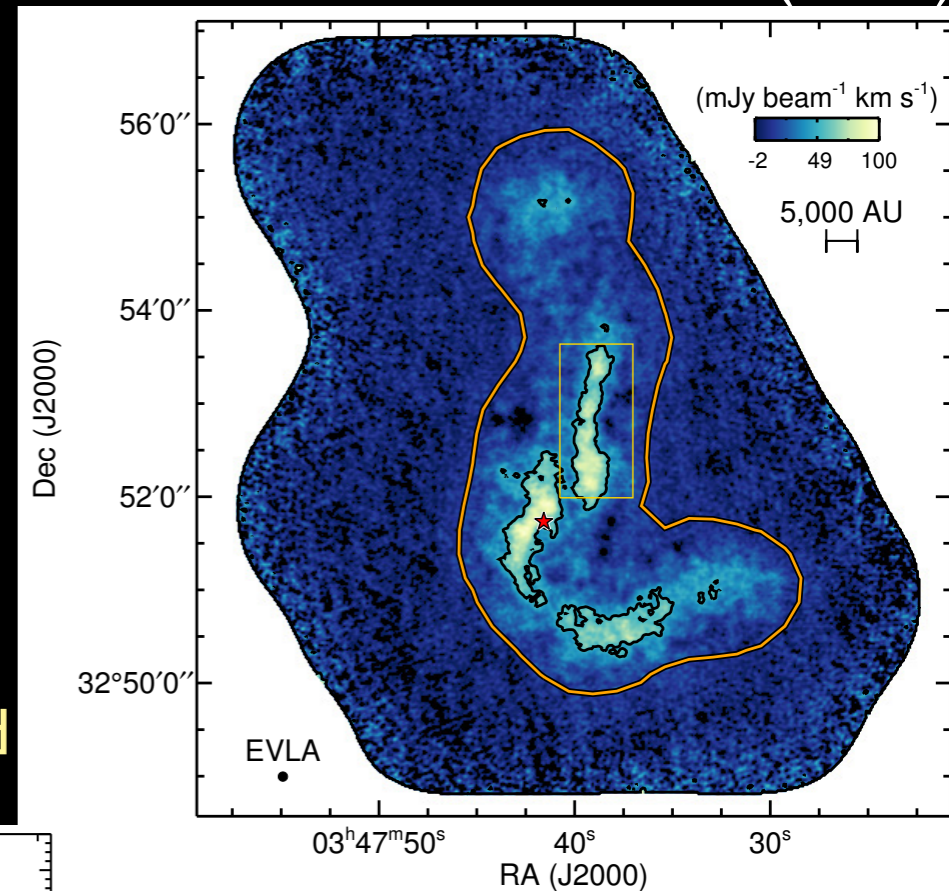


Large area GBT observations of dense gas:
-First observation of transition between
subsonic and supersonic turbulence
Pineda et al. (2011)



Pineda et al. (2010)

EVLA Open Shared Risk Observation of a dense core:
-First observation of embedded filaments
-Little variation in velocity dispersion: thermally dominated



