



PHOENIGS: from the SINGS 'ashes'

Project for Herschel On an Extragalactic Normal Infrared Galaxies Survey

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Broad Science Objectives:

- Trace and characterize the flow of energy through the ISM in galaxies;
- Link heaters-emitters: use Herschel spatial resolution to enable definitive modeling of radiative transfer of dust and gas cooling in galaxies;
- Probe the nature/origin of extended cold dust envelopes; link warm-cold dust emission;
- Improve dust and spectral diagnostics of star formation and ISM properties.

Approach:

- An objectively selected sample of nearby galaxies (SINGS-inspired), optimized to cover a broad and representative range of properties, and broad range of local physical environments;
- Exploit angular resolution for resolving infrared components and dust heating populations.
- Leverage existing and new ancillary data: from UV to radio
- Data and high-level data products would be delivered quickly to the broad community.