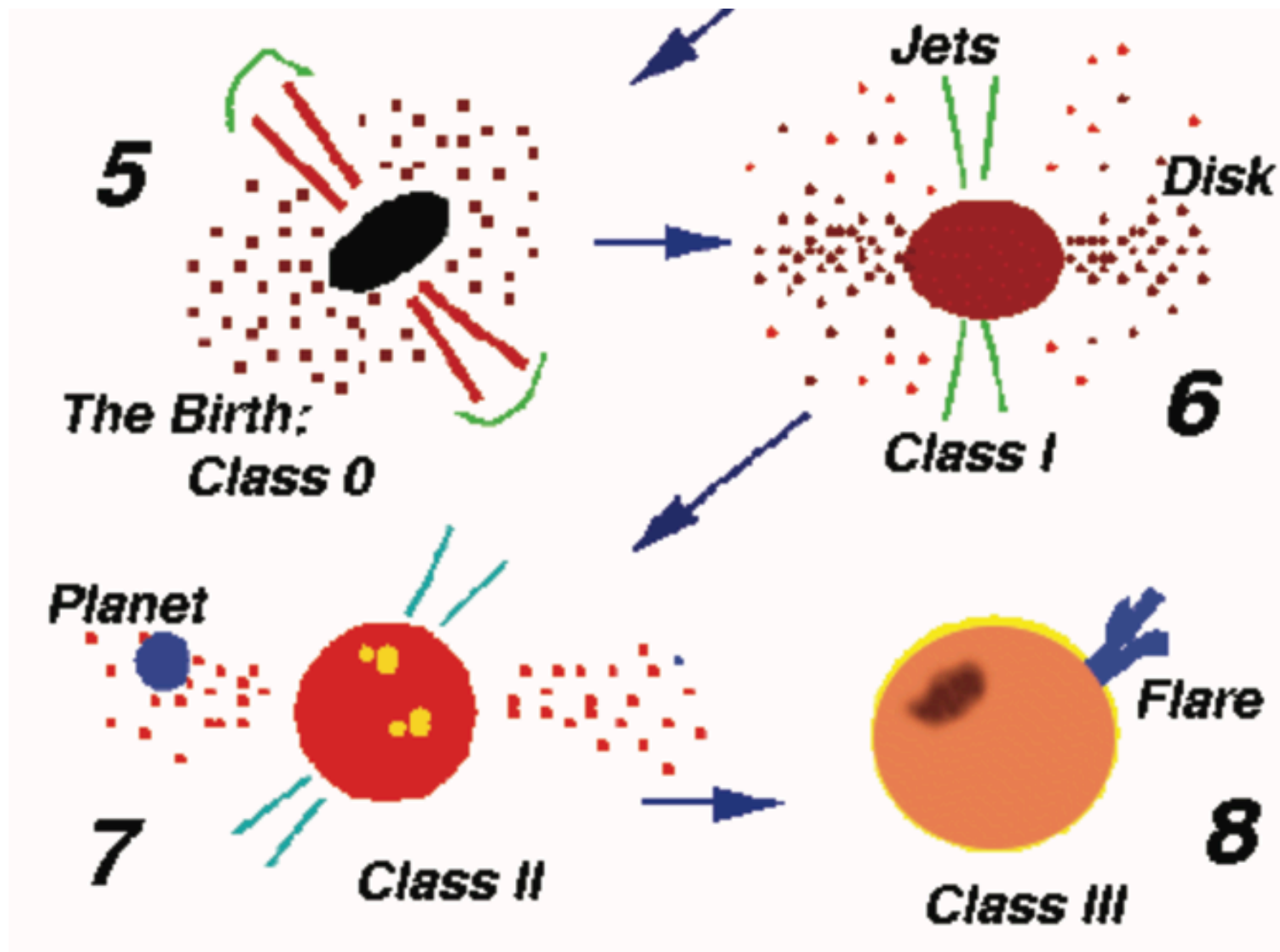
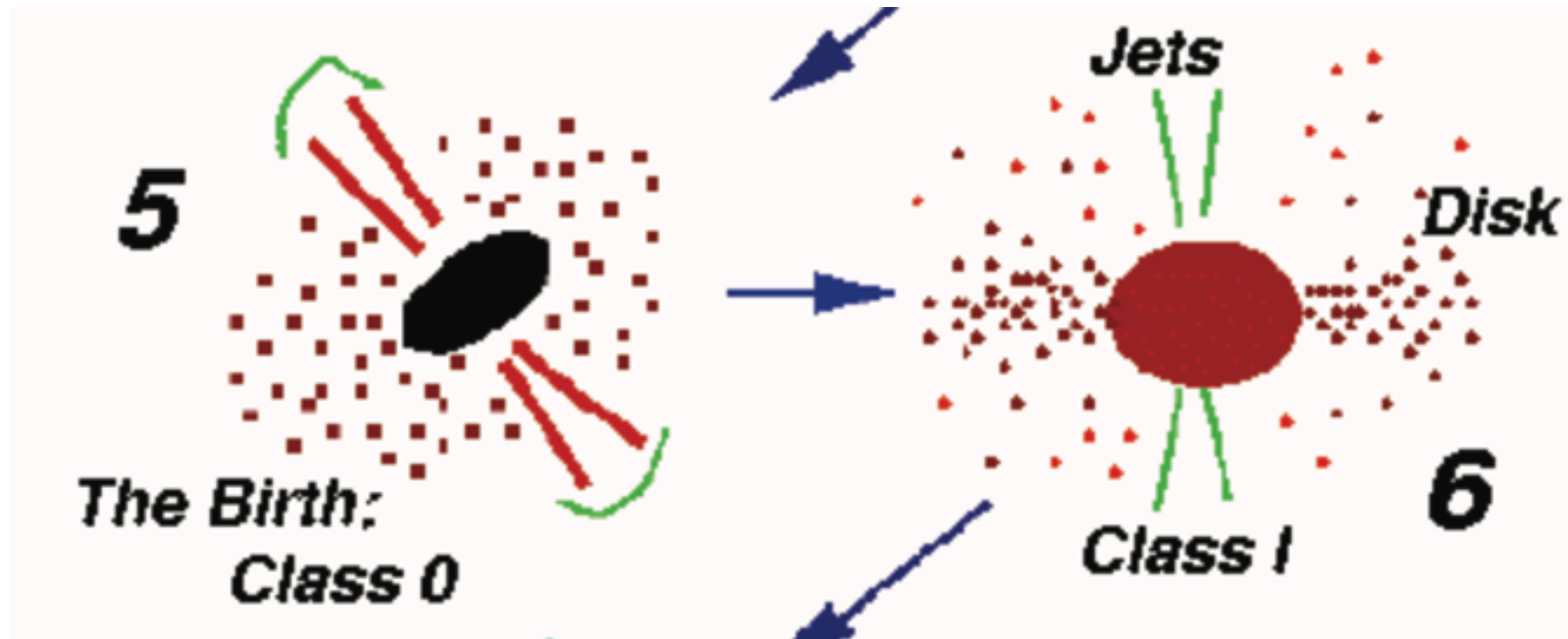


