

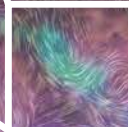
The Orientation of the Magnetic Field Throughout the CMZ



Dylan M Paré
Villanova University
AAS 244 Press Conference
June 11th, 2024

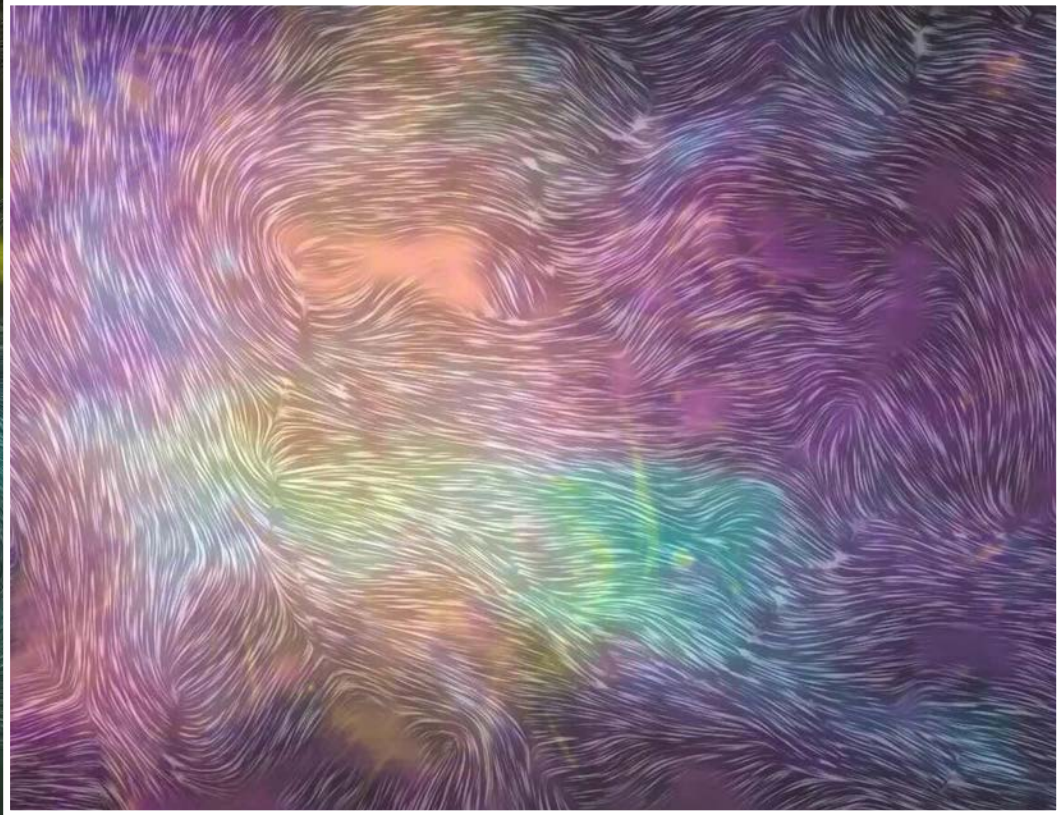


The Brick



Roy's talk
after this!

