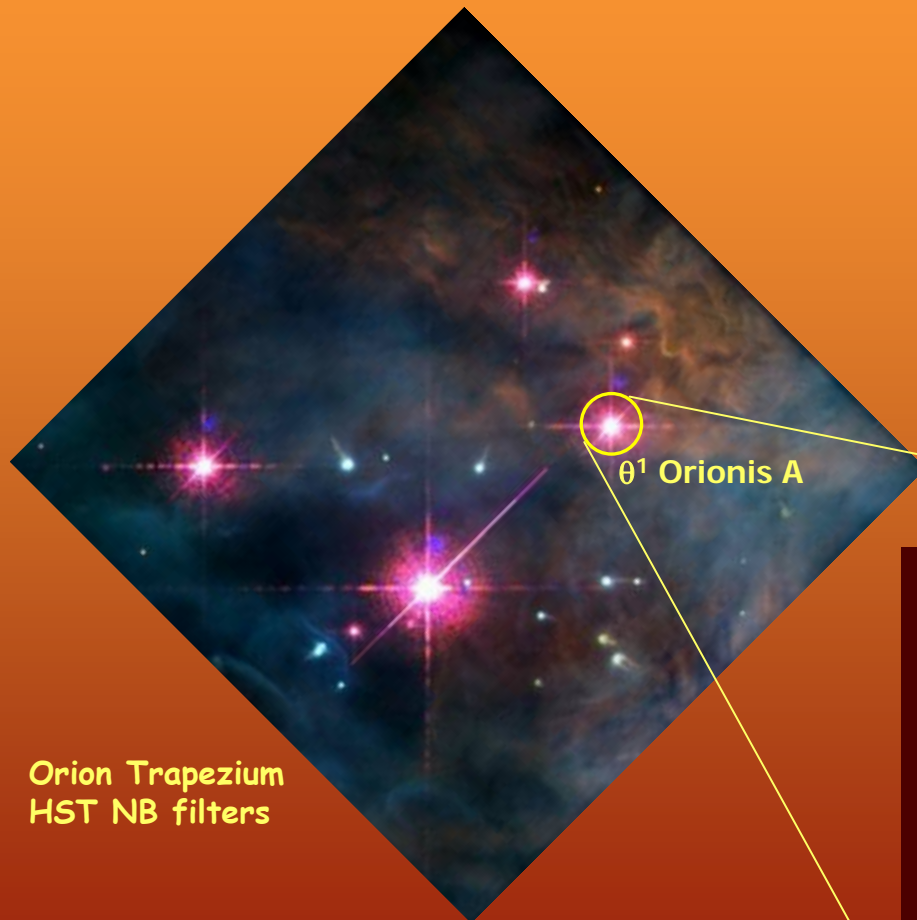


# The enigmatic radio-emission from $\theta^1$ Orionis A

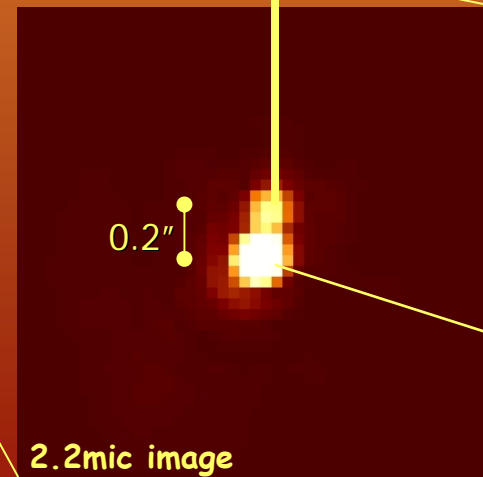
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Monika Petr-Gotzens (ESO Garching) and Maria Massi (MPIfR Bonn)



Strong radio emitter

Flux levels: from 5mJy - 90mJy  
VLA/VLBI  
(Churchwell et al. 87, Felli et al. 91)



