**Cold cores in the Galaxy:**

**Proposal for a PLANCK-HERSCHEL OT Key Programme**

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Aim: Combine the capabilities of Planck and Herschel to carry out 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