

ABSTRACT

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Herschel and ALMAs view of massive star formation

I will present multi-wavelength PACS (70 & 160 micron) and SPIRE (250, 350, 500 micron) Herschel images of a number of early targets from the Herschel HOBYS guaranteed time key program. These high spatial resolution Herschel data reveal a wealth of sources spanning a large mass range covering high, intermediate and low mass star formation. Herschel HOBYS images are rife with sources that beg further study. In some of the target fields candidate class-0-like high-mass protostars have been detected. These candidate protostars are excellent targets for followup at high resolution submillimetre wavelengths, such as those provided by ALMA. ALMA observations will serve to resolve our sources into individual star forming cores, allowing, for the first time, insight into the environments in which they form and the core-core interactions within them. In addition to the resolution capability of ALMA, these millimetre continuum data serve to anchor and constrain the (sub)millimetre regime in terms of SED modelling, providing a greater constraint on the dust component and temperature derivations. From tightly constrained SED models, we can obtain a far better constraint on key parameters such as the bolometric luminosity, temperature and envelope mass, and hence estimate the evolutionary status of the clumps/cores.