Spectroscopic  
binary

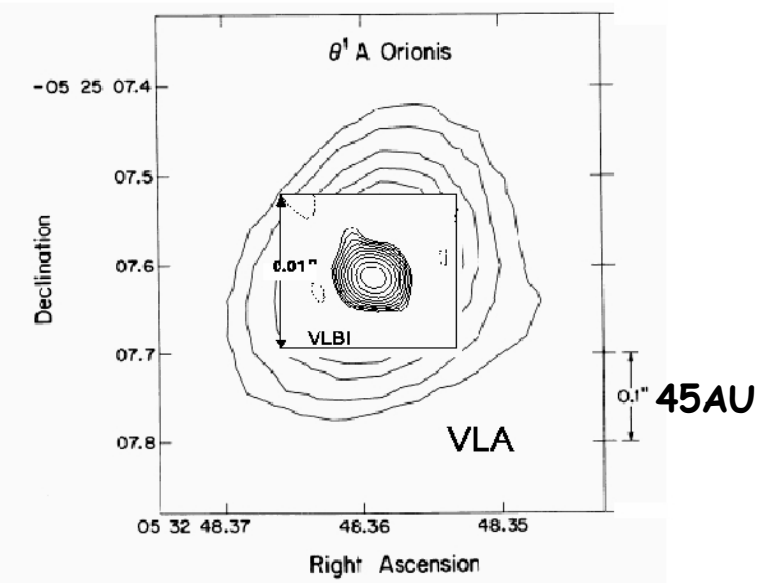
B0.5V + TTauri

VLA (Churchwell et al. 87)

+

VLBI (Garrington et al. 02)

↓  
Large and small-scale radio structure

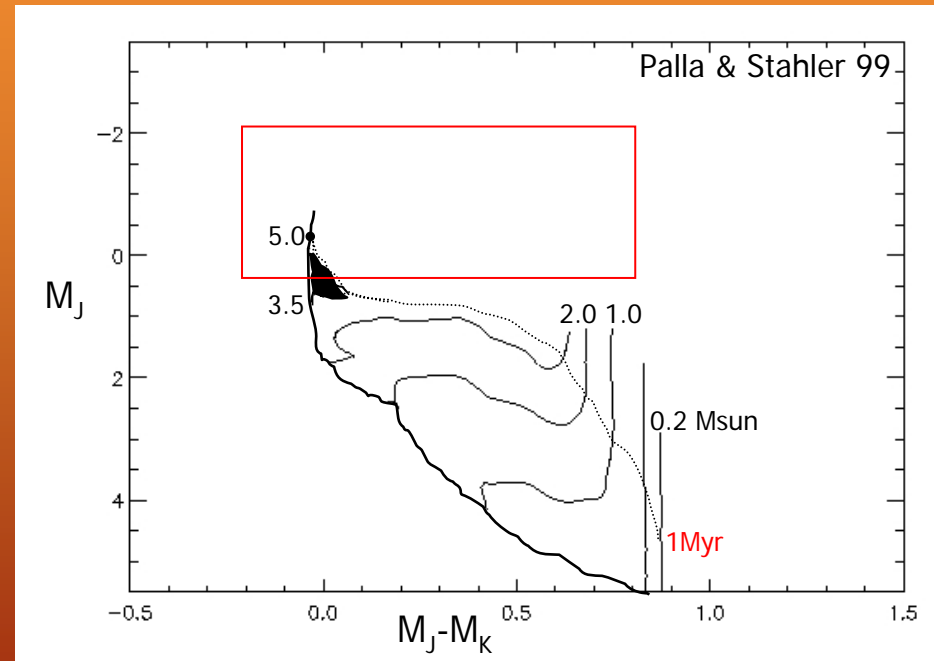


Non-thermal compact (but resolved) component with size  $\sim 0.45$  AU

Near-infrared photometry data



Near-infrared color-magnitude diagram



large magneto structure

$a > 3.5 M_{\odot}$  pre-main sequence star



magnetic intermediate mass young star with star-circumstellar disk interaction