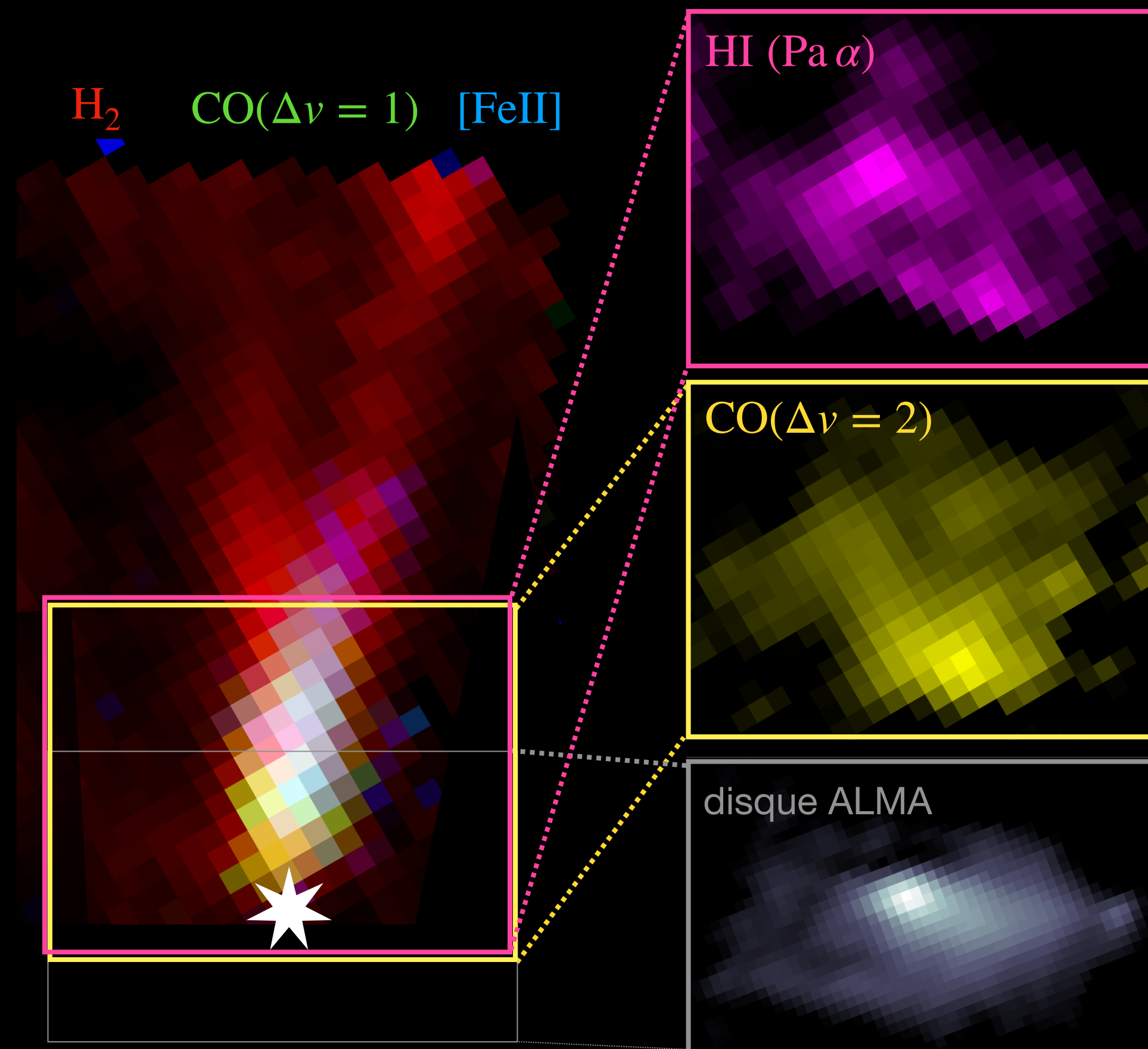


# The accretion/ejection properties of Class 0 protostars studied with near-infrared spectroscopy

Exploring the new observations of SMM3

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## NIRSpec-ALMA view of the SMM3 Class 0 protostar



## Observational constraints brought by NIRSpec and ALMA on:

### The accretion properties :

- HI emission lines
- Modeling of the near-IR scattered light
- Extinction and system geometry
- Stellar mass from disk rotation

### The ejection properties :

- $H_2$
- FeII
- CO ro-vib. ( $\Delta\nu = 1$ )
- CO rotational

$$\dot{M}_{acc} \sim 1.6 - 2.3 \times 10^{-6} M_{\odot} \text{ yr}^{-1}$$
$$\dot{M}_{jet} \sim 2.6 \times 10^{-7} M_{\odot} \text{ yr}^{-1}$$

The JWST/ALMA synergy reveals fundamental quantities of protostars!