Cool dust, 250 μm Herschel (Molinari+2011)
Warm dust, 70 μm Herschel (Molinari+2011)
Hot plasma, 1.28 GHz MeerKAT (Heywood+2022)



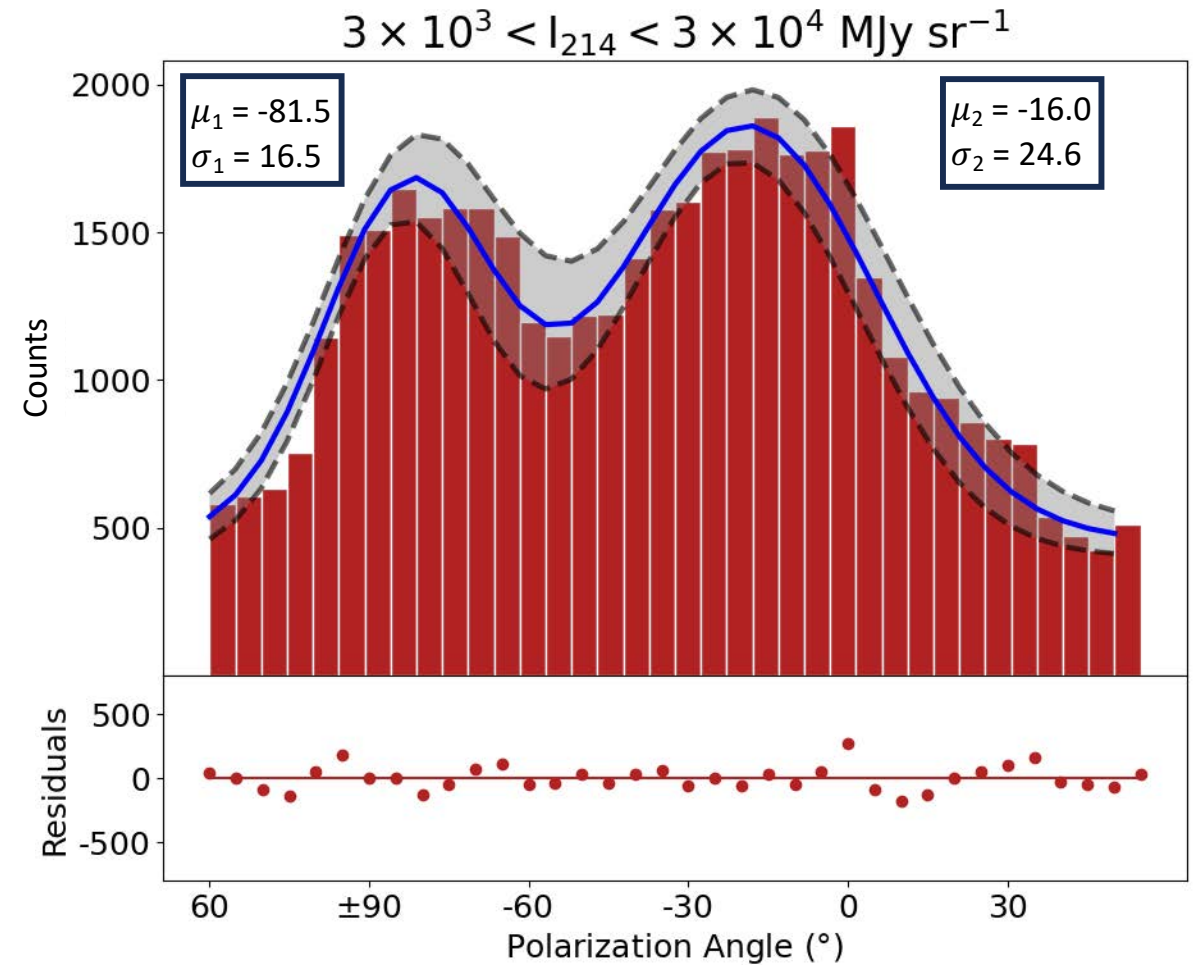
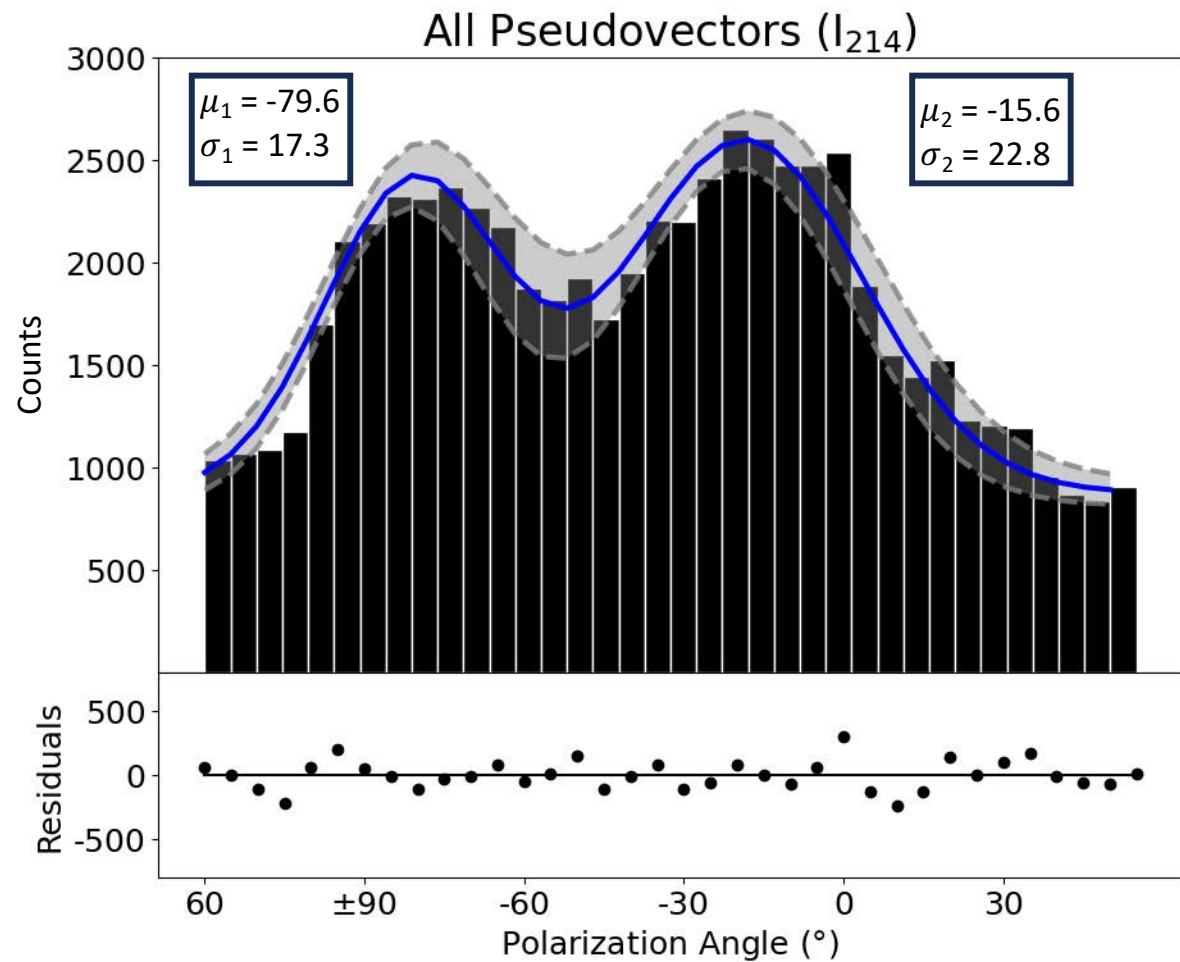
50 kms and other clouds

