6dF Galaxy Survey: Final Data Release

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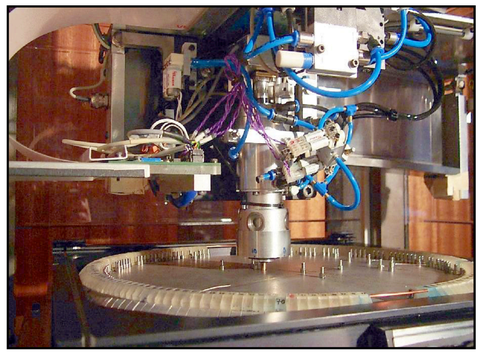
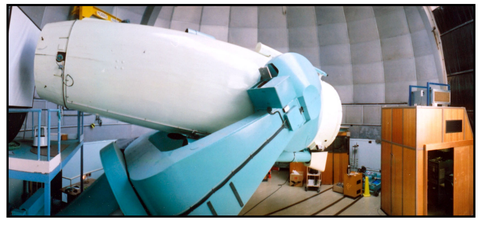
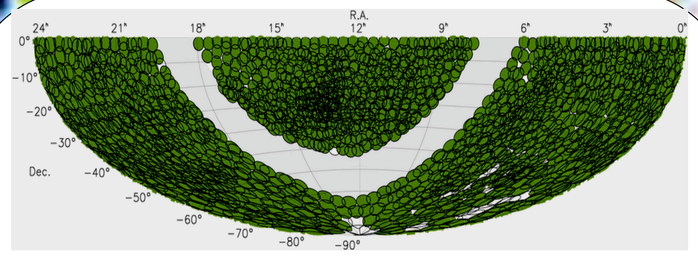
The 6dF Galaxy Survey (6dFGS)

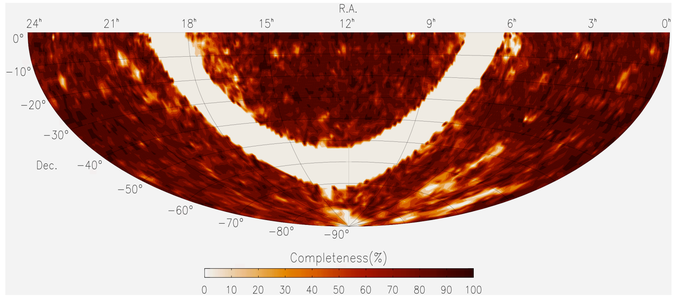
- The 6dFGS is a dual redshift / peculiar velocity survey of the local universe:
  - Primary sample selected from 2MASS to K_{tot}<12.65
  - Secondary samples: H<12..95, J<13.75, r<15.6, b<16.75
  - 11 extra samples: radio,X-ray, IRAS
  - Peculiar velocity sample: 15,000 brightest early-type galaxies
- Sample: 137k spectra, 117k galaxy redshifts over 80% of southern sky
- Survey used the 6dF spectrograph on the AAO's UK Schmidt Telescope…
  - –5.7º diameter FoV (25.5 deg^2)
  - –up to 150 objects simultaneously







Observed 1467/1598 fields; 92% of the southern sky at |b|>10°

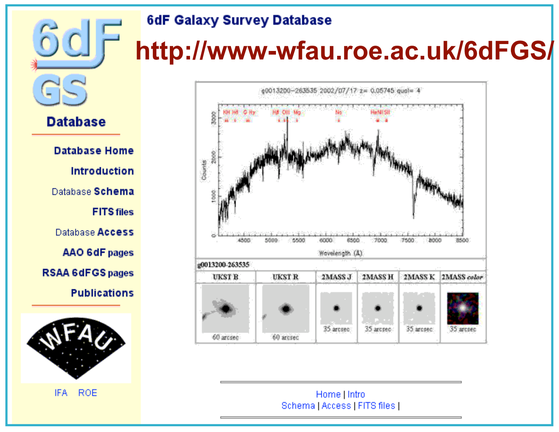


Mean redshift completeness for the *K*-band sample is 88%

6dFGS Online Database (April 2007)

