

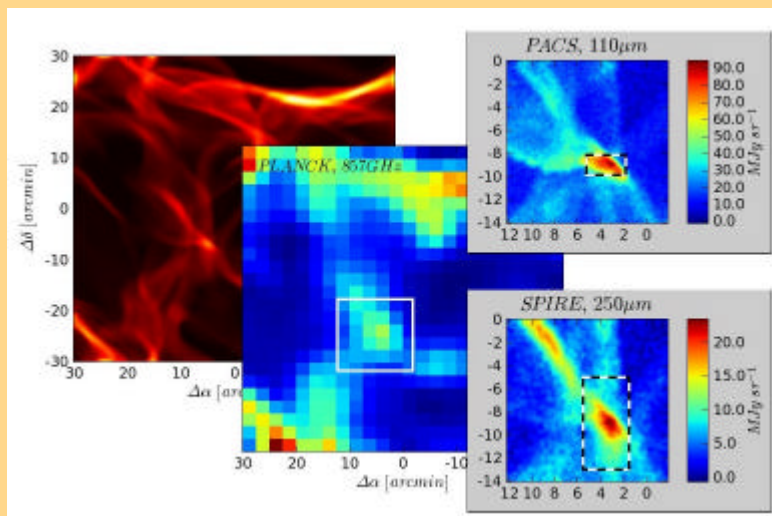
Cold cores in the Galaxy: Proposal for a PLANCK-HERSCHEL OT Key Programme

Coordinated by M.Juvela (University of Helsinki) & I.Ristorcelli (CESR)

Aim: Combine the capabilities of Planck and Herschel to carry out a an unbiased and systematic study of cold cores in the Galaxy : cores characteristics: temperature, mass distribution, dust properties ...

Method:

- Build an unbiased catalog of Galactic cold cores from Planck data during its proprietary period:
 - ~ 10 000 cold cores expected to be detected in this survey
- A follow-up with both PACS & SPIRE on a representative sample selected as a function of
 - Temperature, dust emissivity, density, mass, morphology
 - Magnetic field properties (polarization degree)
 - Galactic distance and/or environment (radiation field, large-scale morphology, core shape, structure)
 - Isolated / clustered cores



Complementary to the PACS & SPIRE GT
Star Formation K-programmes and Hi-GAL OT KP