Per55

윤동환

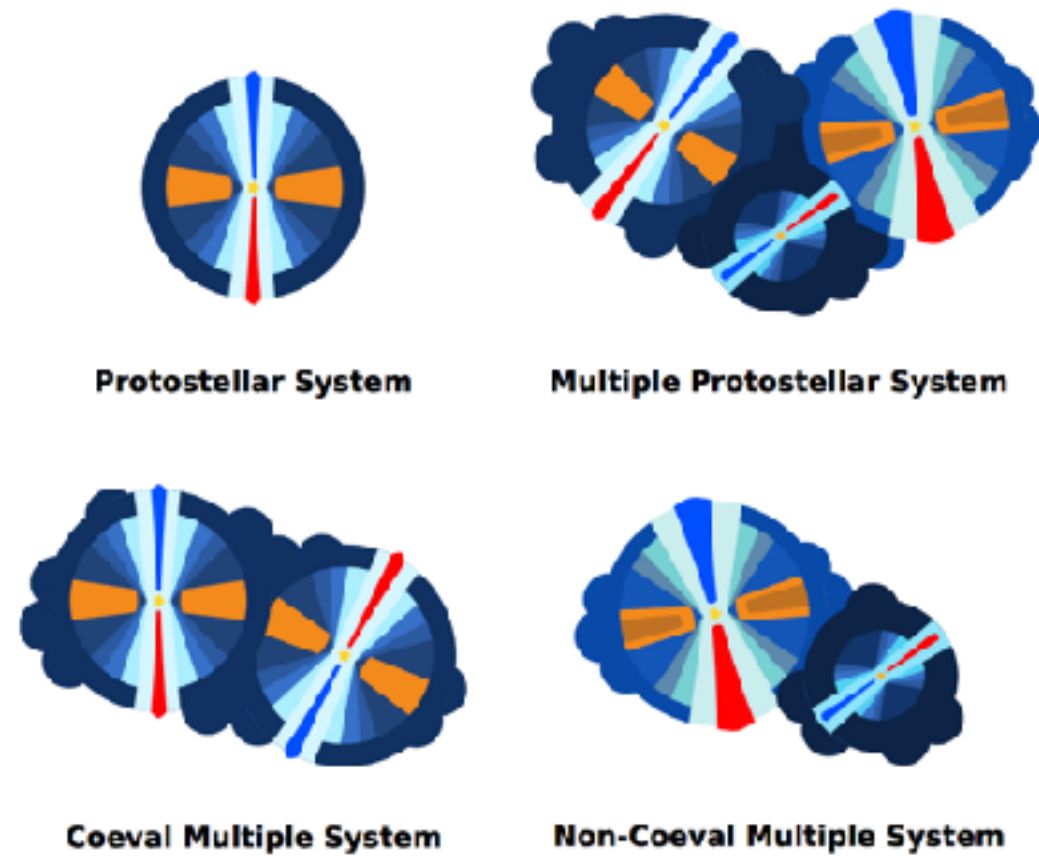
ALMA Alchive from PI: John Tobin



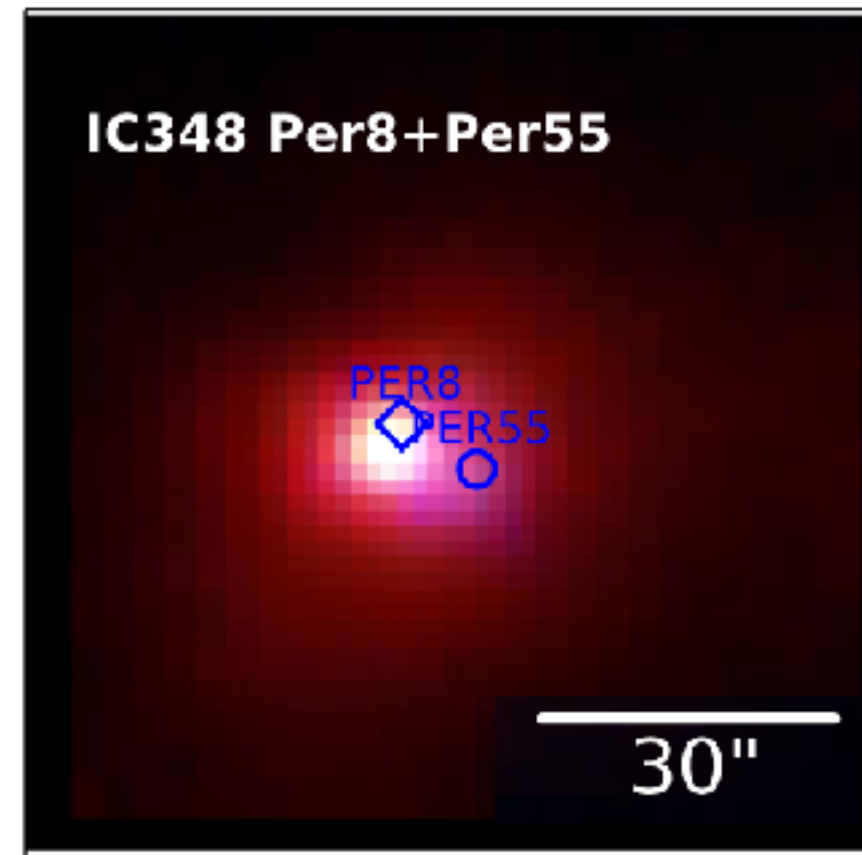


두꺼운 대기
밀리미터, 서브밀리미터에서 퍼진 맵
 $M^* < M_{env}$
 $T_{bol} < 80K$

- $0 < \alpha < 3$, with $\alpha = 2\mu m < \lambda < 25\mu m$
- $80K < T_{bol} < 650K$

