

Questions for Discussion

Filaments and star formation
Theory vs. observations

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ABOUT FILAMENTS

- Can we agree on a terminology/taxonomy
 - (Gutermuth talk)
- How long does the distribution of objects retain the filamentary shape:cores, protostars, YSOs, ...?
 - (Heiderman, di Francesco, Pudritz)
- What are the dynamical processes involved in filament evolution?
 - (Friesen, Heitsch)
 - Is Polaris a young Aquila?
 - Are filaments turbulent inside, or dominated by “laminar” flows?
- Are filaments a scale-free process, or do they have characteristic scales?
 - If scale-free, is there a hierarchy?
 - If not, what sets the scale?
 - If scale-free, can there be a universal width?
- How do filaments relate to clumps?
 - What forms first, filaments or clumps? Or simultaneous?
- What is the role of filaments in star formation? (massive vs low mass)
 - (Tan, ...)

ABOUT COMPARISONS

- Are observers and theorists interested in the same filament properties?
- How to perform meaningful comparisons between theory, simulations, and observations?
- What are meaningful comparison levels (say, structural, kinematic, chemical [time dependent])?
- How to interpret observed velocity gradients corresponding to rotation and to infall (or inflow)?