Seb Oliver (University of Sussex, faculty/staff)

HerMES Collaboration ()
HELP Collaboration ()

Presentation Requested: oral
Category: Cosmic Star Formation History
Question: How does the star formation rate density evolve over all redshifts, especially at z > 2? Is there agreement between the measurements from ALMA, JVLA, Herschel, HST, and other instruments? Can the SFR density be dissected showing what is contributing to it at different redshifts or how might we go beyond measuring this relationship. What are the state of the art simulations and how do the observations compare to them?

Surveys of the Cosmic Star Formation History with Herschel

I will present some of the results on Cosmic Star Formation History from the Herschel Multi-tiered Extragalactic Survey, HerMES. I will look at how Herschel surveys have constrained the FIR luminosity density and how this compares to what has been and could be achieved with longer or shorter wavelengths. I will look at how Herschel surveys can be exploited to find extreme cases of star formation at the earliest times. I will also look ahead to the Herschel Extragalactic Legacy Project (HELP) which aims to combine Herschel data with new and pre-existing ancillary data in novel ways to extract the most information from Herschel.