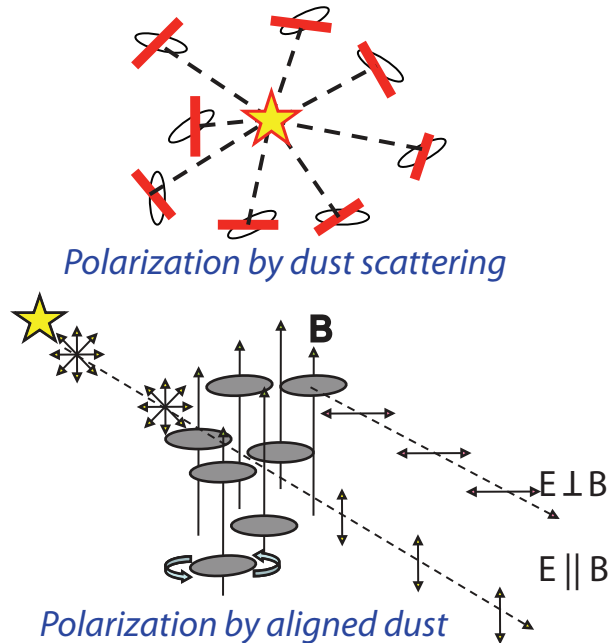


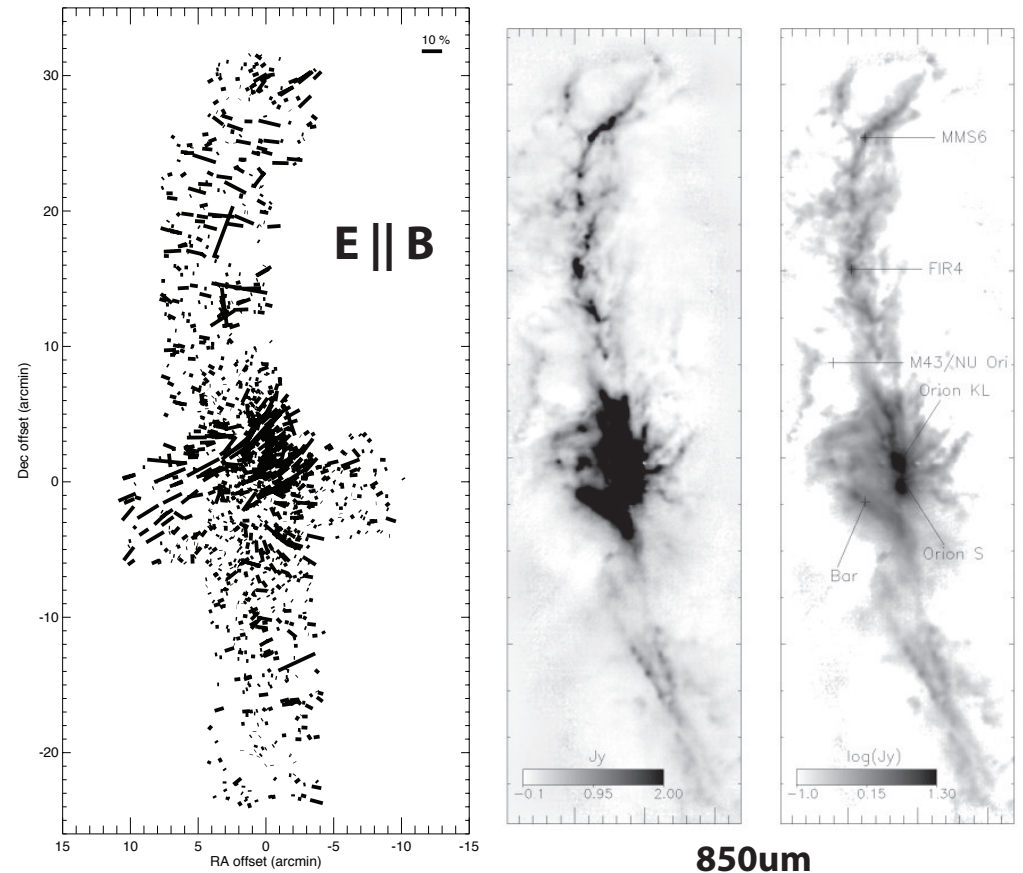
Near Infrared Polarimetry of Orion A molecular cloud

