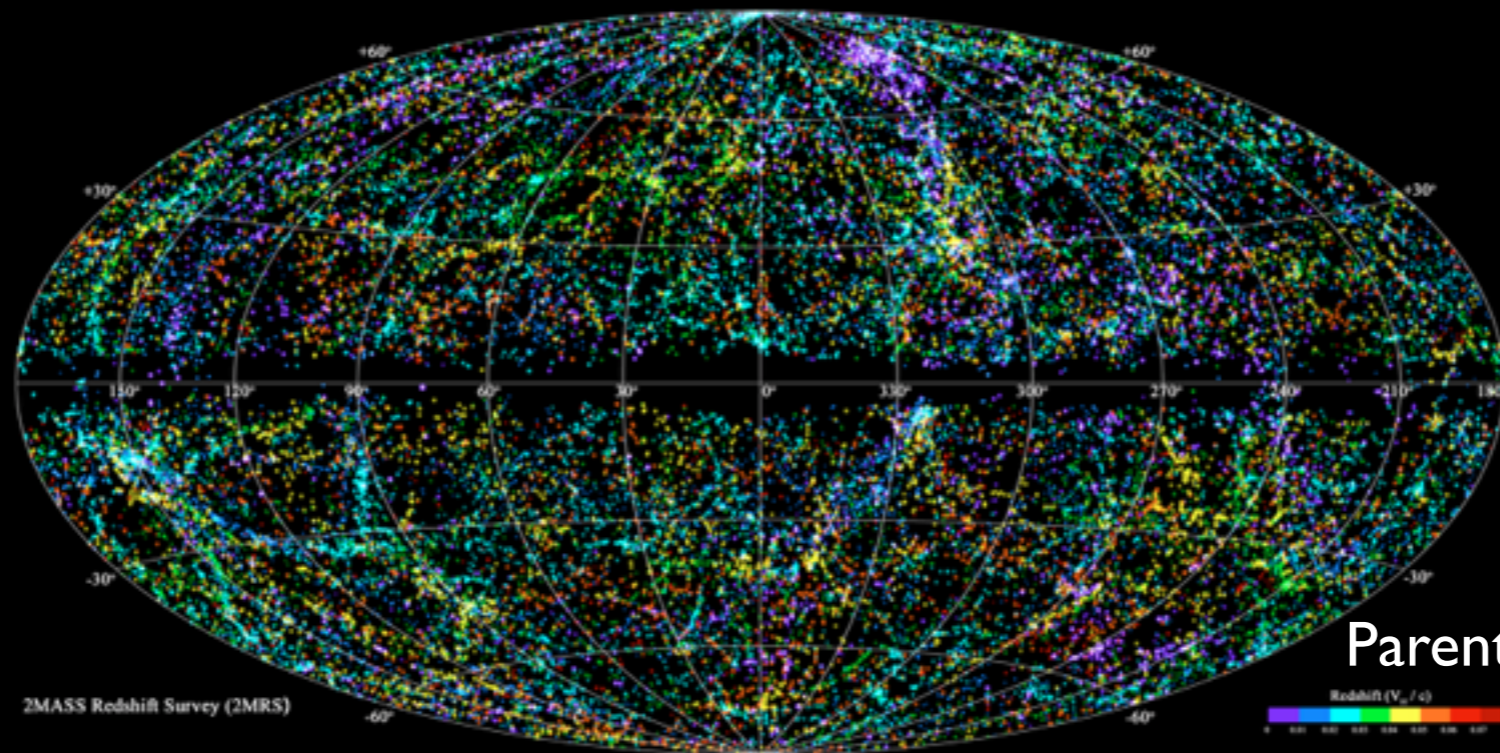


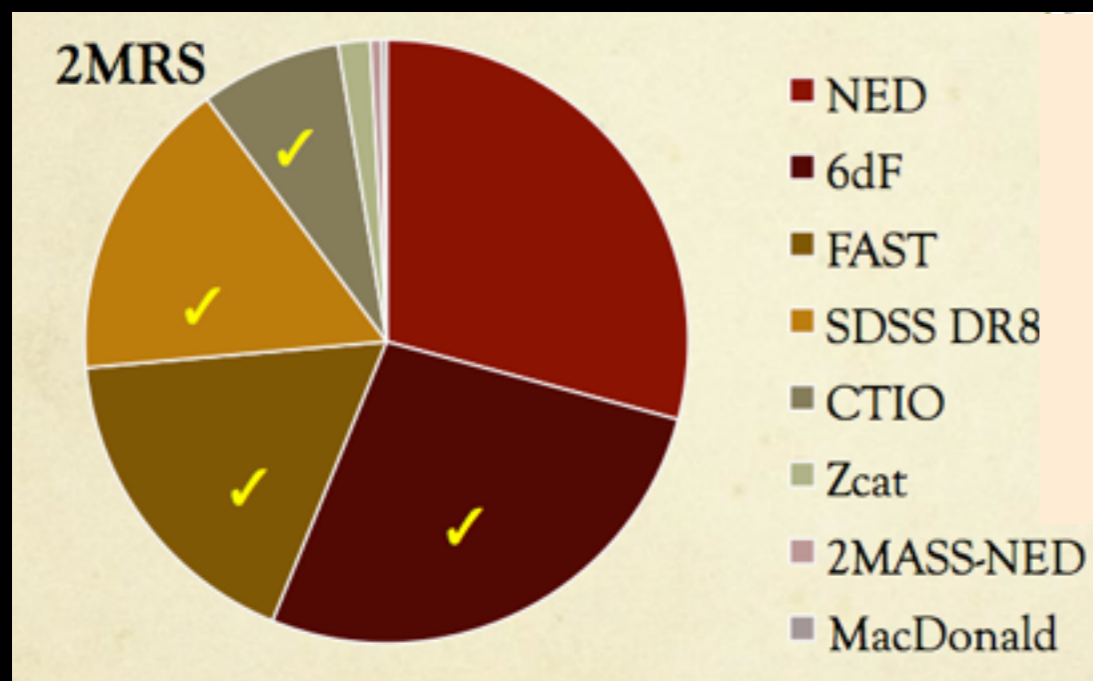
# A Uniformly Selected, All-Sky Optical AGN Catalog for UHECR Correlation