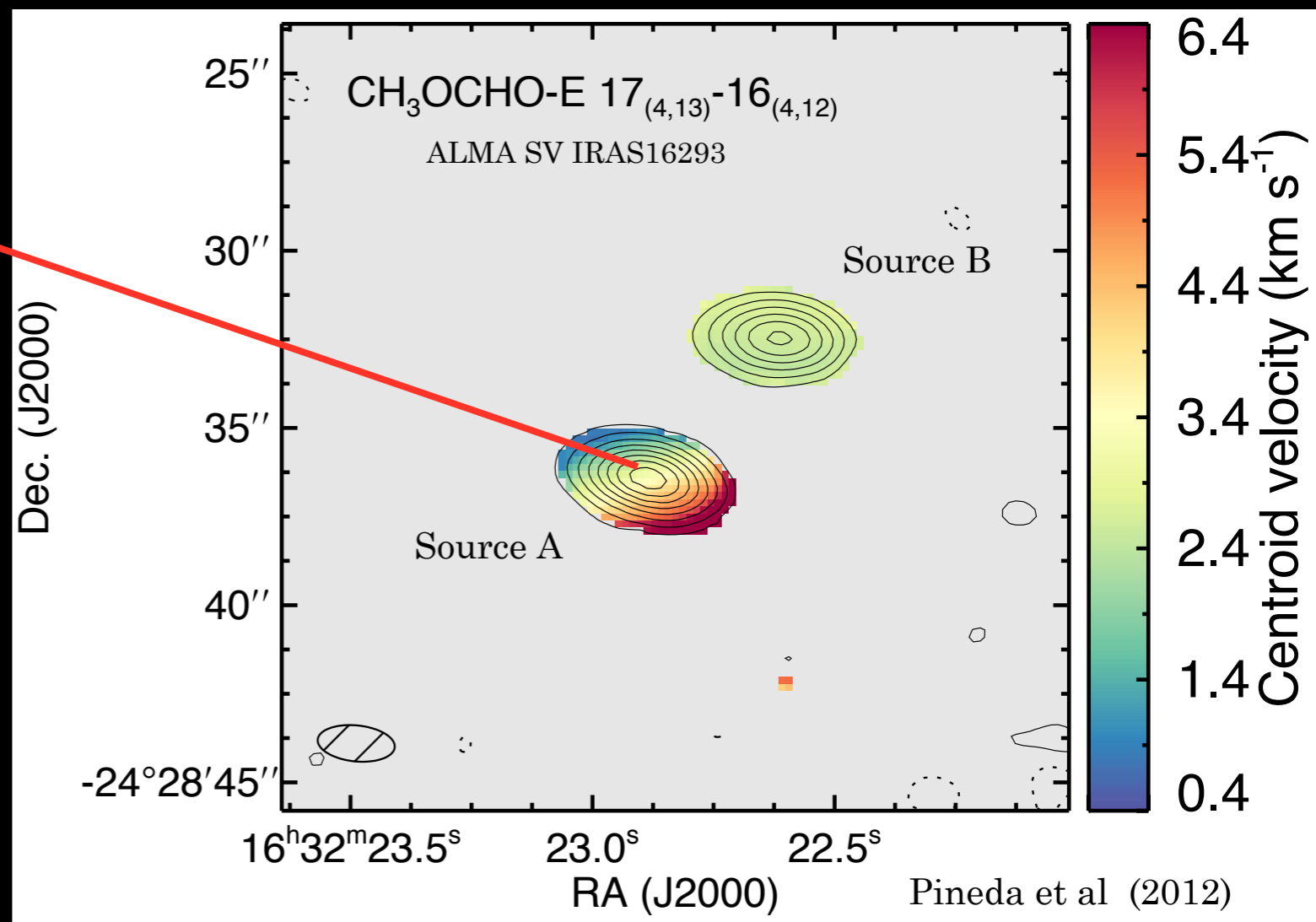
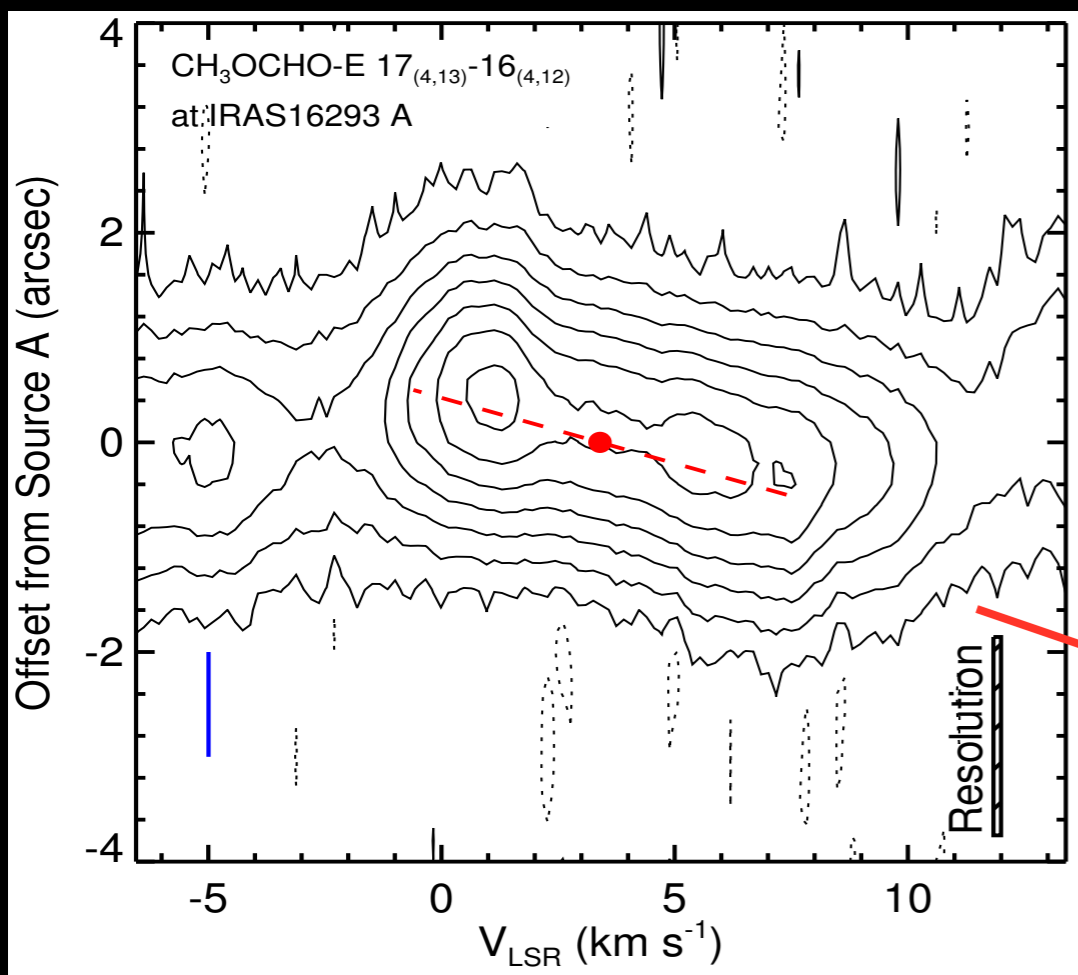
ALMA Science Verification
observations of protobinaries:
-First detection of infall
towards IRAS16293-B
-Study of rotation using
molecular lines

