

Formation and evolution of Galaxies with SWIRE

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We present results on the formation and evolution of Galaxies with the Spitzer Wide-area Infrared Extragalactic Survey (SWIRE, Lonsdale et al. 2003), the largest of the Spitzer Legacy surveys, which has observed 50 square degrees in six areas of the sky with the Spitzer IRAC and MIPS cameras in seven infrared bands as well as in several optical bands from the ground. The SWIRE fields are the best regions of the sky for Far-infrared and submm observations due to the low background emission. SWIRE has detected over 2 million infrared extragalactic objects. In this talk we will present the large SWIRE public data products and results in the following topics: 1) source counts, redshift distributions, spectral energy distributions, and the nature of SWIRE sources detected at the longest wavelengths (70 and 160 micron) with MIPS, 2) the infrared emission of active galactic nuclei, and 3) the mid-infrared IRS spectra of a sample of bright SWIRE/ELAIS sources.