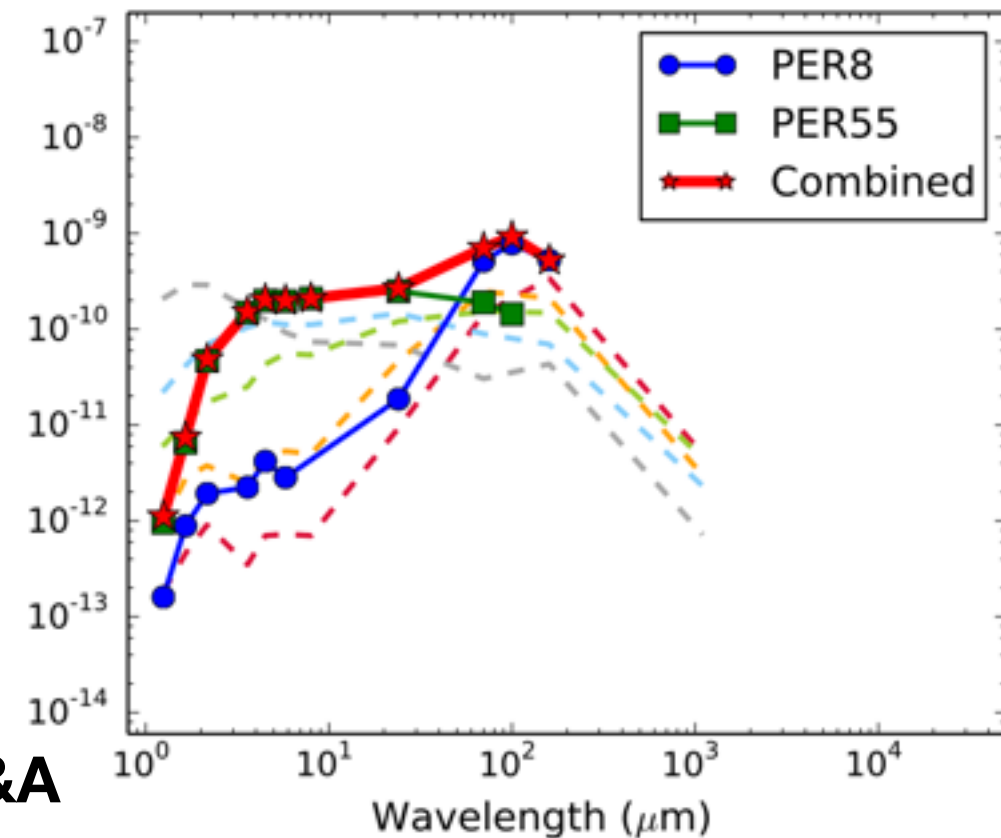


Herschel PACS



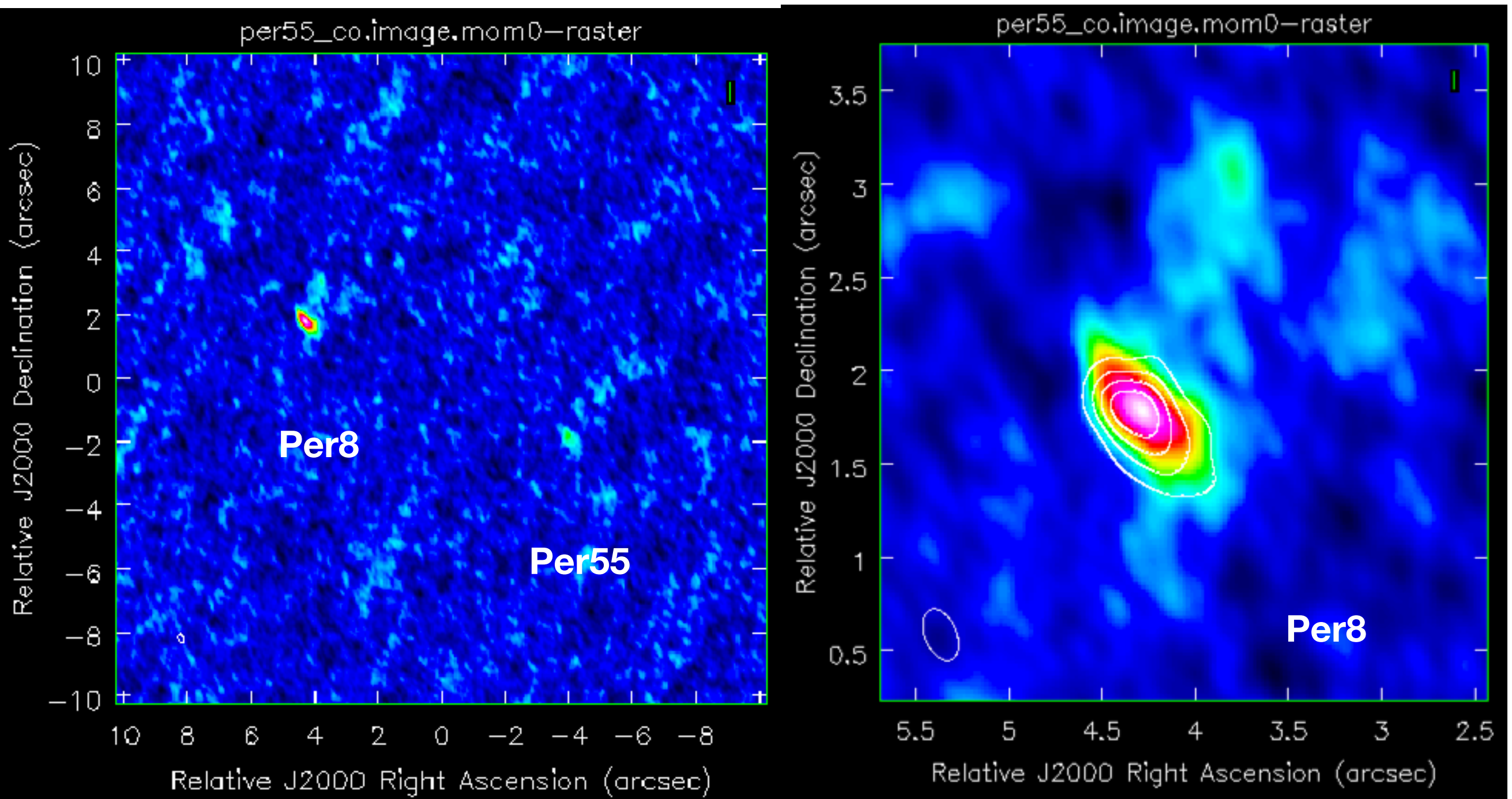
SA:9.6"

- Multiplicity is common among protostellar system.
- SED 와 T_{bol} 을 이용하여 추정한 class
 - Per8 : late 0
 - Per55 : late 1