Ingyin Zaw<sup>1</sup>, Yanping Chen<sup>1</sup>, Glennys Farrar<sup>2</sup>

<sup>1</sup>New York University Abu Dhabi, <sup>2</sup>New York University

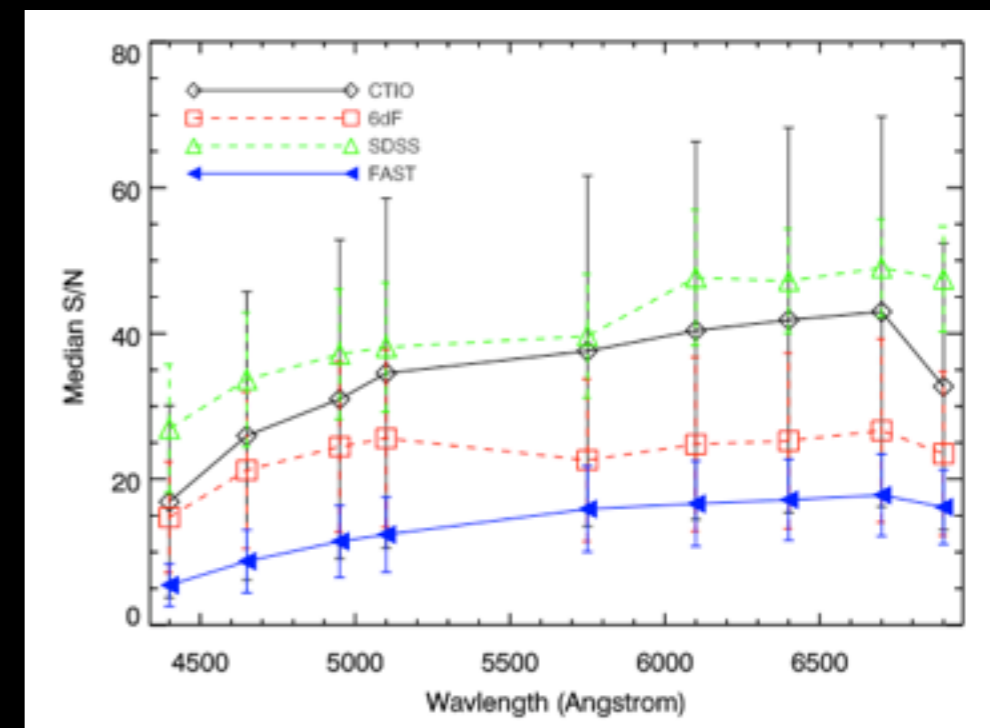


Parent Sample, 43533 galaxies



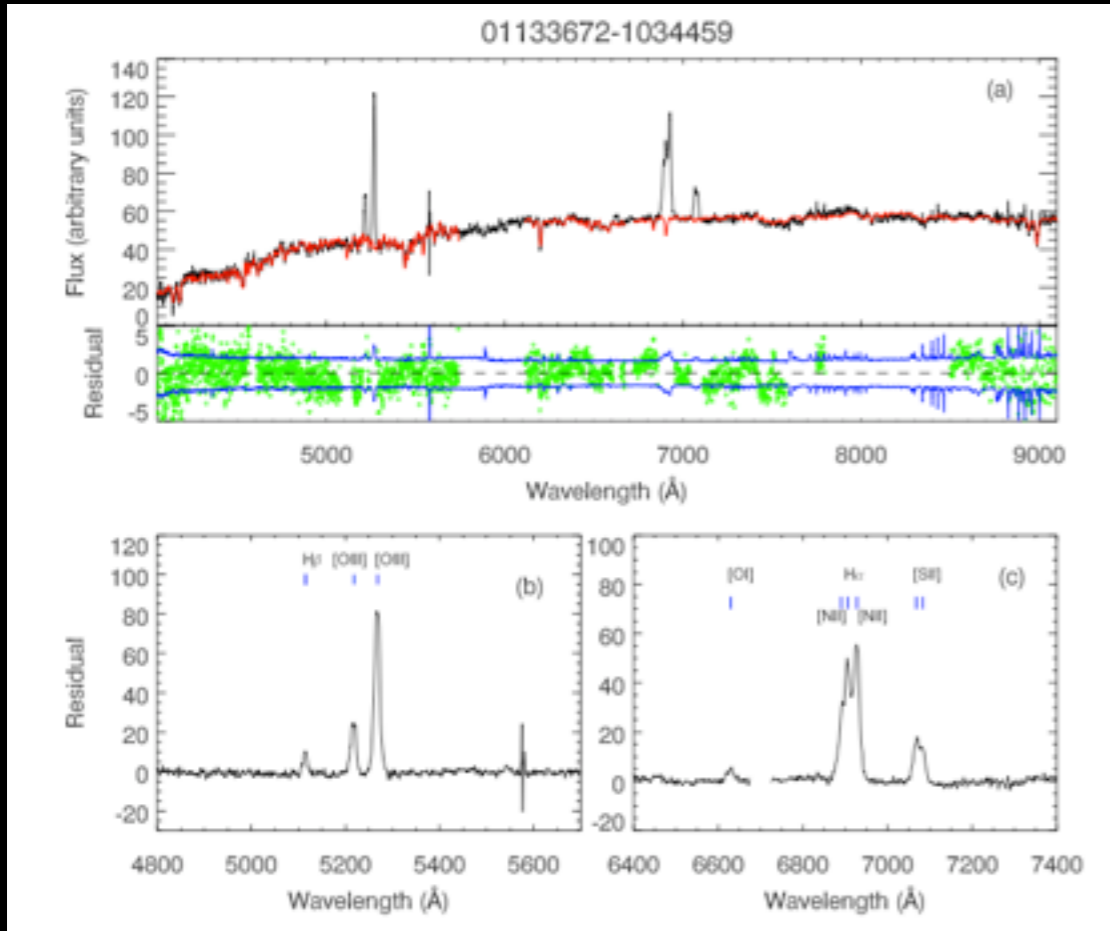
Spectra obtained

1

