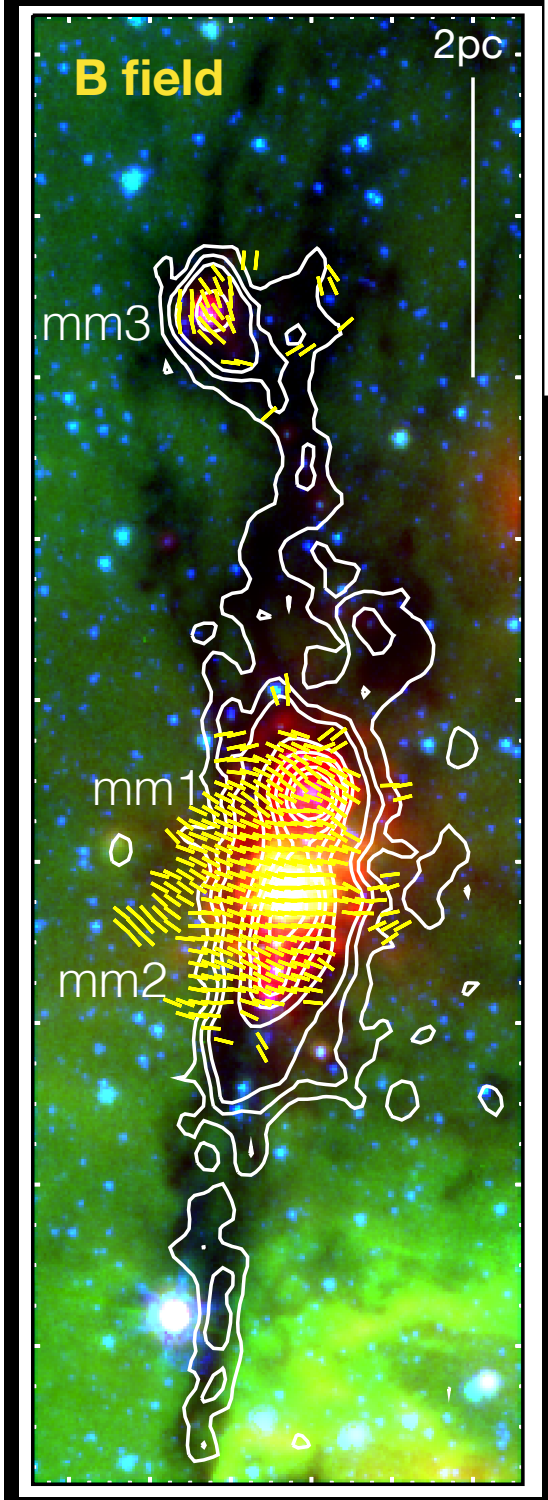
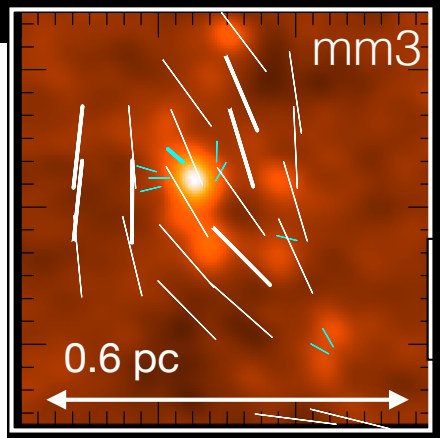
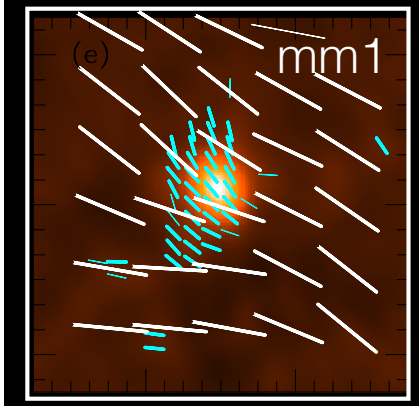
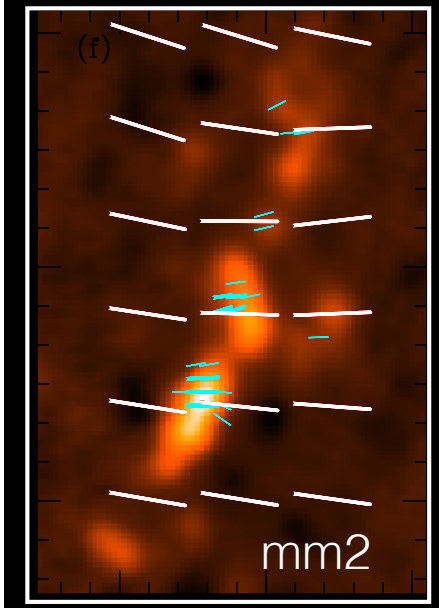