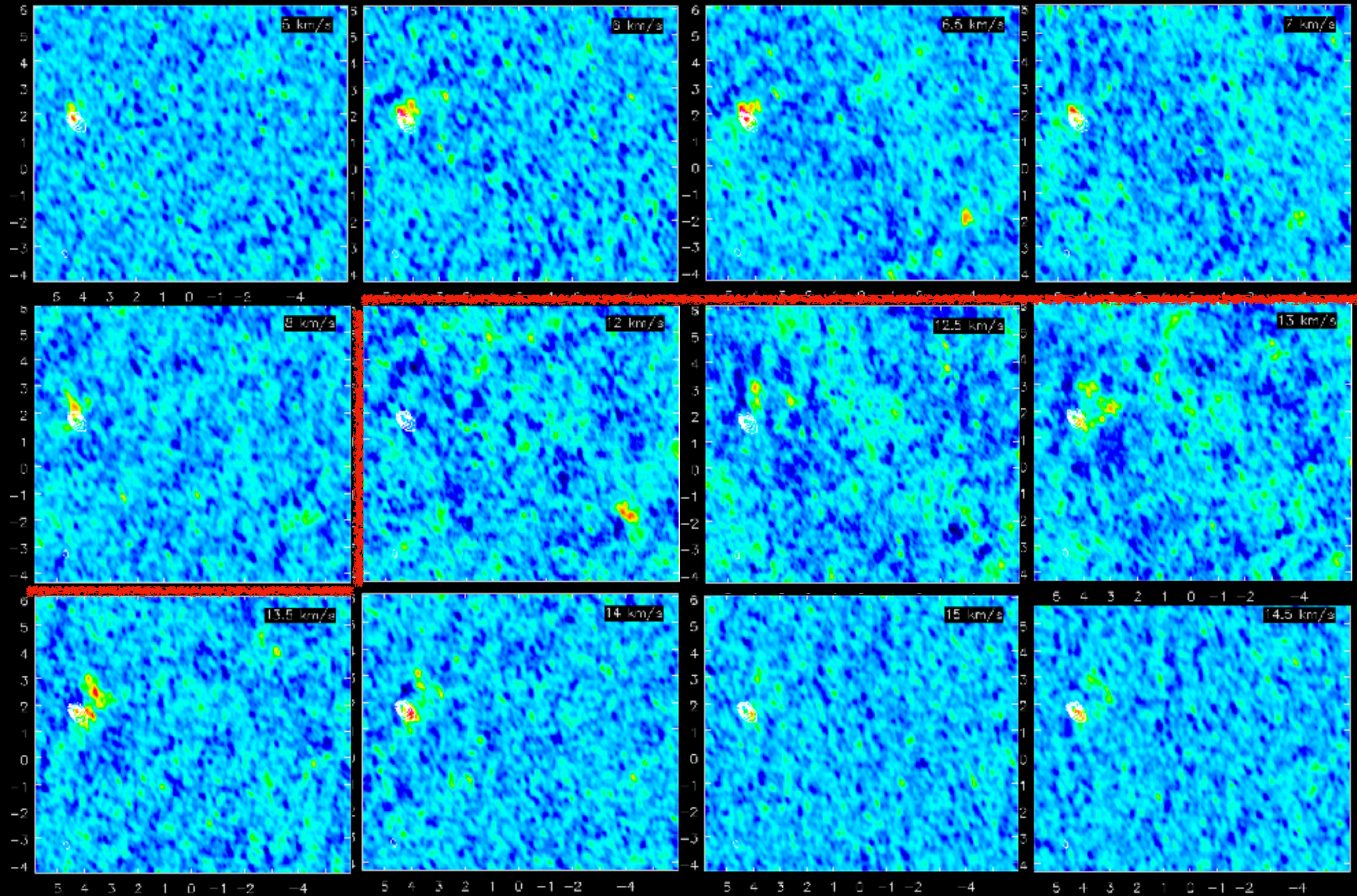
Mulillo et al. 2016 A&A

continuum and 12CO line(moment0) image



실제 검출된 컨티누움 이미지는 대상천체인 Per55가 아닌 Per8 이다.
컨티누움 rms : $3.737 \times 10^{-4} \text{ Jy/beam}$, 컨티누움 peak : $2.073 \times 10^{-2} \text{ Jy/beam}$
 ^{12}CO 라인 peak : $0.574(\text{per8})$, $0.209(\text{per55}) \text{ Jy/beam*km/s}$,

