Probing the universality of interstellar filamentary structure: From Herschel to ArTéMiS and beyond

Philippe André[1]

[1] *Laboratoire AIM, CEA Saclay, Orme des Merisiers – Bât. 709, 91191 Gif-sur-Yvette Cedex*

Herschel imaging surveys of Galactic molecular clouds have emphasized the quasi-universality of the filamentary structure of the cold ISM and the role of filaments in the star formation process (e.g. André et al. 2014 for a review). I will briefly summarize the Herschel results and will discuss on-going and future follow-up work on this topic. In particular, I will present initial results obtained with the new ArTéMiS submm camera on the APEX telescope at 350 microns (cf. André et al. 2008 and Hill et al. 2012 for very first results with the prototype camera P-ArTéMiS).

References

[1] André Ph., Di Francesco, J., Ward-Thompson, D., Inutsuka, S., Pudritz, R.E., Pineda, J., Review Chapter for Protostars and Planets VI, Eds. H. Beuther et al. , in press (2014) (astro-ph/1312.6232)
[2] André, Ph., Minier, V., Gallais, P. et al., A&A, 490, L27 (2008)
[3] Hill, T., André, Ph., Arzoumanian, D. et al., A&A, 548, L6 (2012)