B30c   **Culling proto-ellipticals in the EIS Deep3a by SUBARU/VLT**

Xu Kong   (   )   (/   )
(   )   (   ) Alvio Renzini   Emanuele Daddi (ESO)   Tom Broadhurst
(   ) Andrea Cimatti (   )

One of the main open questions of galaxy evolution is how and when the present-day massive ellipticals were formed (hierarchical models or passive evolution models). From the observational point of view, the above problem can be investigated by searching for 'old' passively evolving spheroidal galaxies at high redshifts. However, several limitations in the previous work must be overcome before the issue could be fully settled: 1) the small sky areas analyzed, such as HDF, GOODs; 2) the large uncertainties of photometric redshifts; and 3) the different criteria for high redshift galaxy selection, such as LBG, ERO ($R - K > 5$ or $I - K > 4$) and DRG ($J_s - K_s > 2.3$).

Motivated by these facts we have undertaken an extensive multi-wavelength image and spectroscopic observations for 2×900 arcsec^2 sky regions, using NTT (J & K-band image), Subaru/Suprime-Cam (B,R,I & z'-band image), and Subaru/VLT (spectrum). Here, we present results on the properties of a sample of 1000 $BzKs$. $BzKs$ are a new population of near-IR bright, $z \sim 2$ galaxies, which were recently discovered by a two color selection. The BzK selection and classification technique, the photometric redshift estimation, the spectral energy distribution (SED), the space clustering, and the physcial properties of $BzKs$ will be discussed in this poster. These detailed characterization of this new galaxy population is crucial for formation processes and epoch of massive spheroids.