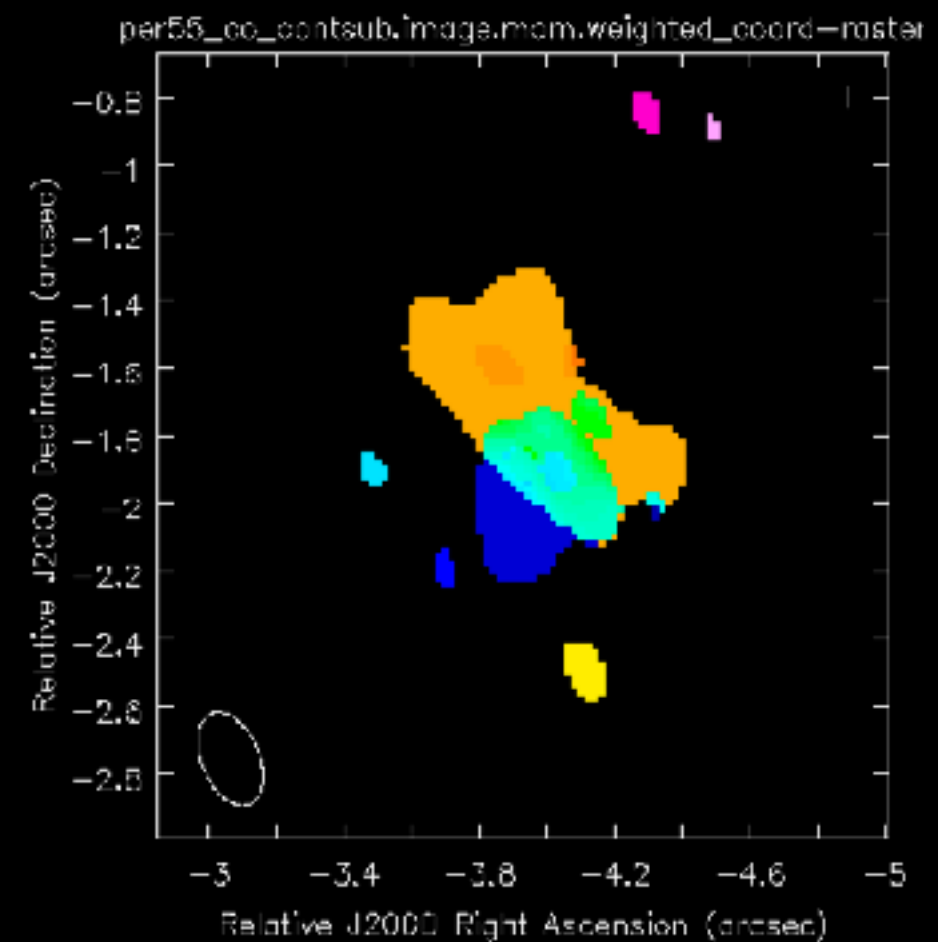
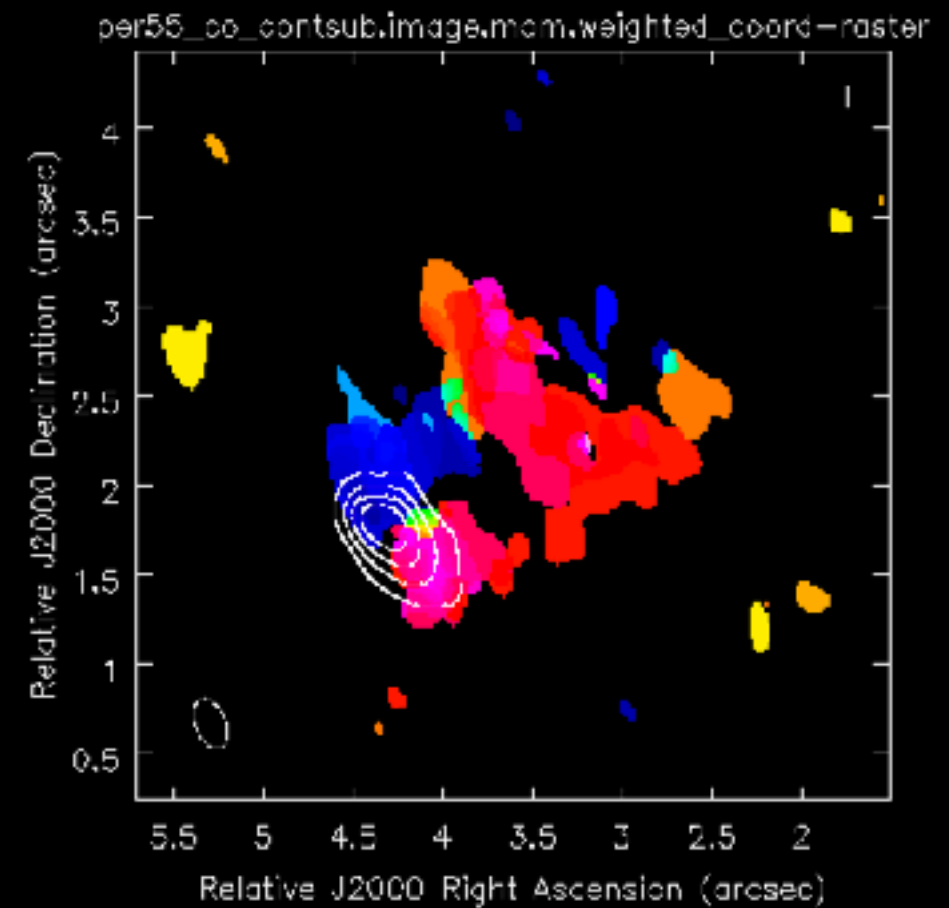
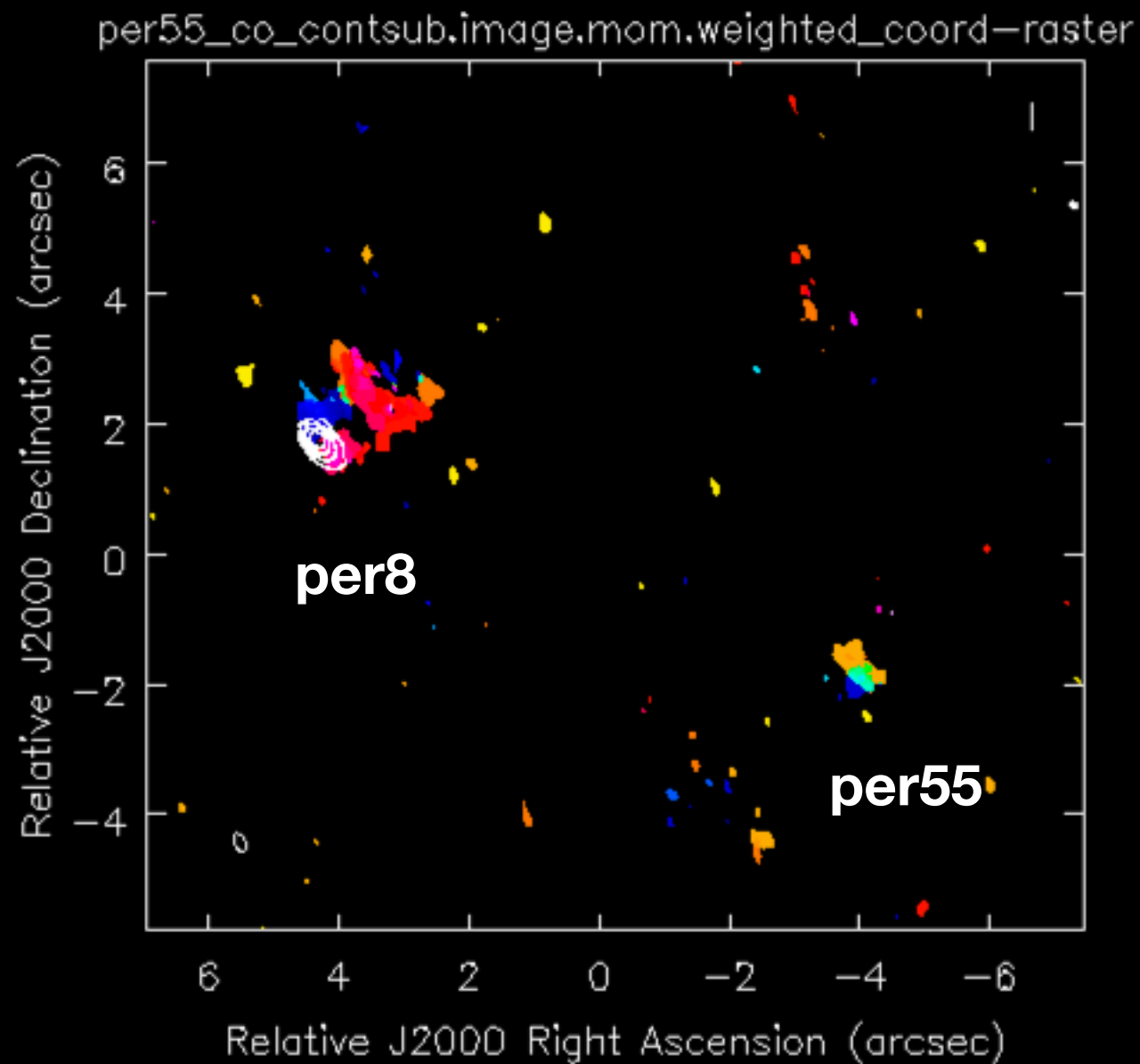
Blue-shifted



