LUMINOUS COMPACT BLUE GALAXIES AT HIGH REDSHIFT.

COSMOS PROYECT.

D. CRISTOBAL[1], M. PRIETO[1], M.BALCELLS[1],R.GUZMAN[2].
[1]*Instituto de Astrofísica de Canarias.* [2]*Yale University.*

We present the first data of the COSMOS Survey. COSMOS is mapping 1 square degree of the sky at optical and NIR wavelengths, in four fields with little galactic extinction and devoid of galaxy clusters. Key scientific goals include the characterization of samples of galaxies with high rate of star formation at redshifts from 0 to 3.

The first NIR data presented here was obtained with INGRID on the WHT in April 2000. During the observation the amospheric condicions were totally photometric and the seeing in the images is about 0.6 FWHM.

We did 8 pointings in Groth strip were there are several images of HST, and 9 in COPPI field where we have optical and X ray images from other groups. The exposure time is about 2 hours in each field obtaining a limiting magnitude of 21.5 mag in K_s and a seeing of 0.65" FWHM in the combined image. Image reduccion was done using the DIMSUM package in IRAF.

In figure 1 we present K_s and HST images and galaxy counts that we had obtained from our images using SEXtractor (E.Bertin & S.Arnouts,1996).

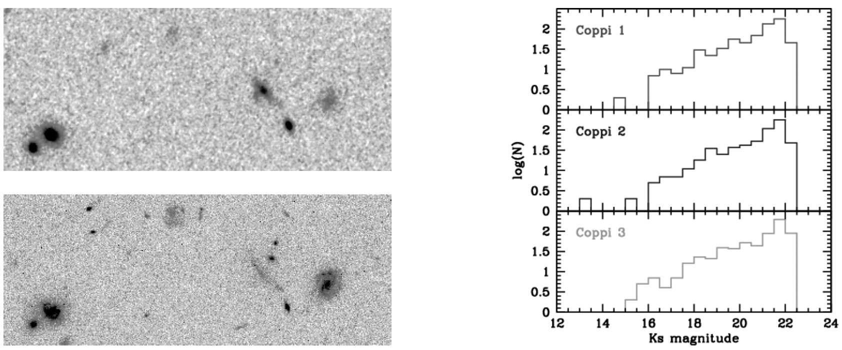

Figure 1. *a*) Comparison bewteen K_s (above) and HST/WFPC2 F606W (below) images in the Groth strip. *b*) Number counts in K_s band for Coppi field.