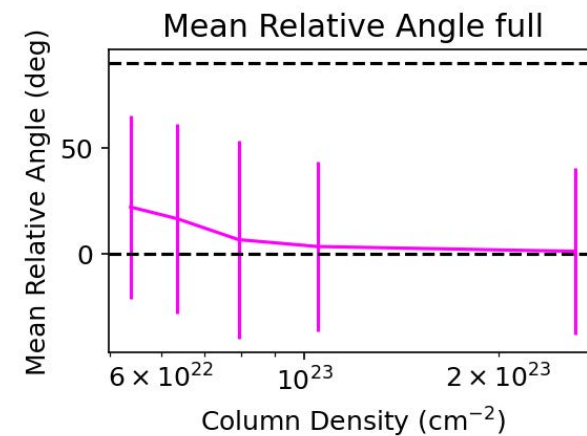
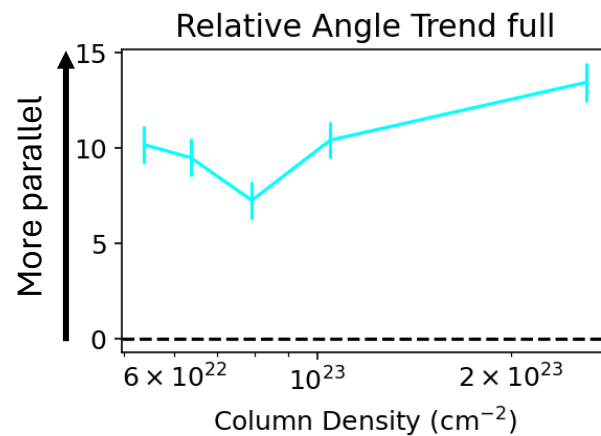
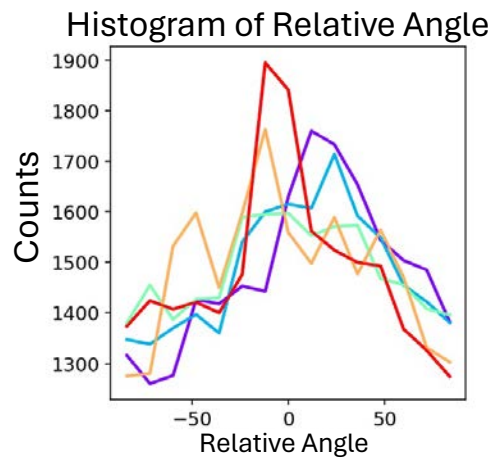