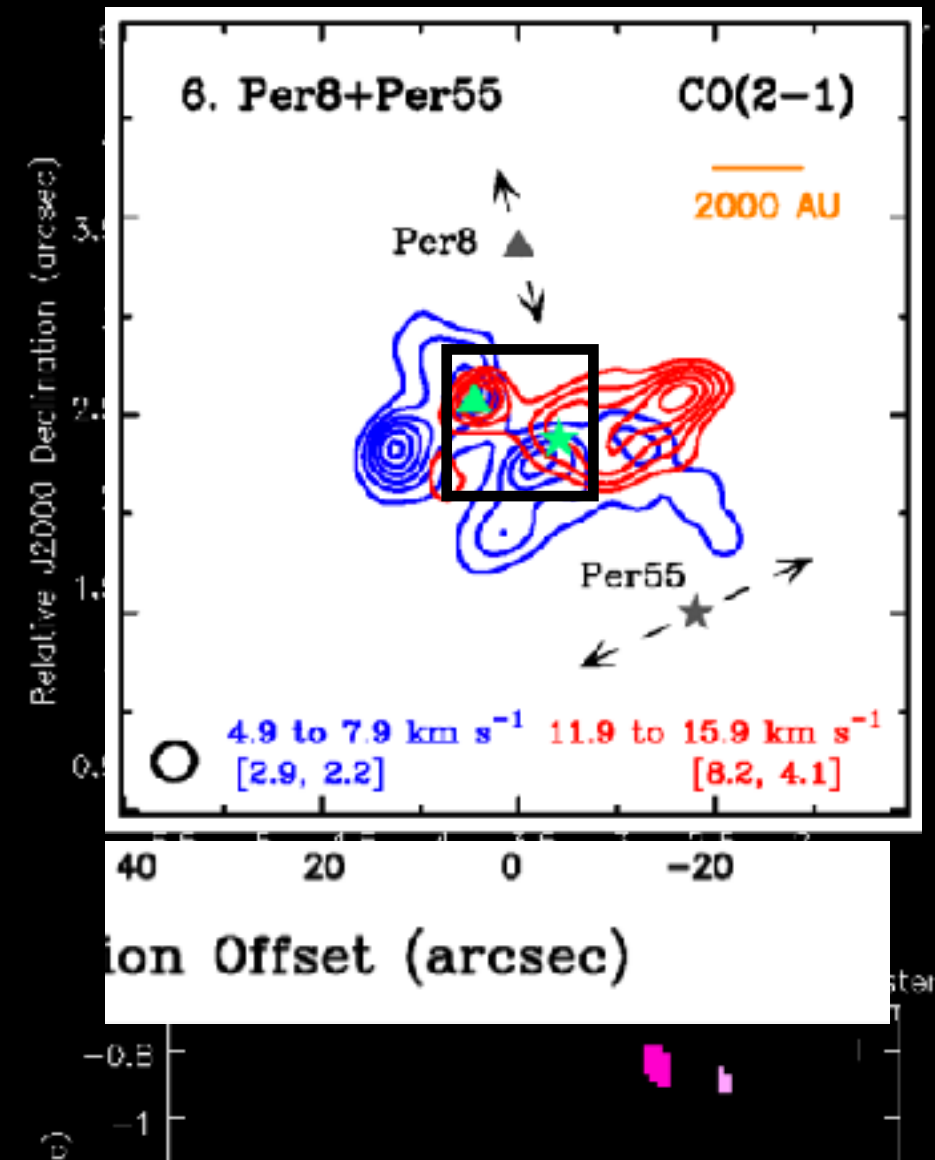
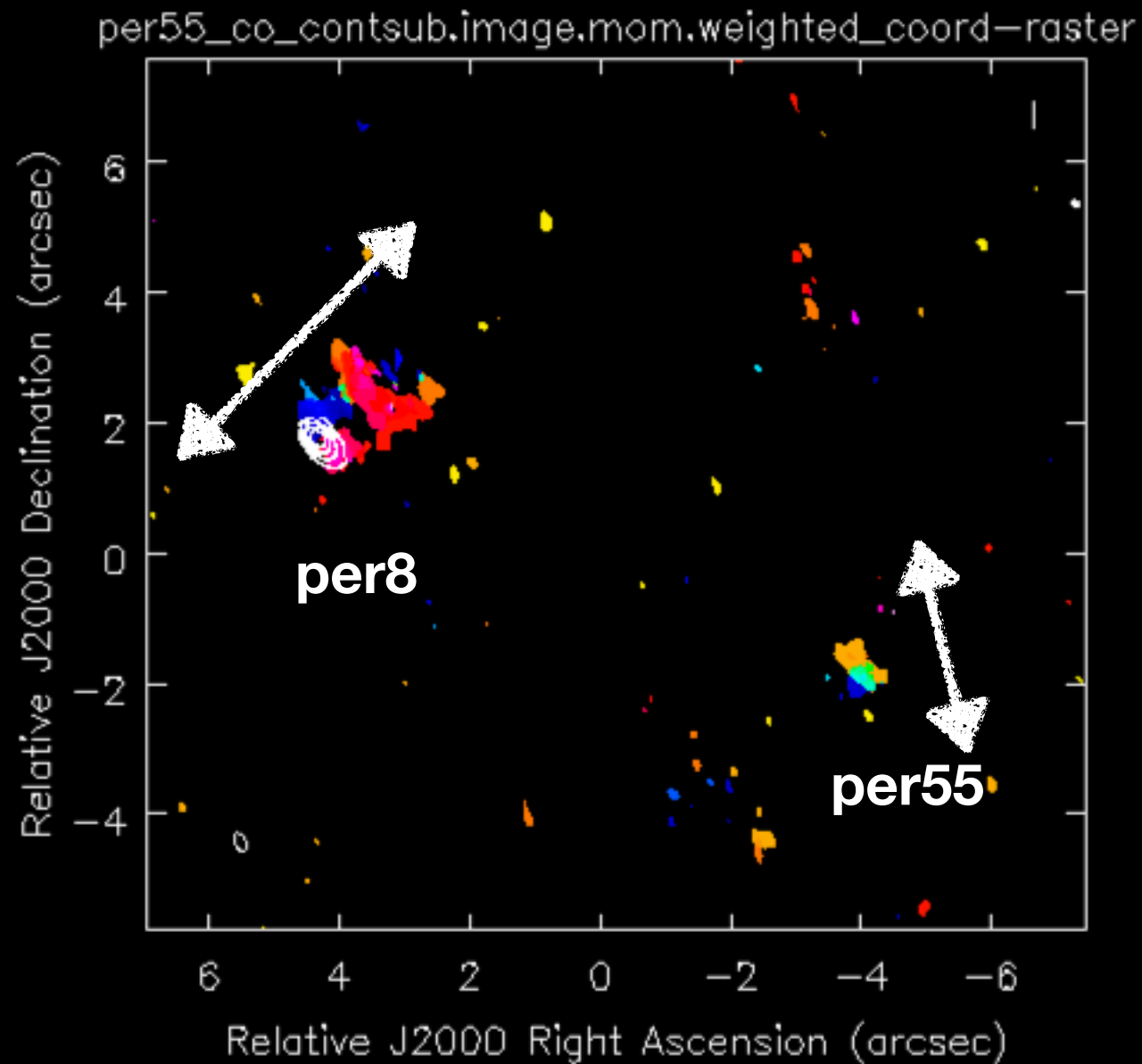
^{12}CO 라인 채널맵 rms : $1.004\text{e-}2\text{Jy/beam}$