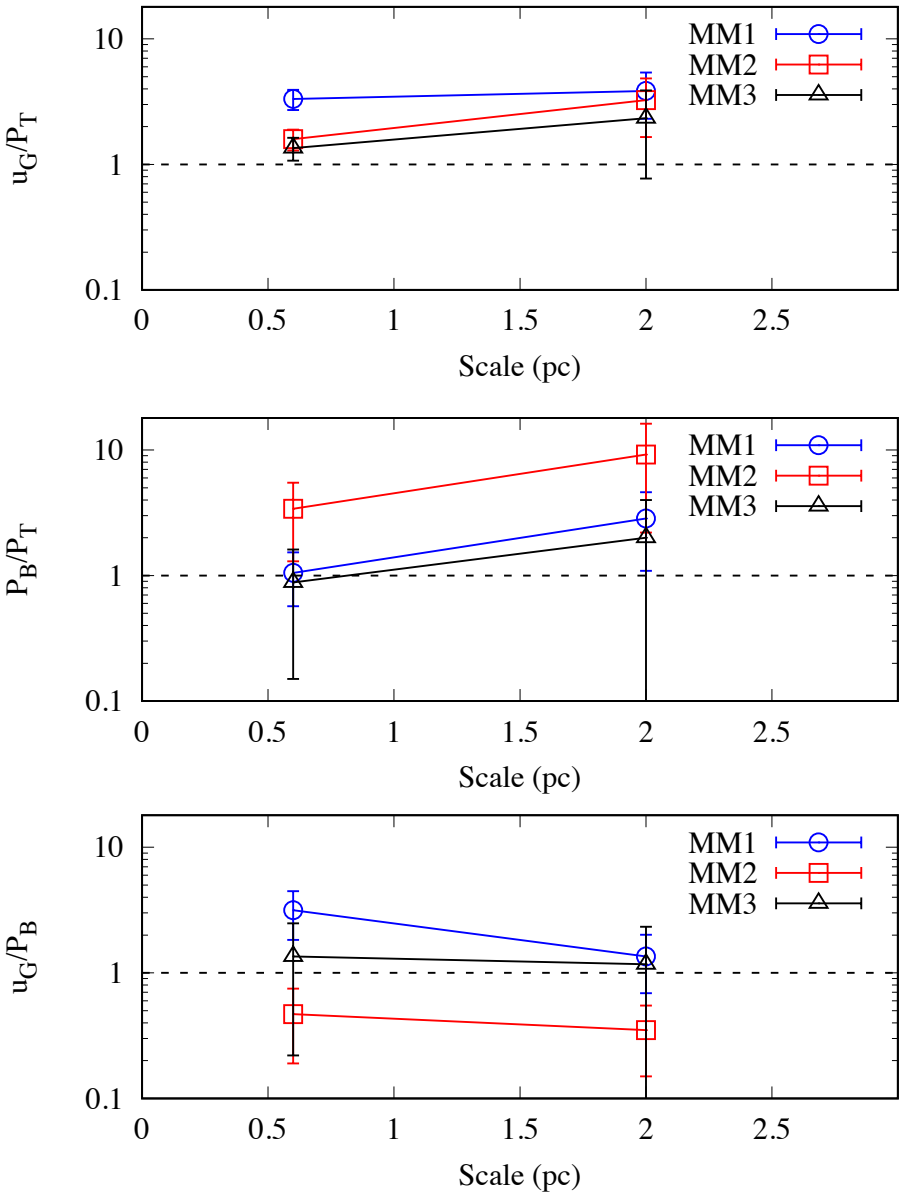




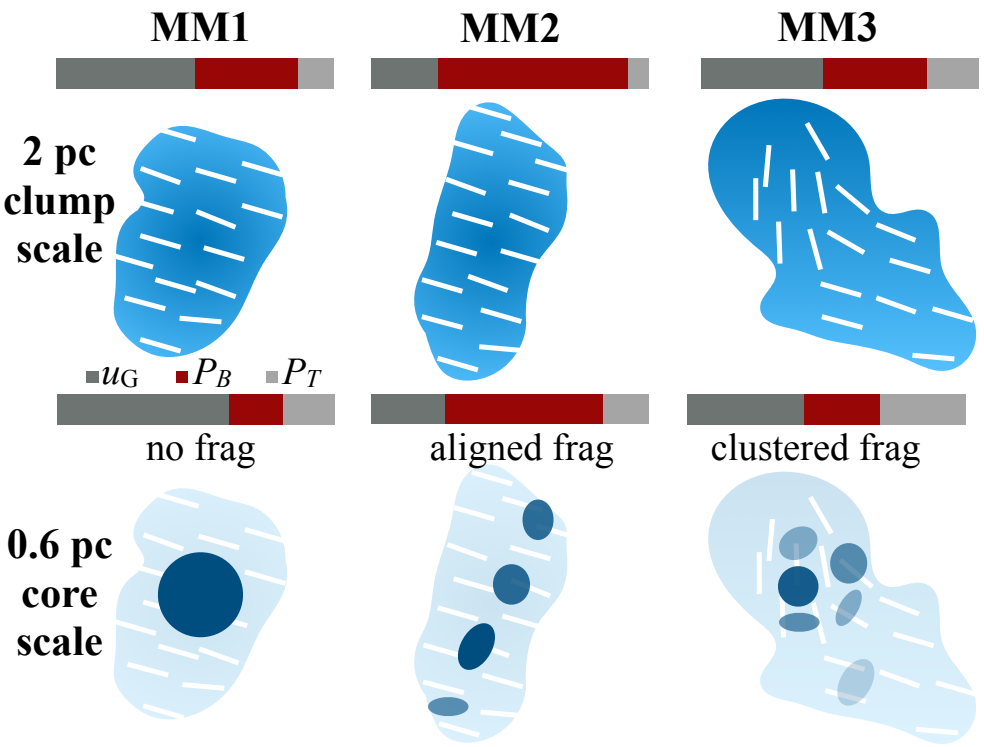
Gravity, Magnetic Field and Turbulence in the star forming filament G34.43

Tang, Koch et al. 2019, ApJ, 878, 10

- **Question:** what is the key player in dominating the fragmentation in the next smaller scale?
- **Method:** probe the magnetic field (B) using SHARP/CSO with 10" angular resolution (0.2 pc). probe the kinematic information from N_2H^+ from IRAM30m. The gravity/mass is derived from the Herschel continuum images.
- **Result:** Robustness and uncertainties were discussed on quantifying the B field, Gravity (G) and Turbulence (T) at two scales: the clump area at 2 pc scale and the core area at 0.6 pc scale
- **Conclusion:** Compare B, G and T at 2 pc and at 0.6 pc and link to three types of fragmentation seen with 0.05 pc resolution: no fragmentation at MM1, aligned fragmentation at MM2, clustered fragmentation at MM3



Tang et al. 2019



- While B, G, T all grow systematically from large to small scale, the ratios among the three constituents develop clearly differently over scale
- varying relative importance between B-field, gravity, and turbulence over scale drives and explains the different fragmentation types seen at sub-pc scale