

The evolving Universe: FIR deep field observations

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I will examine the general case for observing the early formation/evolution phases of galaxies in the far-IR and sub-mm, and will review the current status of long-wavelength cosmological surveys after Spitzer and Herschel. I will argue that still the fundamental processes responsible for shaping the properties of galaxy populations (including their masses, and age distributions of stellar populations) might remain largely not understood without a future high spatial/spectral resolution facility in the far-infrared.