

The evolution of high redshift massive galaxies in HUGS/CANDELS

A. Fontana¹

¹ *INAF - Osservatorio di Roma*

Abstract

I will present the latest results on the evolution of high redshift massive galaxies from CANDELS and HUGS. The latter, in particular, is the deepest survey ever conducted in the K band over areas of cosmological interest. Resulting from an ESO Large Program that used more than 200 hours of exposure time with the IR images Hawk-I at the VLT, it delivers images of superb quality (seeing $\sim 0.4''$) over two of the CANDELS fields (UDS and GOODS-S/HUDF), reaching magnitude limits as faint as $K=26.5-27$. Merging this dataset with the rest of the CANDELS dataset we have been able to investigate the evolution of massive galaxies at high redshift. In my talk I will focus in particular on two main results: - the evolution of the Galaxy Mass Function at $z \gtrsim 4$, and its consistency with the evolution of the star-formation rate as a function of redshift; - the number density and redshift evolution of passively evolving galaxies at $z \gtrsim 2$,