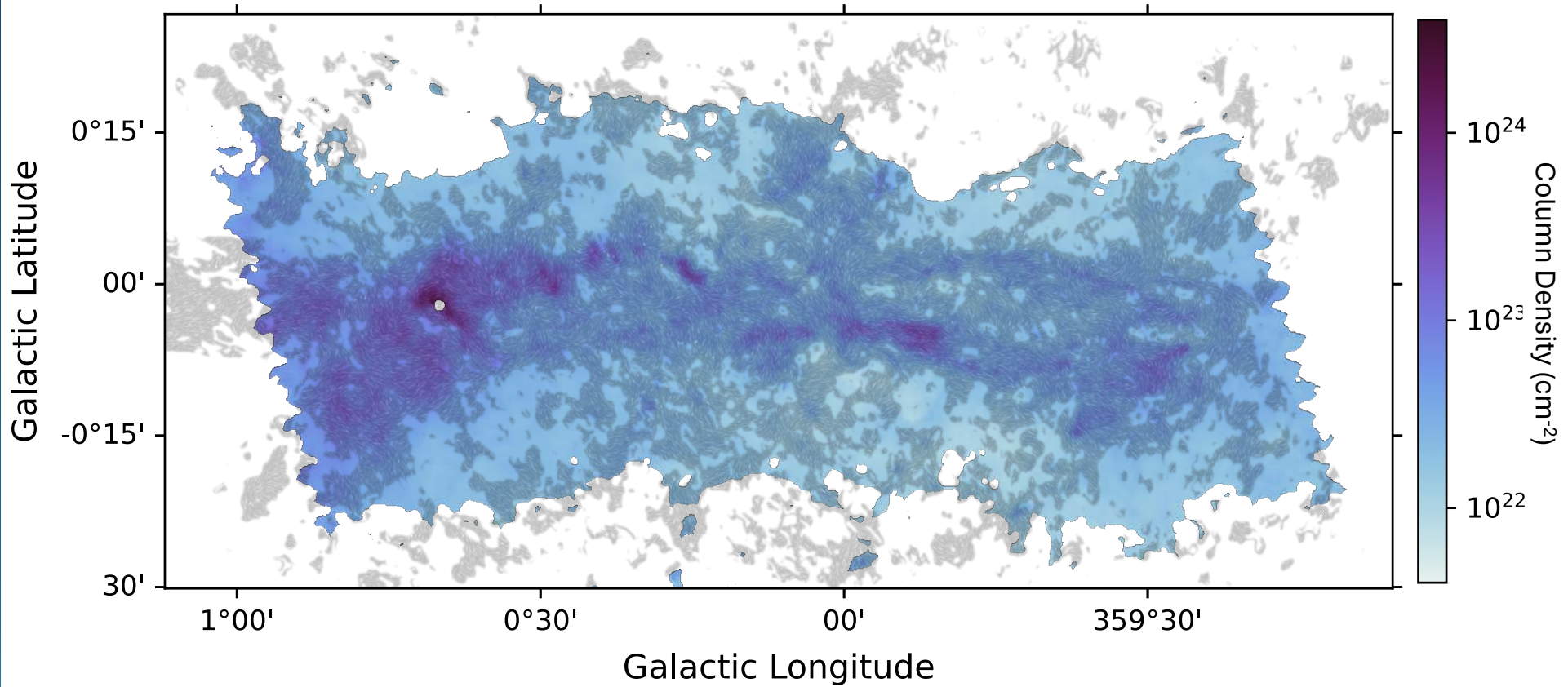


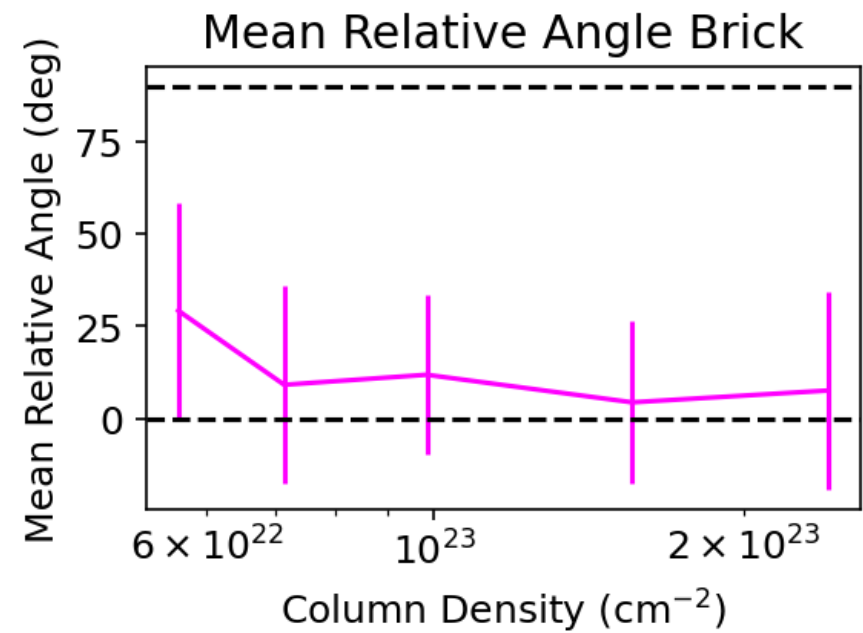
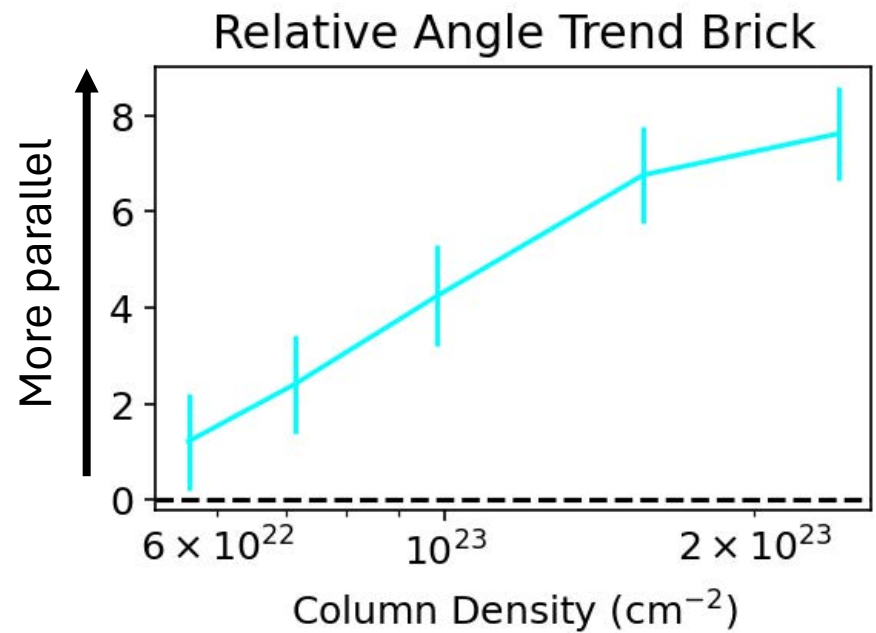
