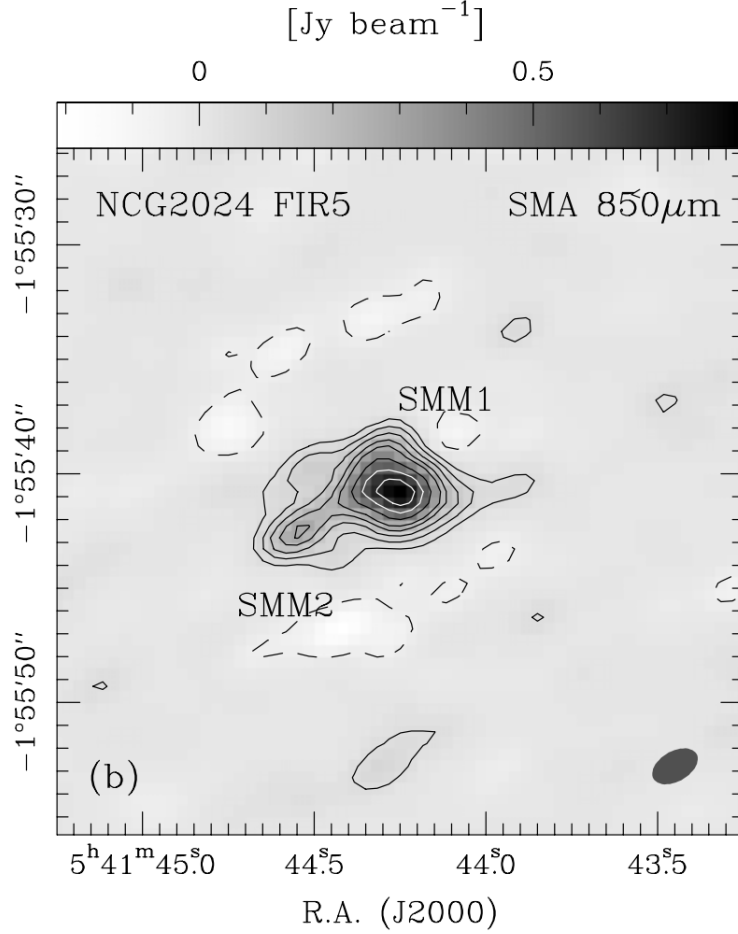


We aim to study star-forming region NGC 2024 FIR5 in the Orion B molecular cloud at a distance of  $\sim 415$  pc (Alves et al. 2011). The cloud harbors a binary system SMM1 and SMM2 with masses of  $\sim 1.7 M_{\odot}$  and  $0.7 M_{\odot}$  and a separation of  $\sim 4''$  from previous SMA observations at  $850 \mu m$  (Fig. 1; Chen et al. 2013). We request continuum observation at 1.3 mm in EXT configuration. The existing SMA  $850 \mu m$  data of NGC 2024 FIR5 with a resolution of  $2.2'' \times 1.3''$  shows a flux level of 42 mJy/beam near the edge of the source. Scaling to the EXT beam size of  $1.1'' \times 1.0''$ , the expected flux level at 1.3 mm would be 5.6 mJy/beam for a typical spectral index of -2.5. Based on the sensitivity estimator, one  $\sim 4$  hour EXT track will give a rms of 0.39 mJy/beam, enough to provide  $> 10\sigma$  detection.



**Figure 1.** SMA  $850 \mu m$  dust continuum image of NGC 2024 FIR5 overlapped by contours of  $-3\sigma$ ,  $3\sigma$ ,  $6\sigma$ ,  $10\sigma$ ,  $15\sigma$ ,  $20\sigma$ ,  $30\sigma$ ,  $40\sigma$ , and  $50\sigma$  with  $1\sigma \sim 14$  mJy/beam. The figure is extracted from Chen et al. (2013).

#### Reference

Alves F. O., et al., 2011, ApJ, 726, 63; Chen X., et al., 2013, ApJ, 768, 110