Red-shifted

Moment1 map

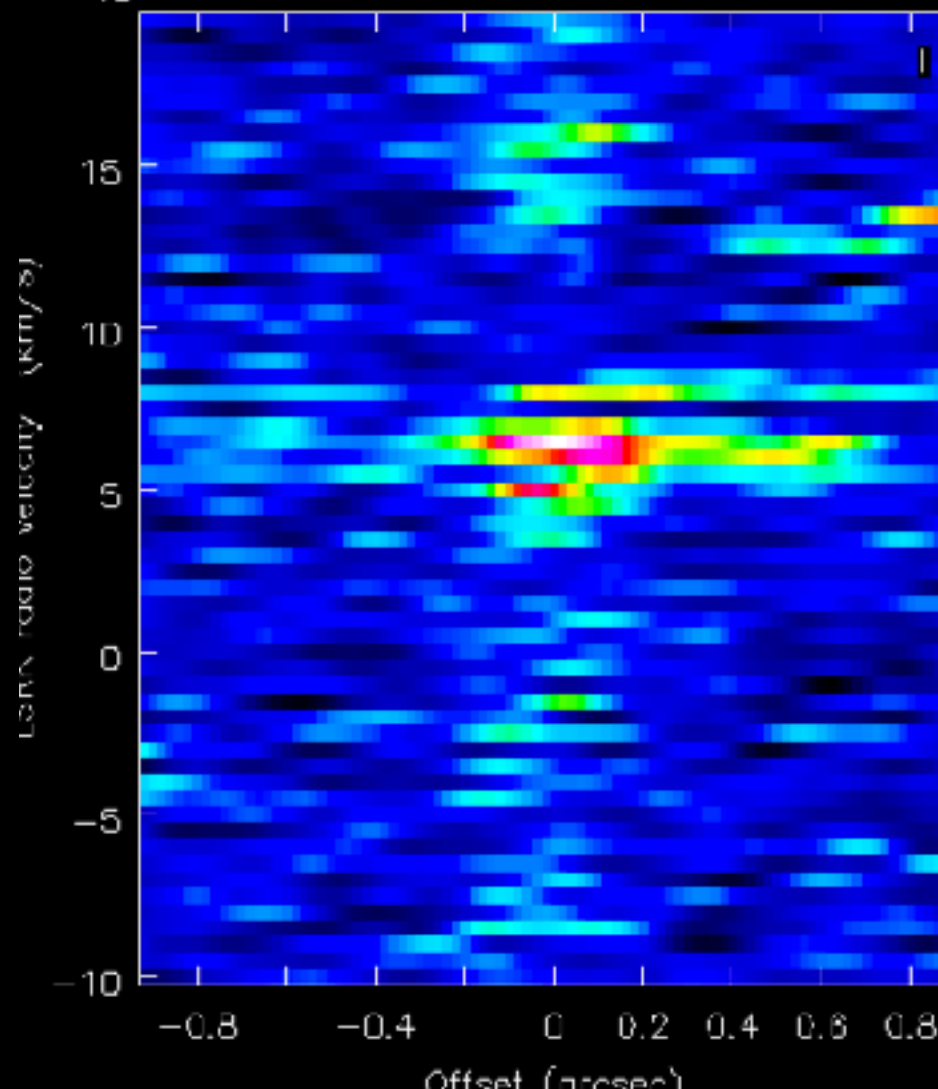
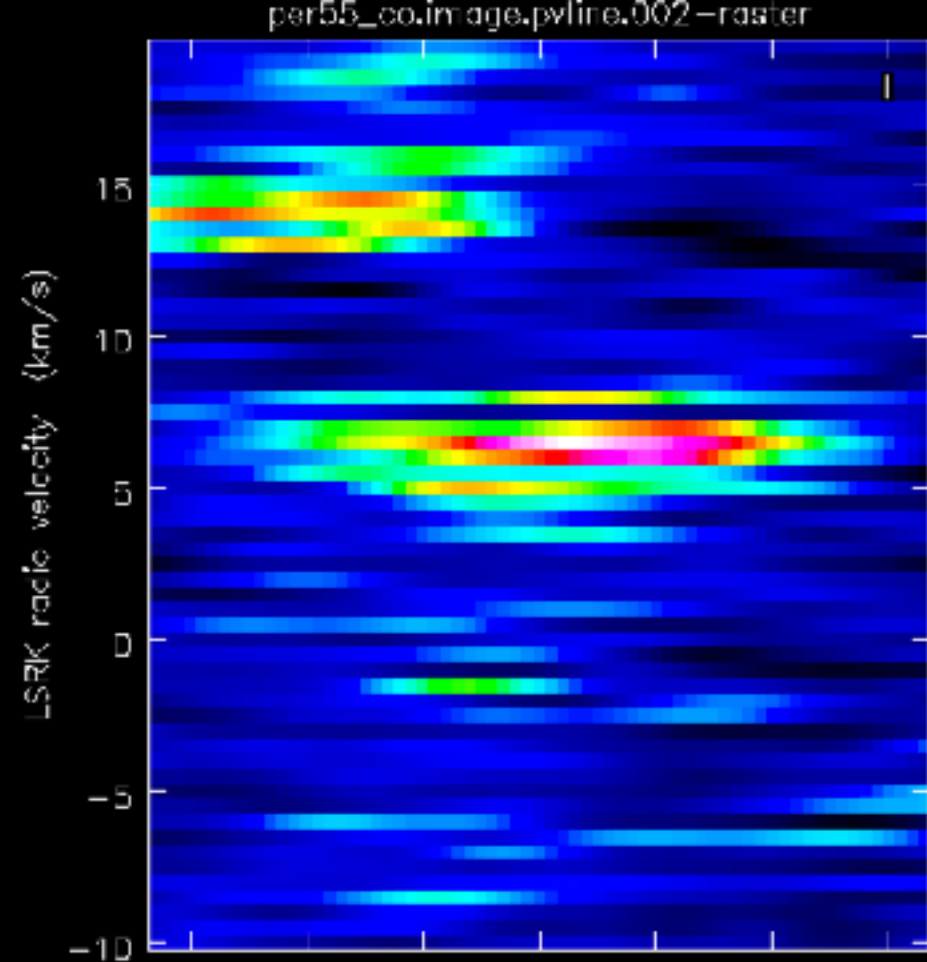
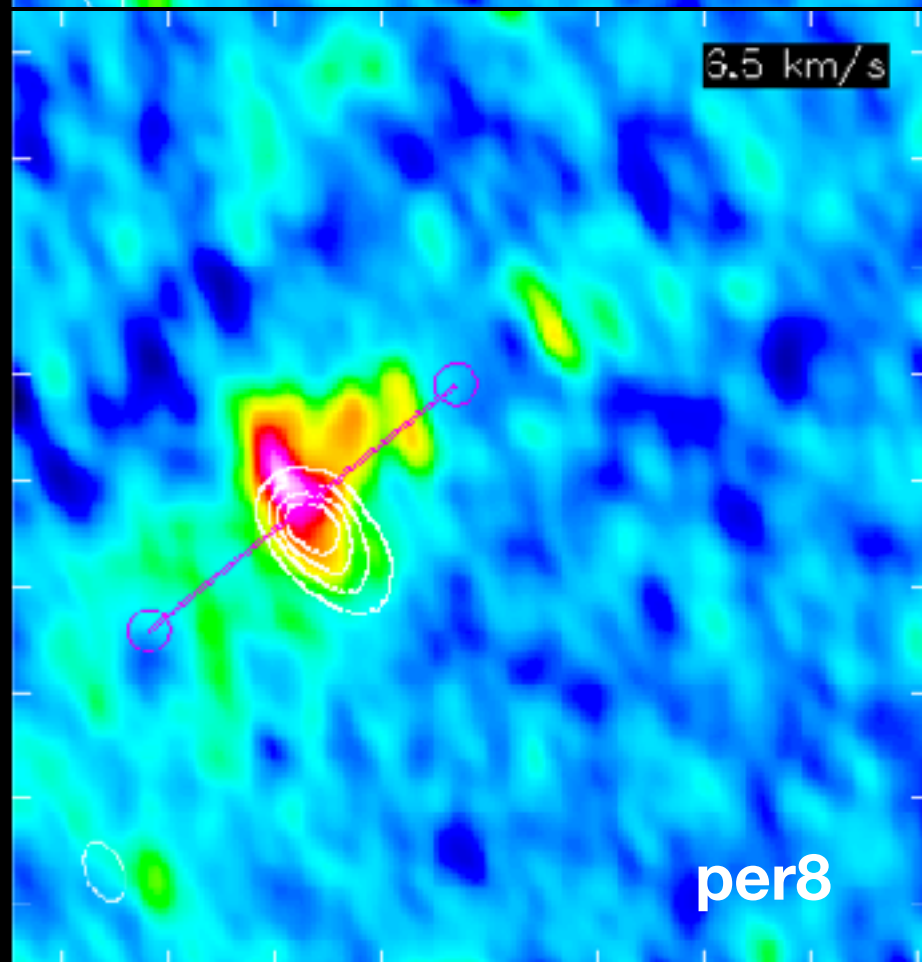