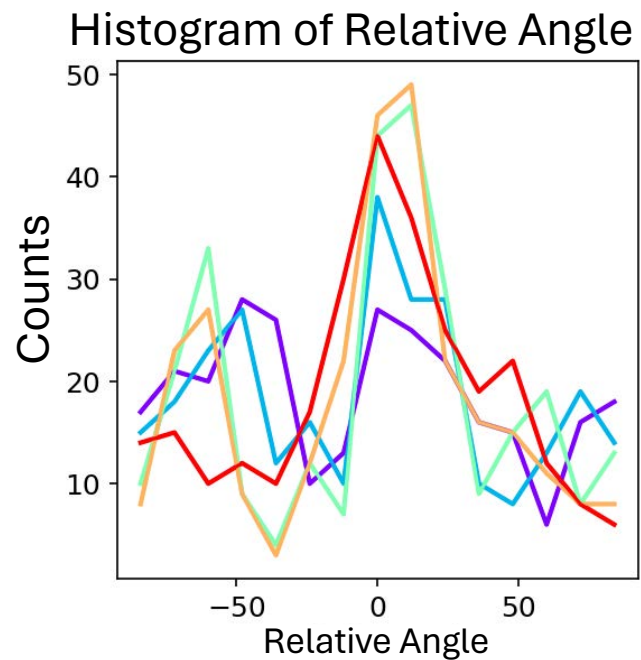
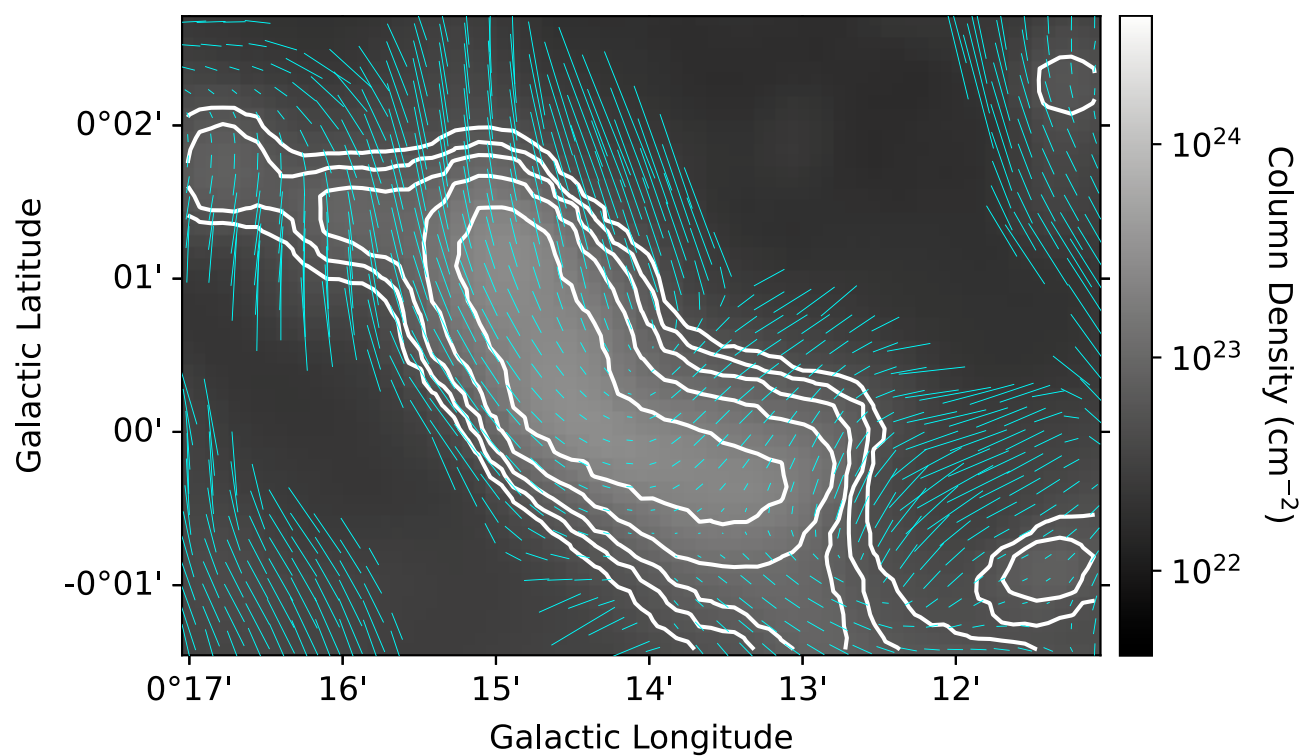
Roy's talk after this!