Pineda et al. (2012)

With ALMA (focusing on 1 line)

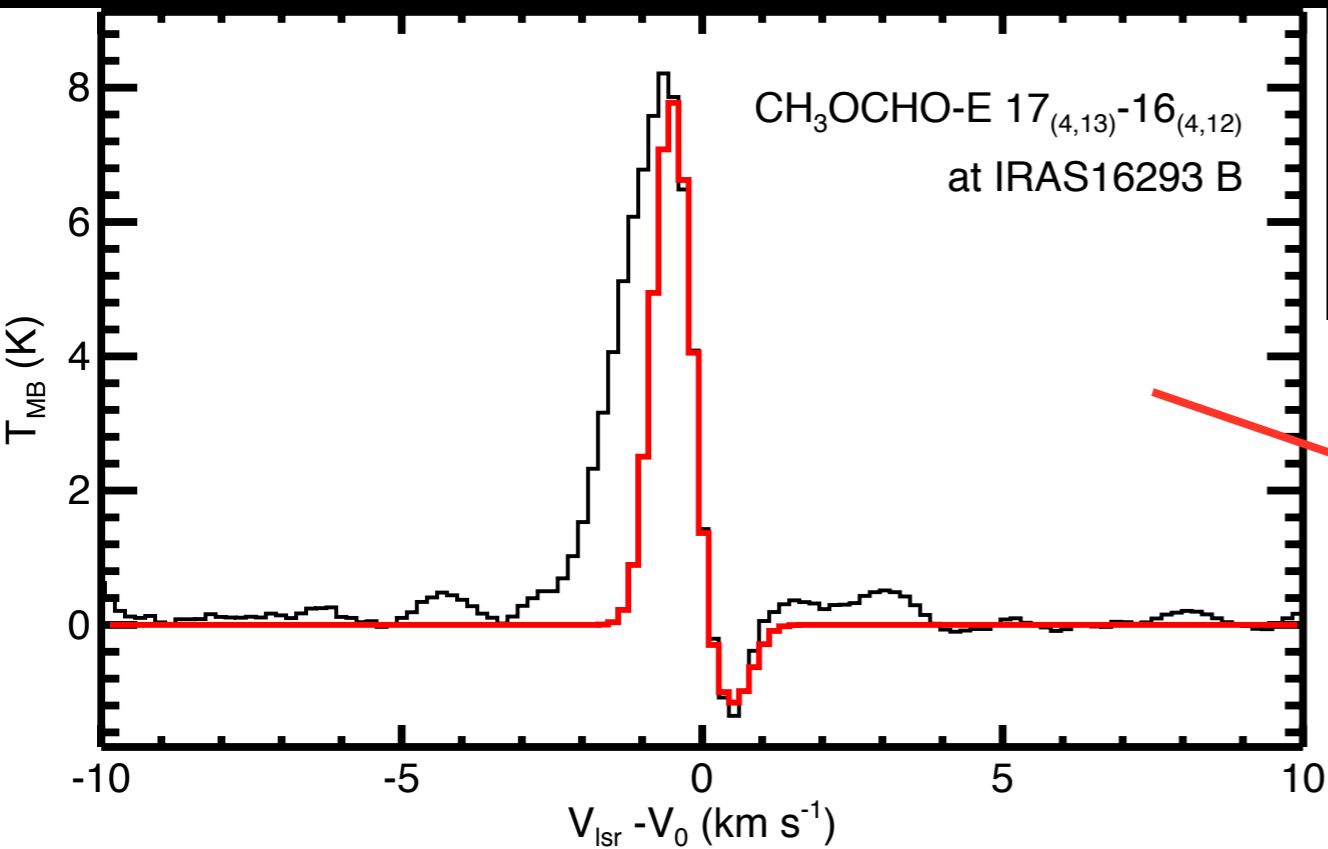
Rotation!! (Disk or close binary)