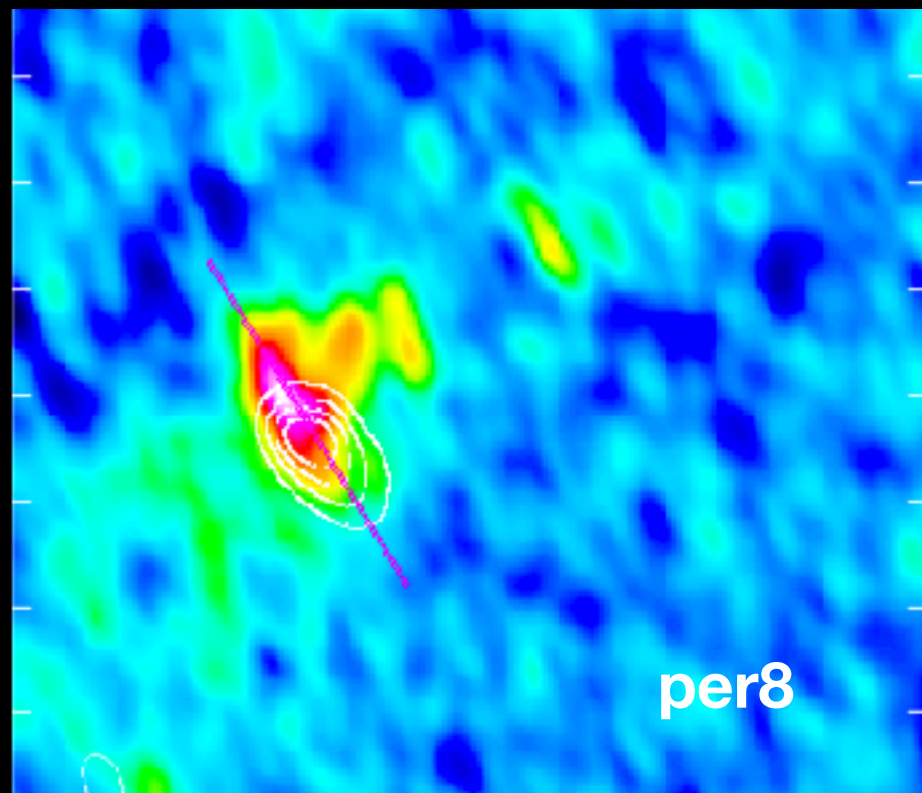


Moment1 map



- Katheline et al. 2016
- SMA 12CO line
- Per55 컨티늄 검출 안됨

Relative J2000 Right Ascension (arcsec)



PV-diagram

Moment2 map