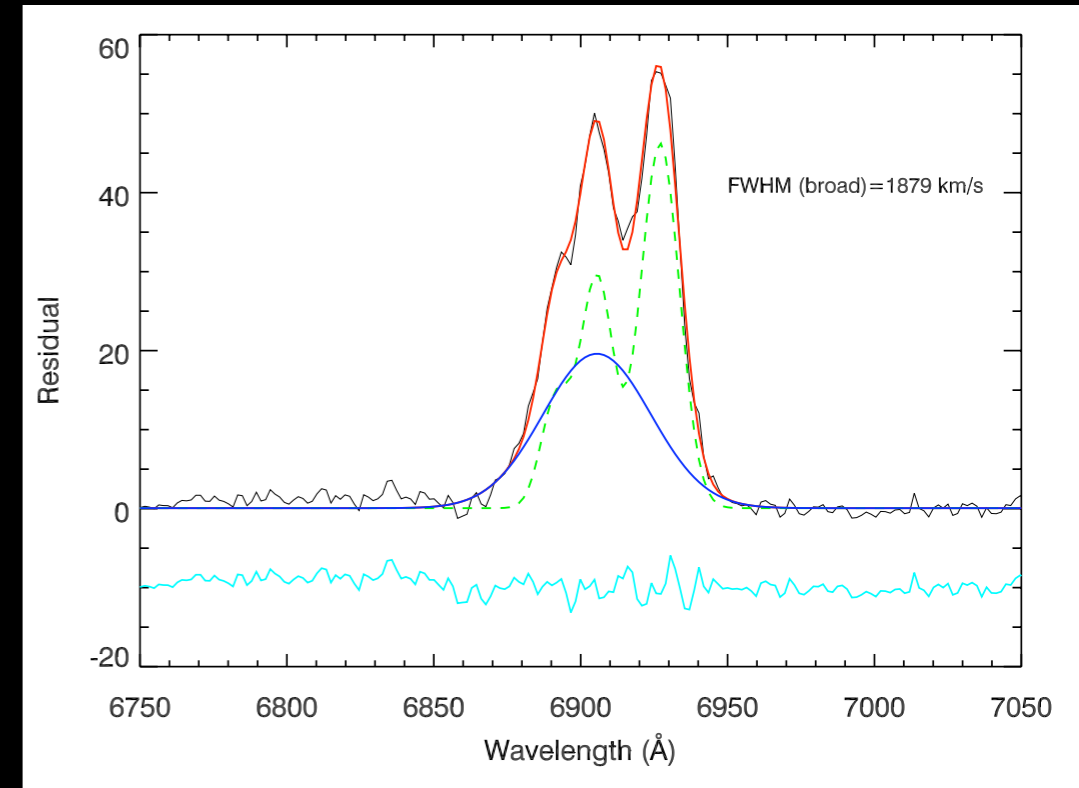


Spectral quality of subsamples

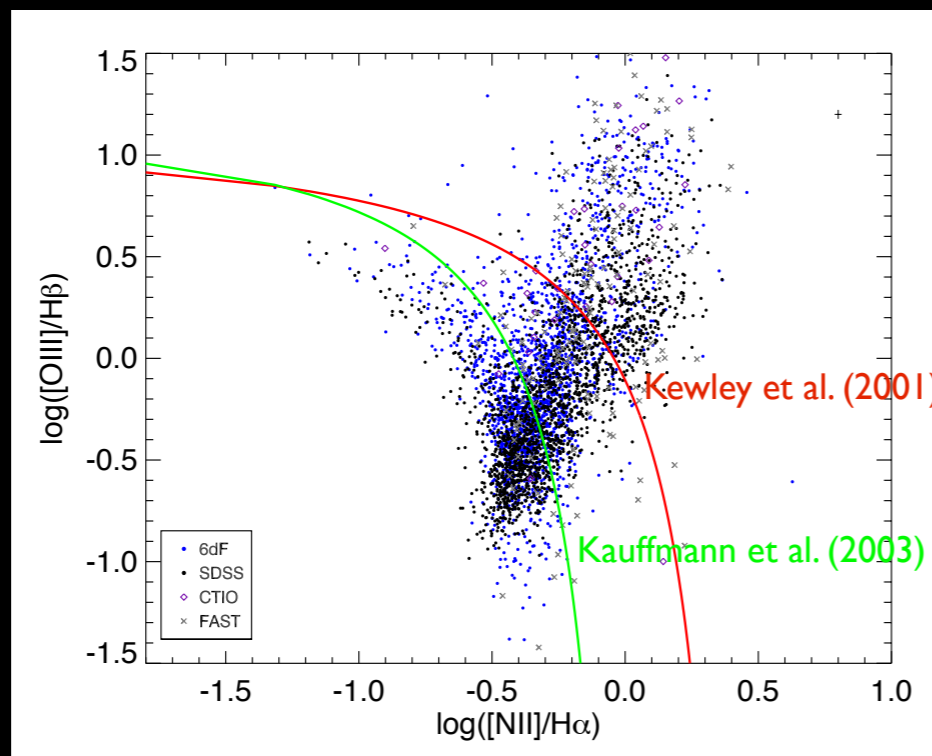
# Spectral Fitting and AGN Identification