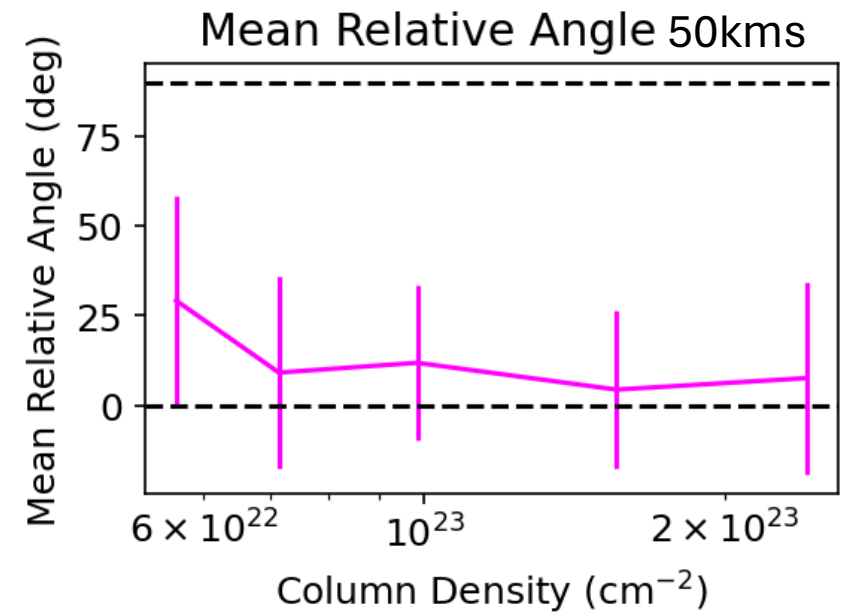
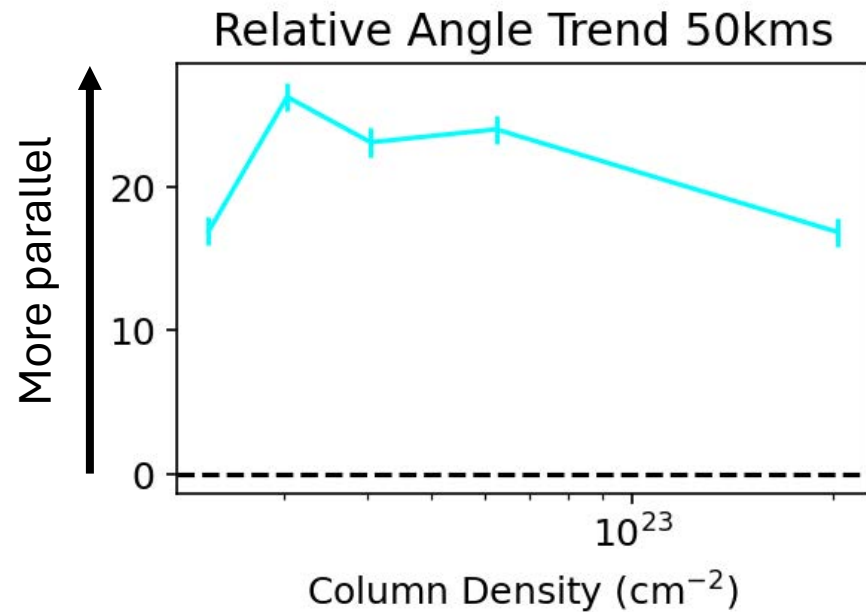
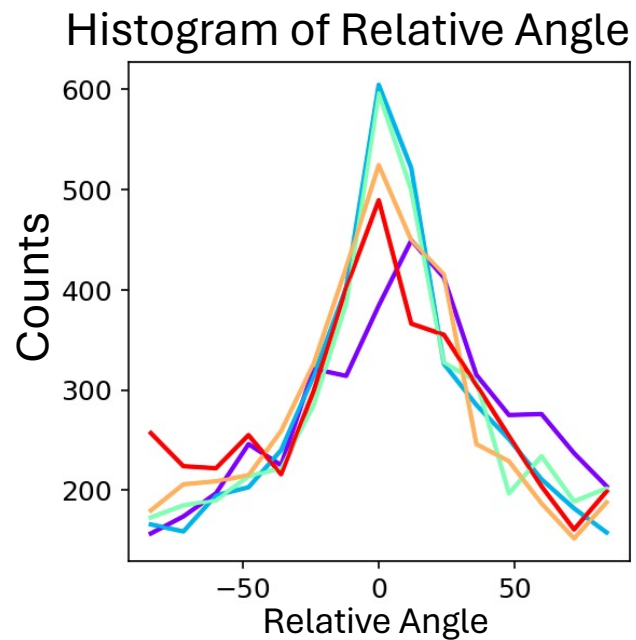
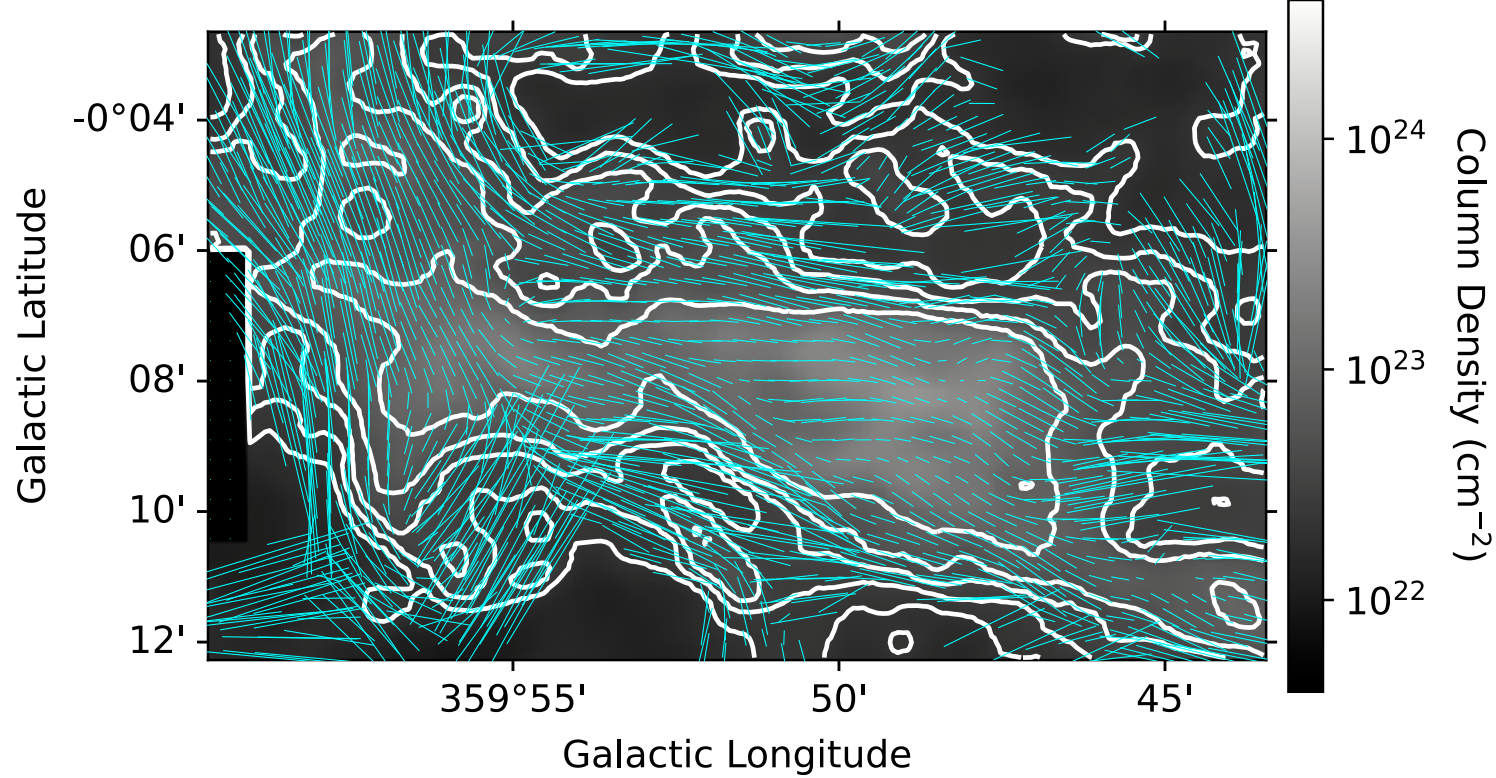
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Evidence of Preferred Magnetic Field Orientations









Summary

- Relative orientation is increasingly aligned with molecular cloud structure at higher densities
- Contrasts with what is observed in the Galactic disk, where at higher densities magnetic field is less well aligned
- This result supports the possibility that there is significant shear in CMZ molecular clouds

FIREPLACE data set publicly available:

