

CARMA View of Filaments in Nearby Molecular Clouds:

Gradients, Substructure, and Flattened Environments

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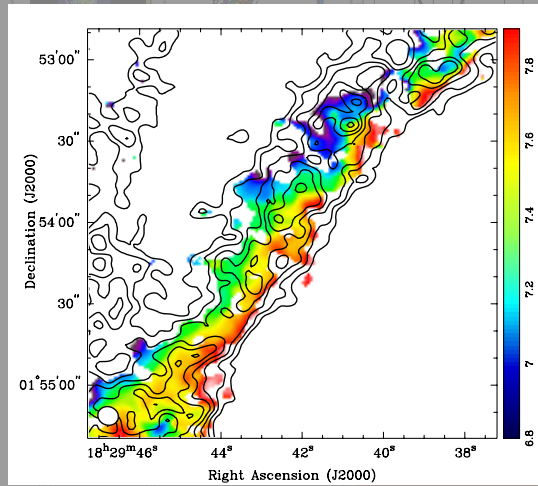


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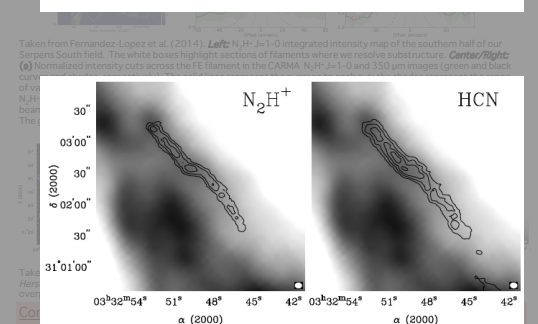
Result 1:

- Radial gradients discovered in filaments.
- Filaments are self-gravitating structures accreting from a flattened larger-scale layer.

Topic 1: Filament Formation



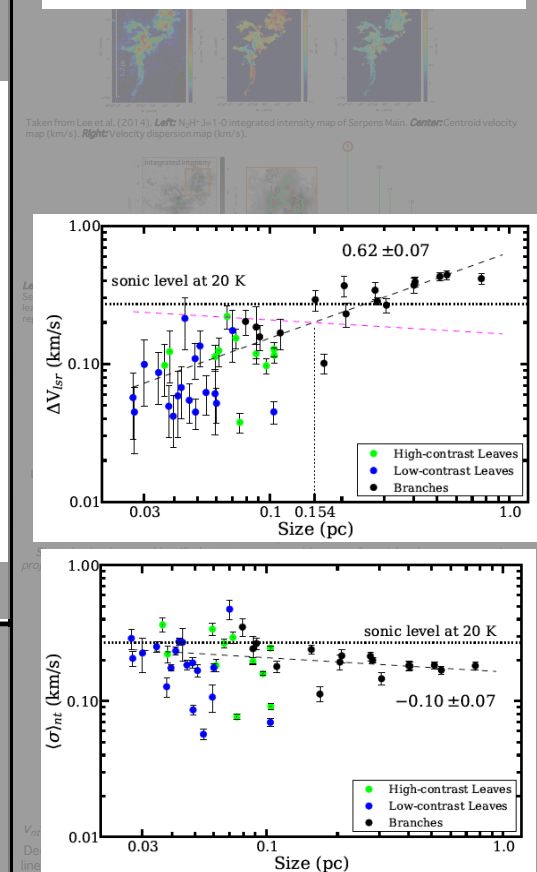
Topic 2: Filament Substructure



Result 2:

- Substructure appears within filaments with our higher angular and velocity resolution.

Topic 3: Filament Environment



Result 3:

- CLASSy regions have line-of-sight depths $\sim 0.1-0.2$ pc.
- They are flattened at the largest (parsec) scales.

