EXTRAGALACTIC FILAMENTARY STRUCTURE IN 30DORADUS-10

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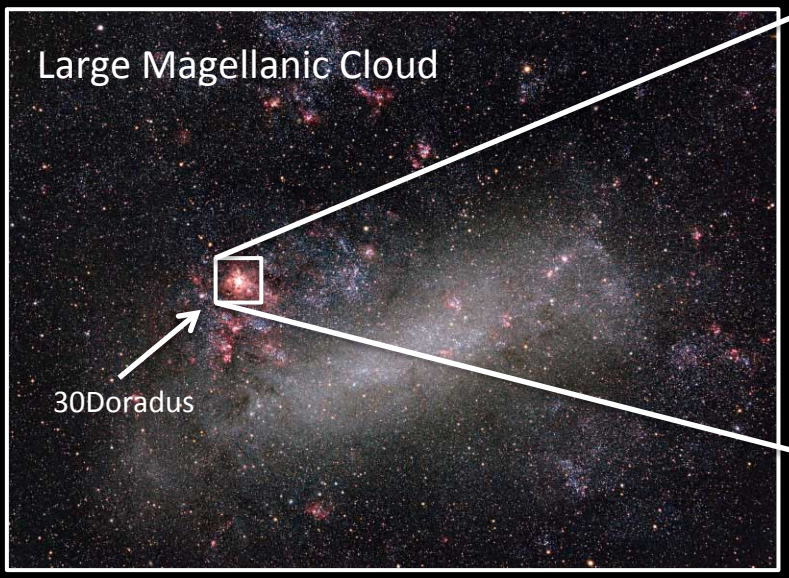

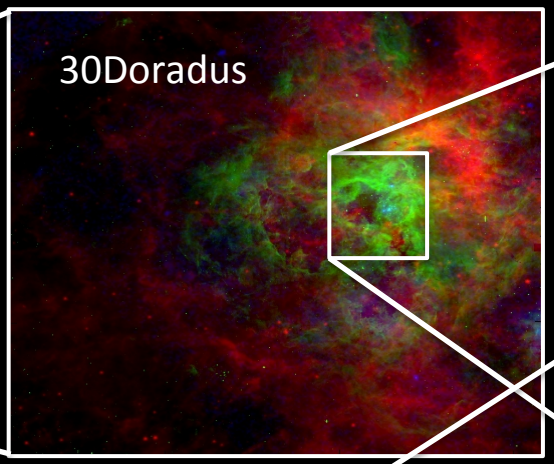

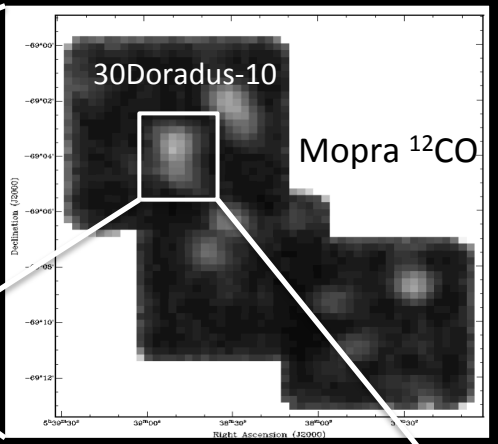

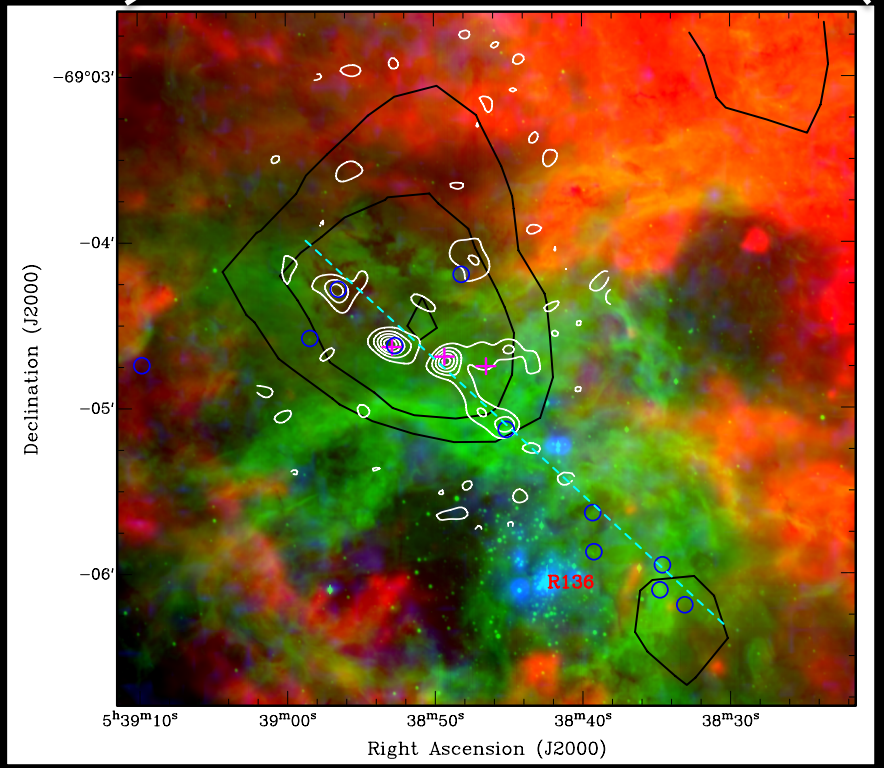

We detect a linear structure that is a potential gravitationally unstable filament and likely collapsing to form stars. The morphology of the filament is in agreement with predictions by the varicose fluid instability where the clumps have roughly uniform spacings. Morphology and dynamics suggest that the filament is lying approximately in the plane of the sky. Toward 30Dor-10, H_2O masers and YSOs tends to correlate with the positions of HCO^+ clumps along the filament. Additional YSOs are observed to extend back toward R136 along the same line. The presence of YSOs and H_2O masers demonstrates that HCO^+ cores are currently forming stars. This suggests that the 30Dor-10 clumps may be slightly younger than those near R136 and we are seeing the dispersal of molecular gas in that part of the filament.