Fit for and subtract host galaxy contribution



Gaussian fits of emission line fluxes

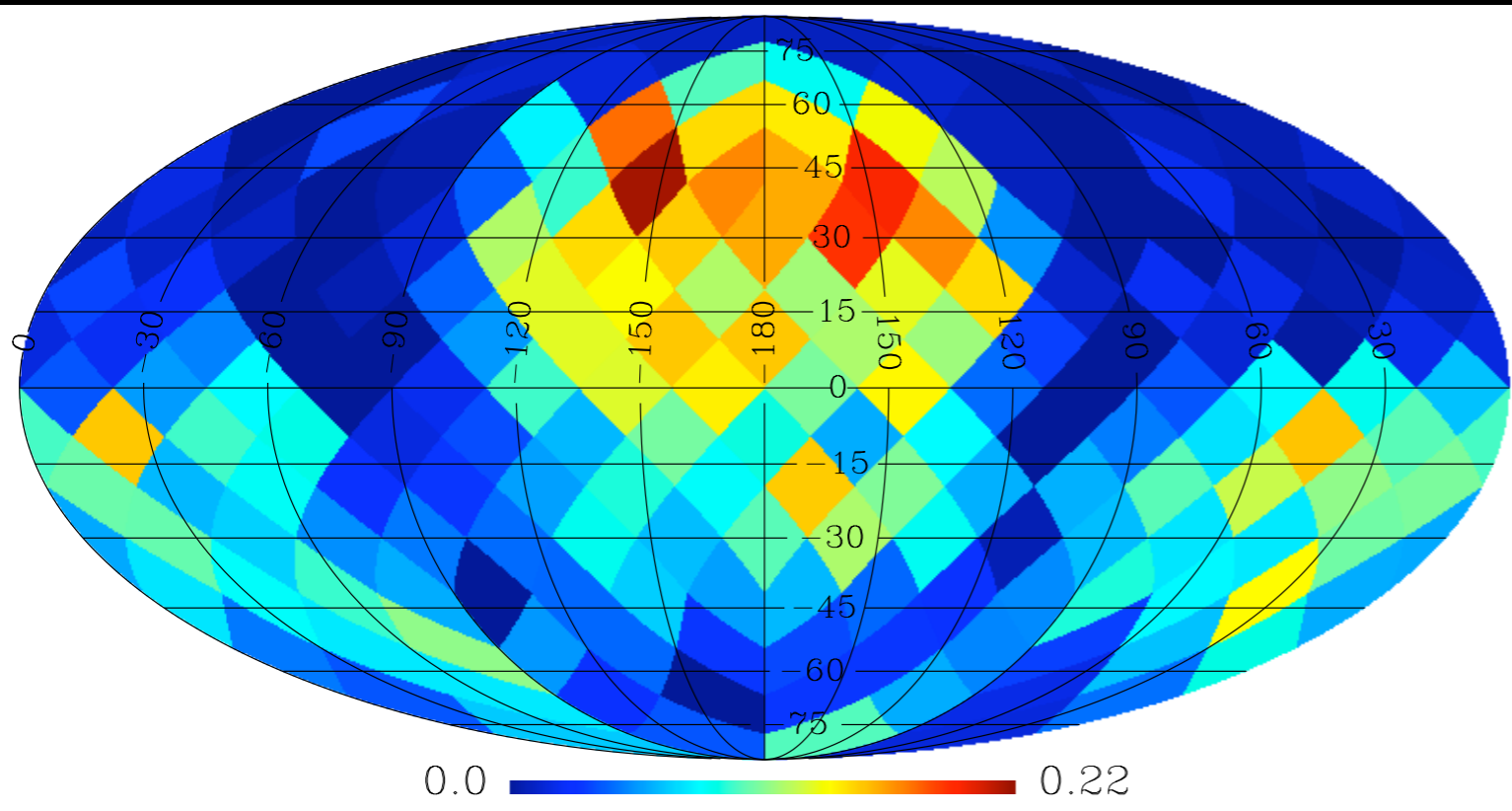


Identify Narrow Line AGN (Sy 2's)

Broad H $\alpha$

FWHM > 1000 km/s  
Identify Broad Line AGN (Sy 1's)

