Evolution of AGN Luminosity Functions

Optical – Mostly luminous quasars

~~6000 2dF + LBQS quasars~~

Fan et al. (01)

Boyle et al. (00)

COMBO–17 probes lower luminosity – hints that redshift of max. AGN density is luminosity dependent. 

Wolf et al. (03)

X–rays – Can sample much lower luminosity

Qualitatively different evoln. for high and moderate X–ray lum. AGN.

Strong positive evolution in num. dens. only for highly X–ray luminous AGN.

Rare, highly lum. AGN grow efficiently at high redshift.

BUT

Most AGN had to wait longer to grow.