STUDIES OF STAR-FORMING GALAXIES AT HIGH-Z. II: THE COSMOS K BAND SURVEY.

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We present the first results of the COSMOS Survey. COSMOS is mapping 1 degree^2 of the sky at optical and NIR wavelengths, in four fields. Key scientific goals include the characterization of samples of galaxies with high rate of star formation at redshifts from 0 to 3, for future observations with GTC. The NIR data presented here was obtained with the newly commissioned INGRID on the WHT. We covered 155 arcmin^2. Accurate sky subtraction was allowed by the use of the DIMSUM package in IRAF. The Survey reaches a limiting magnitude of K_s=21.5 mag/arcsec^2 with S/N=3 (Fig.1). Seeing is 0.65" in the combined images. Existing deep HST, CHANDRA and other data in these fields make COSMOS a unique tool for the study of distant galaxian populations.

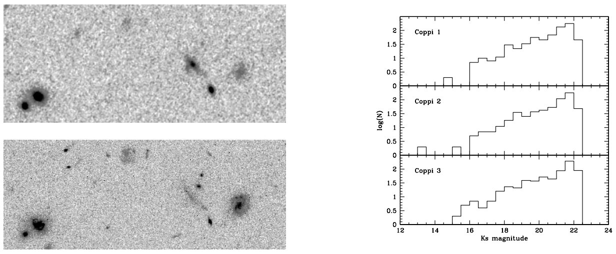

Figure 1. *Left*) An 11.4"×5" field of the Groth strip, imaged with INGRID (K_s, 0.65" FWHM, above) and HST/WFPC2 (F606W, below). The combined data sets provide morphological and color information. *Right*) Number counts in Ks from the COSMOS survey for three 21.2 arcmin^2 fields.