# The Catalog

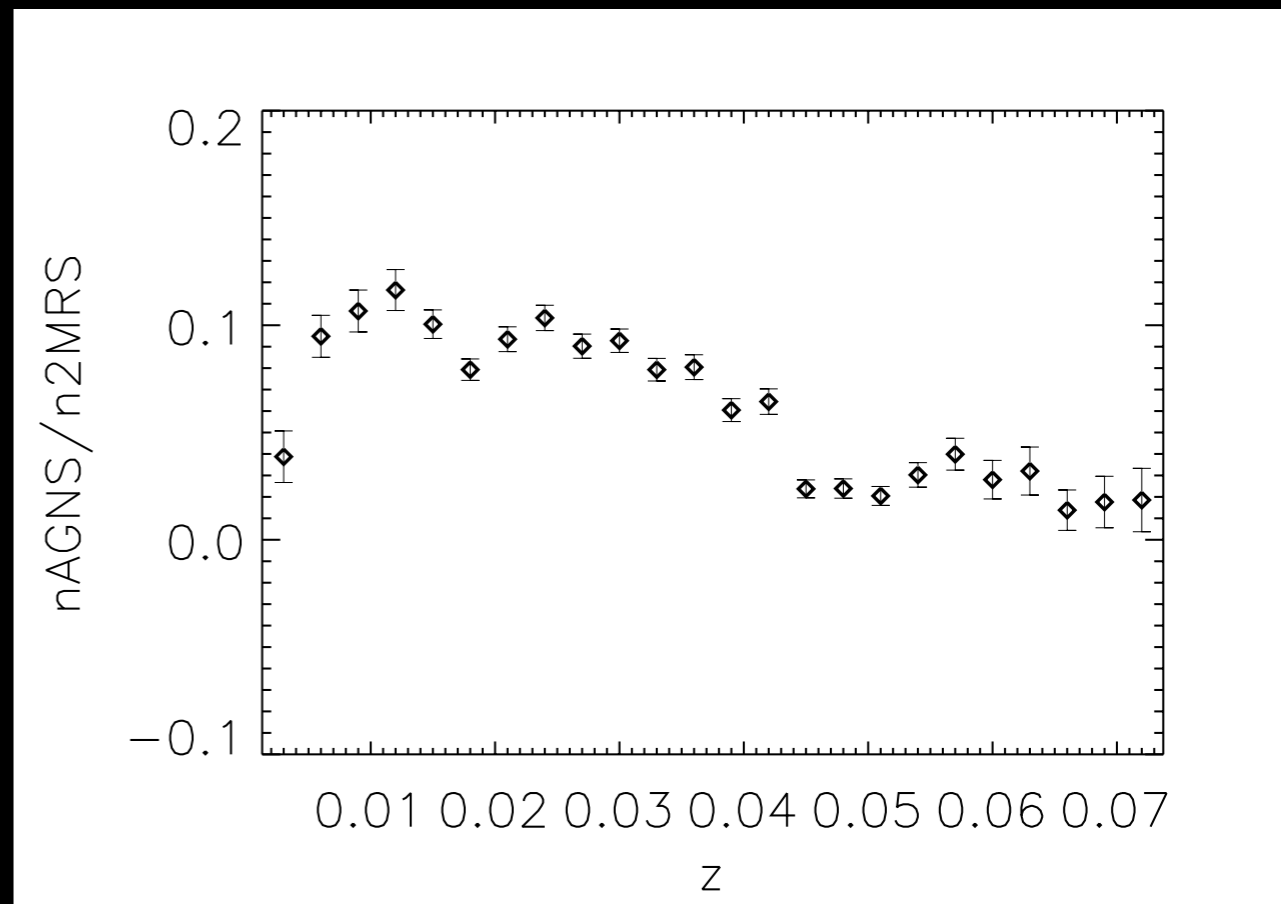


Sky distribution of AGN fraction

- Inhomogeneities in the North due to differences in spectral quality
- Galactic Plane excluded ( $|b| > 10^\circ$ )

<http://nyuad.nyu.edu/en/academics/faculty/ingyin-zaw/agn-catalog.html>

706 Seyfert 1's  
965 Seyfert 2's (Kewley (2001) criteria)  
2365 Seyfert 2's (Kauffmann (2003) criteria)



Redshift distribution of AGN fraction