Complete dataset from May 2001 to Jan 2006

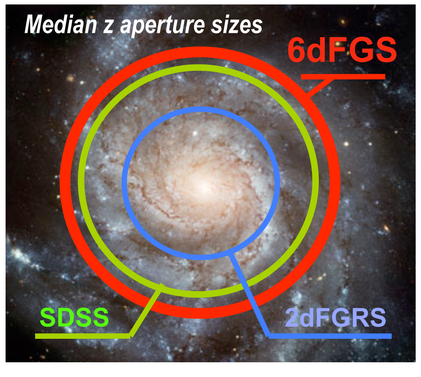
137k spectra, 117k unique redshifts, 1467 fields

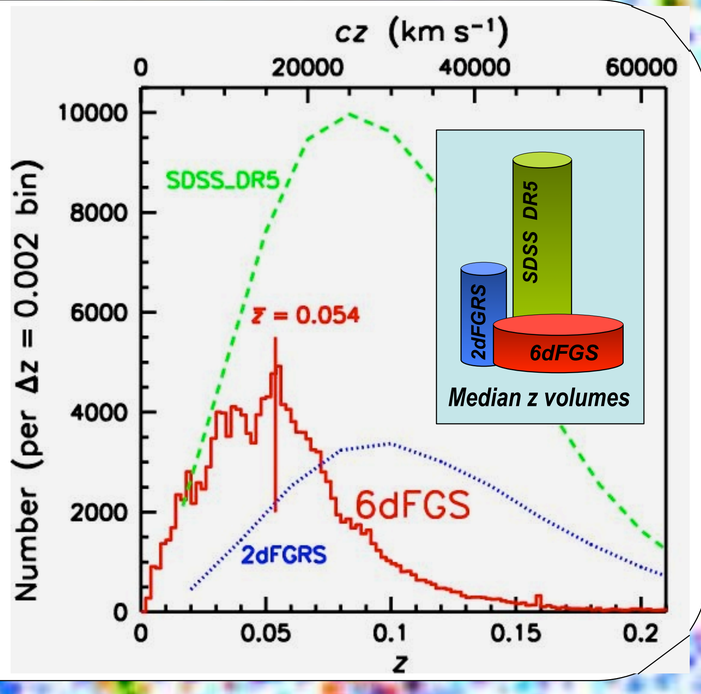


- Searchable using SQL commands or WWW.

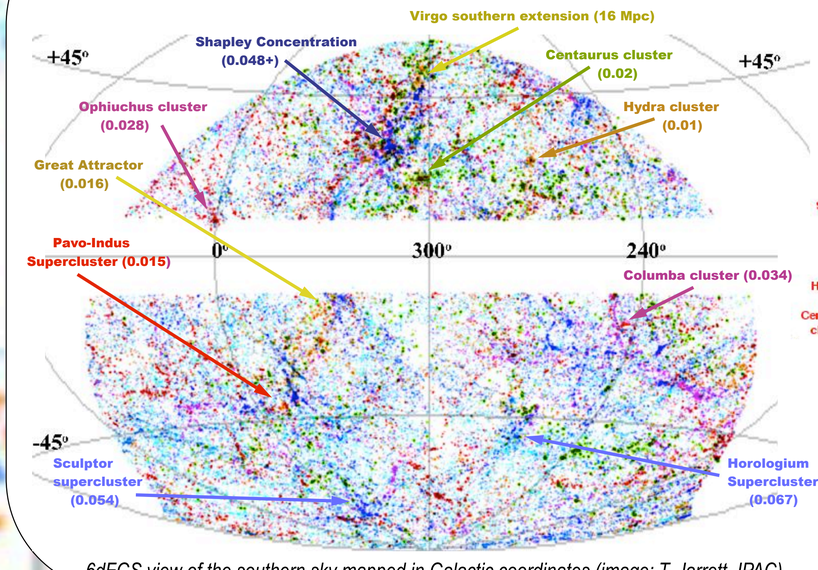
6dFGS vs 2dFGRS & SDSS (DR5)

- The median redshift of 6dFGS is z=0.054, about half 2dFGRS and SDSS (DR5)
- The corresponding 6dFGS volume is a third of SDSS (DR5) and about the same as 2dFGRS
- 6dFGS has half the redshifts of 2dFGRS and one-fifth the number of SDSS (DR5)





Local Large Scale Structures as seen by 6dFGS



6dFGS view of the southern sky mapped in Galactic coordinates (image: T. Jarrett, IPAC)