NIR polarimetry



1. Dust scattering polarization
 - Infrared Reflection Nebulae (IRNe)
 - Illuminating source
2. Interstellar polarization
 - Polarization by aligned dust grains (dichroic extinction)
 - Magnetic field orientation (E || B)

H-band polarization



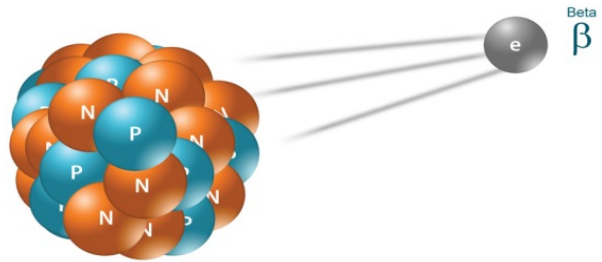
**H-band
(1.63um)**

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Gum Ja Naw Bumchyang

Visiting Research Student@NARIT
University of Mandalay, Myanmar.



Background Physics

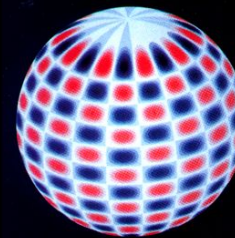
Theoretical Nuclear Physics

Research Interest

- ★ Non-radially pulsating stars
- ★ Asteroseismology

nonradial oscillations

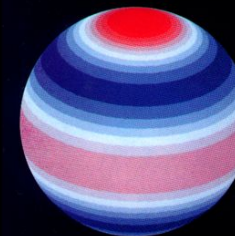
$l=20, m=10$



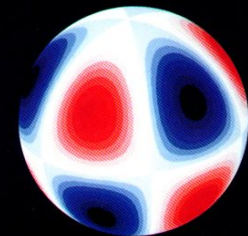
$l=4, m=1$

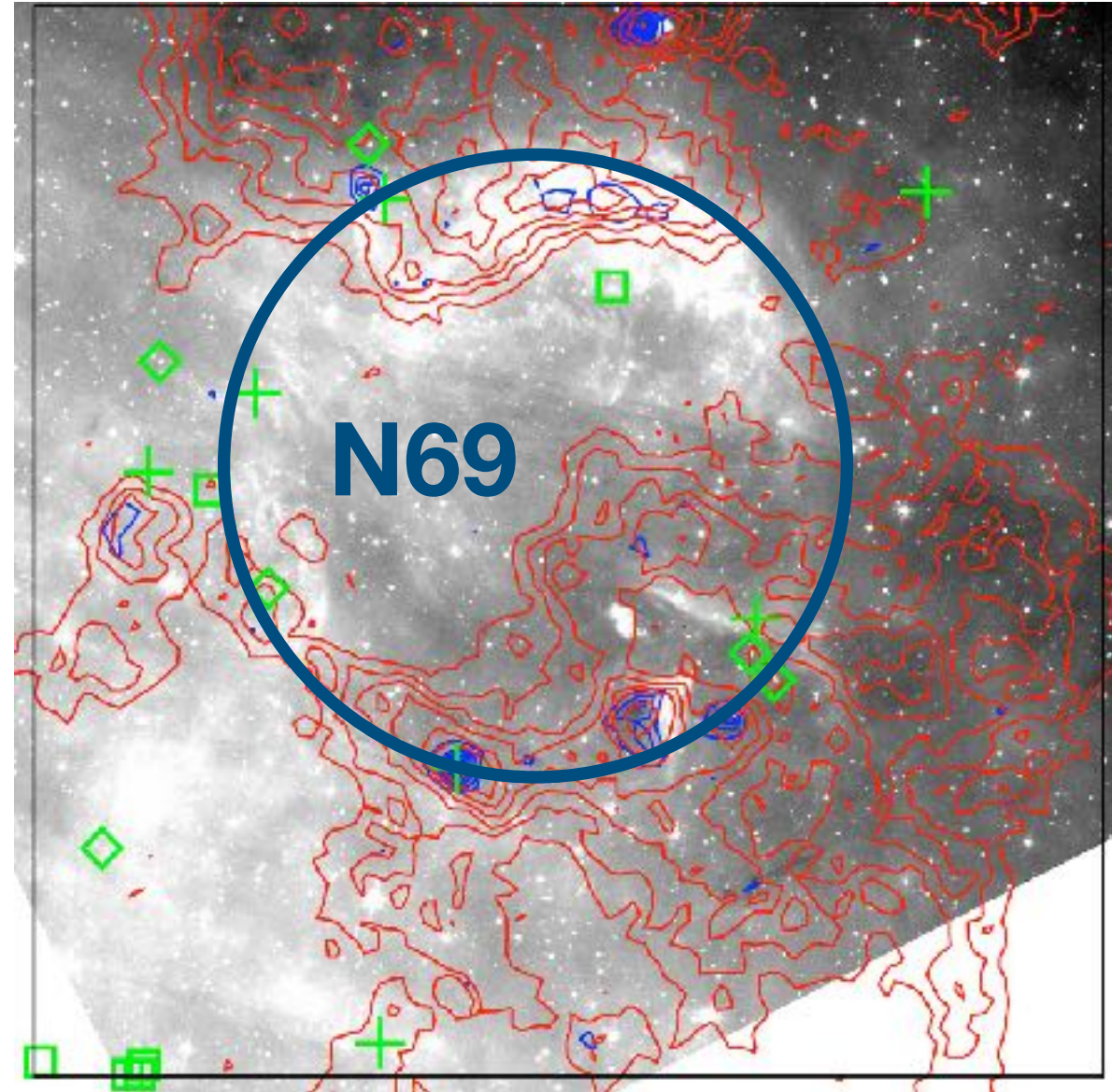
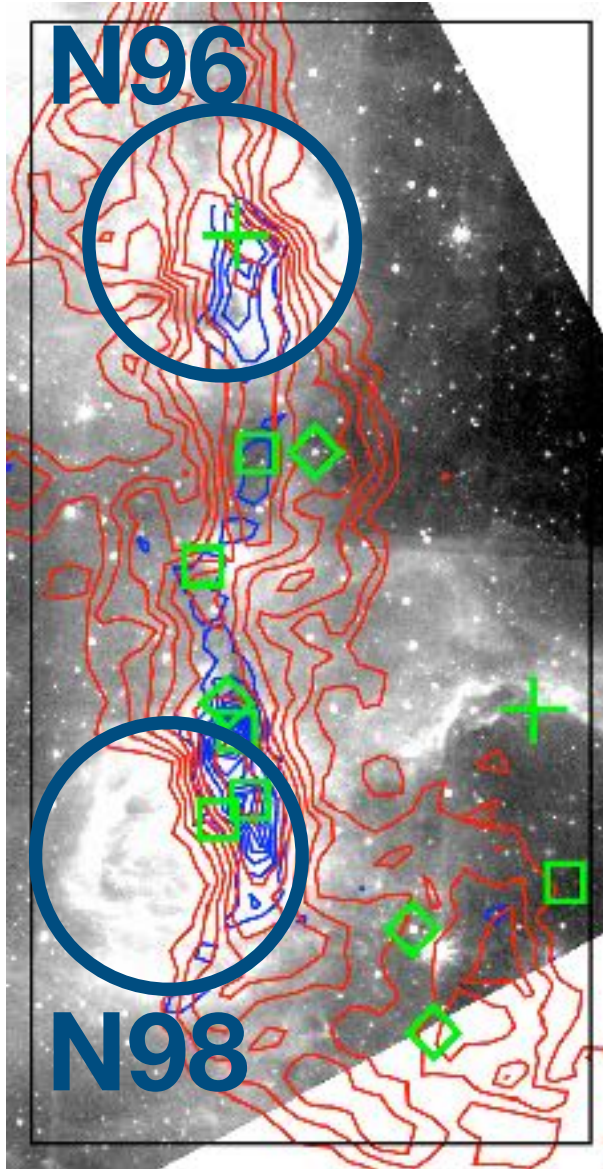


