

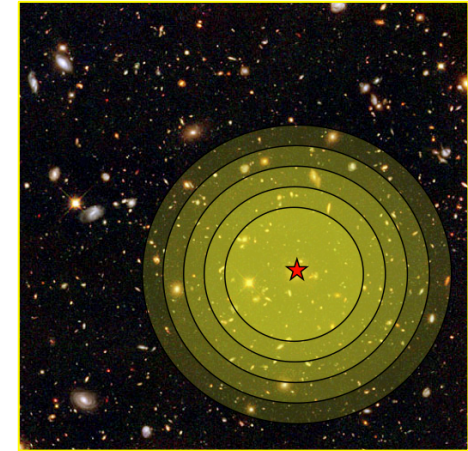
Large-scale homogeneity in the WiggleZ Survey: inconsistent with bulk flows?

Morag Scrimgeour, ICRAR, University of Western Australia
PhD Supervisors: Lister Staveley-Smith, Tamara Davis

- Transition to large-scale homogeneity of WiggleZ galaxies (Scrimgeour et al. 2012, submitted)
- $\sim 200,000$ redshifts, 1 (Gpc/h)^3 volume, $0.1 < z < 0.9$
- Used counts-in-spheres, $N(<r)$
- From this we calculate fractal dimension:

$$D_2(r) \equiv \frac{d \ln N(<r)}{d \ln r}$$

- Find excellent agreement with Λ CDM
- Within 1% of $D_2=3$ at 74 Mpc/h at $z=0.2$
- Is this inconsistent with bulk flows at $>100 \text{ Mpc/h}$?



$0.1 < z < 0.3$

