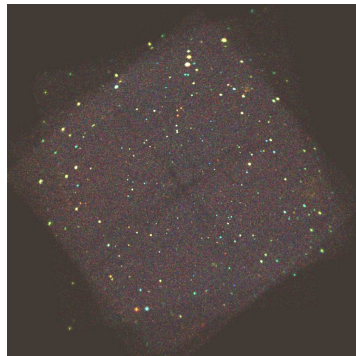


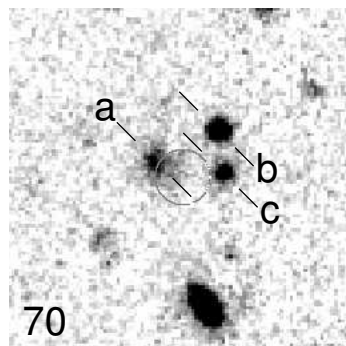
Optical spectroscopy results of the 1 Msec CDFS Chandra exposure are published. 137 of the 251 X-ray sources are identified, 122 of the 161 in the $R < 24$ sample. 124 identified field objects are also published. An X-ray based AGN classification scheme is presented based on X-ray fluxes and redshift (which can be photometric) that is an order of magnitude more efficient than pure optical classification for deep X-ray surveys.

X-ray background is (nearly) resolved



The 1Msec Chandra image (color composite of different energy bands). Depending on the absolute background flux level accepted, 70–100% is resolved into discrete sources – 50-70% in the hard band.

Optical followup in the CDFS field



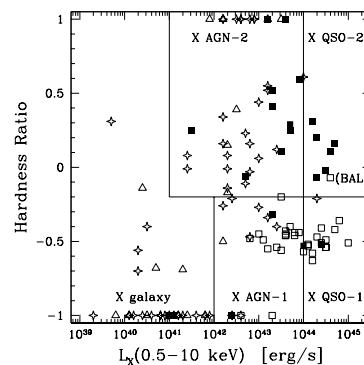
The VLT/FORS optical image (R-band) of the CDFS with X-ray error circle and possible counterparts drawn. In most cases there is only one counterpart.

Optical spectroscopy

11 nights of VLT/FORS observations (low resolution multi object spectroscopy): 288 counterparts for 251 X-ray sources were observed, 137 X-ray sources are reliably identified. **Data is (really) public.** Field objects with good spectra are also published (124 objects).

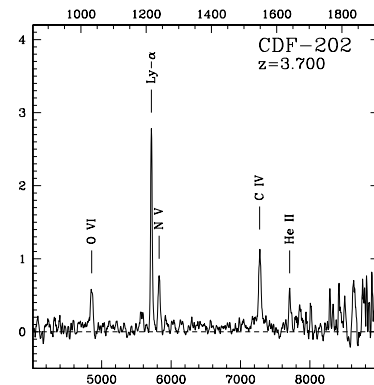
Classification

Classical Seyfert classification is problematic for these faint surveys. A new classification scheme based on X-ray data and redshift is proposed, motivated by the unified AGN model. It is objective, simple (f_s , f_h and z), effective, a natural extension of Seyferts and can use photometric redshifts.



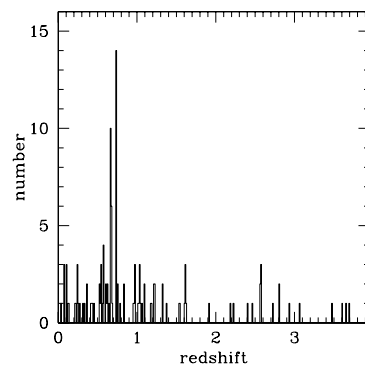
Our X-ray diagnostic applied to the CDFS X-ray objects. Only objects marked with open squares (BLAGNs) and solid squares (high excitation lines) can be identified optically as AGNs.

Type-II QSOs



8 high luminosity X-ray sources with significant absorption found. These type-2 QSOs are at high redshift and are optically faint.

Large scale structures



Two large scale structures were found in the sample at redshifts of 0.674 and 0.734. These are dominantly populated by type-2 AGNs.

Data release

<http://www.mpe.mpg.de/CDFS/>