$l=4, m=0$



$l=4, m=3$





Red: GRS CO; Blue: ATLASGAL cold dust

Observations and archival data:

- Optical observations (spectral type of ionizing, source, foreground extinction, age of members stars).
- Infrared observations (YSOs identification, Spectral energy distribution, PAH emission)
- Radio Continuum (emission from ionised gas; dynamical age)

Research Interest:

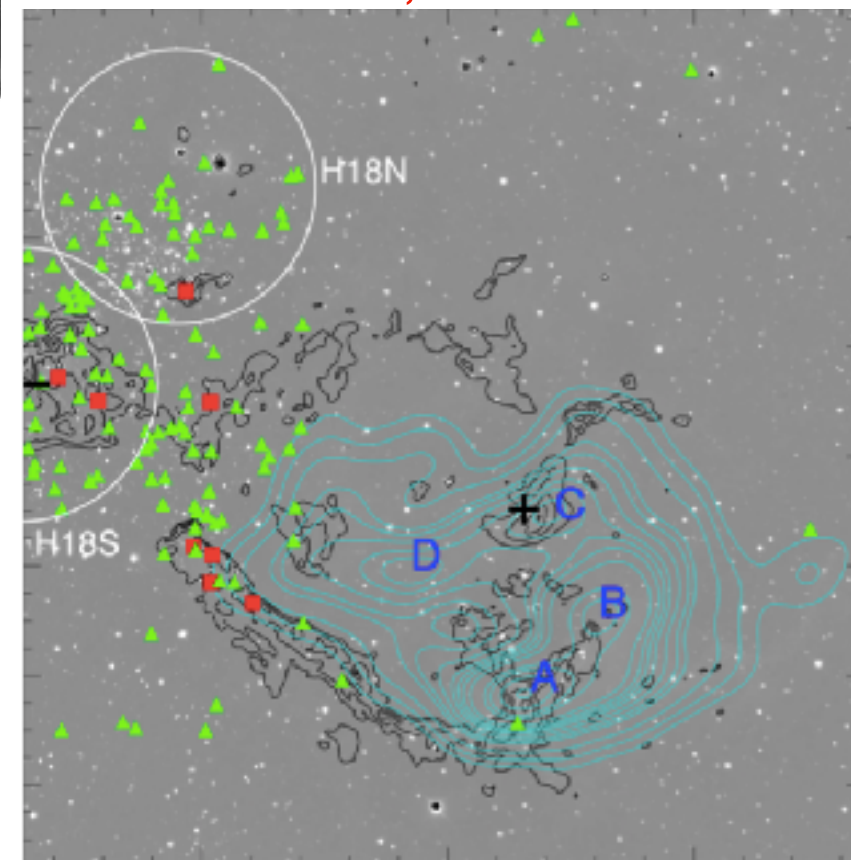
- Galactic Infrared Bubbles;
- HII regions

Cloudy:

- To simulate physical conditions in/around HII regions.
- Compare simulated results with observations.

Black: PAH; Cyan: Radio

Red: Class I; Green: Class II



Yadav et al. 2016

