Cold Cores - a study of the earliest phases of star formation

Cold Cores is an international research project that uses observations made with the Planck and Herschel satellites of the European Space Agency (ESA). Planck mapped the entire sky at nine radio and far-infrared wavelengths. We used this survey to locate thousands of previously unknown dense cloud cores within the interstellar clouds of our Galaxy. These cores are the locations in which the next generations of stars will form. In a Herschel Open Time Key Programme we studied in more detail a selection of the cores to learn more about the star formation process. The higher resolution provided by the Herschel instruments enabled us to have a closer look at the internal structure of the sources and to locate young stars.

Cold cores:
- What are cold cores?
- Why is the Planck survey essential for the study of cold cores?
- What will we learn with Herschel?

Our project:
- Participants
- Abstract of the Herschel proposal
- Publications and presentations
- Research highlights
- Pictures and animations
- Data

Meetings:
- Cold Cores meeting, Budapest 28.-30.4.2014
- Cold Cores meeting, Toulouse 8.-10.6.2015

External links:
- Planck satellite at ESA site
- Herschel satellite at ESA site
- Selected ESA press releases
  - Planck reveals an almost perfect Universe (21.3.2013)
  - Planck’s new view of the cosmic theatre (11.1.2011)
  - Planck unveils the Universe – now and then (5.7.2010)
  - New Planck images trace cold dust and reveal large-scale structure in the Milky Way (17.3.2010)
  - New Herschel images reveal previously unseen detail in the Milky Way (2.8.2009)