Enclosed mass $\sim 0.5M_{\text{sun}}$

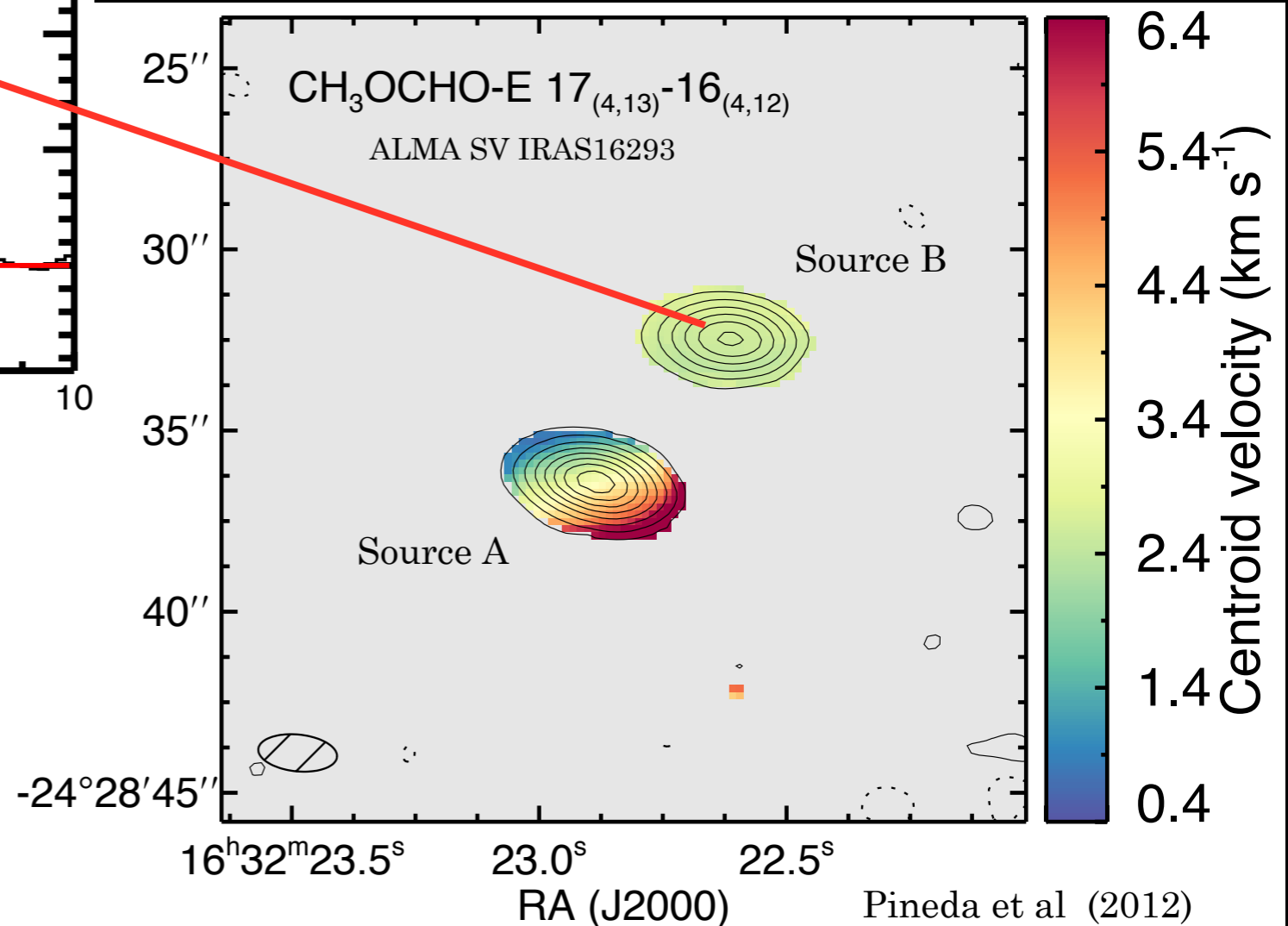


Close to edge on

With ALMA (focusing on 1 line)



Infall profile!!
Supersonic infall (~ 0.3 km/s)



No velocity gradient!?
Disk almost face-on