

Large-scale structure  
in the  
distribution  
of galaxies

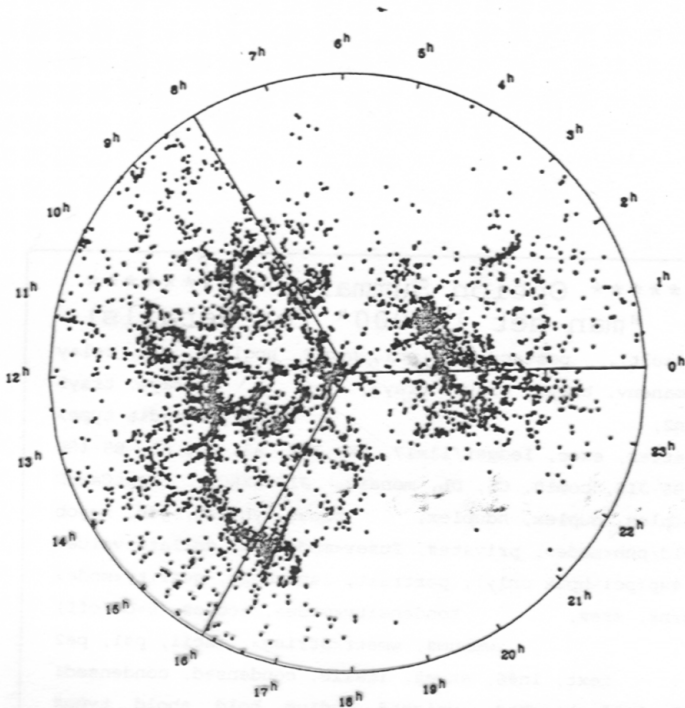
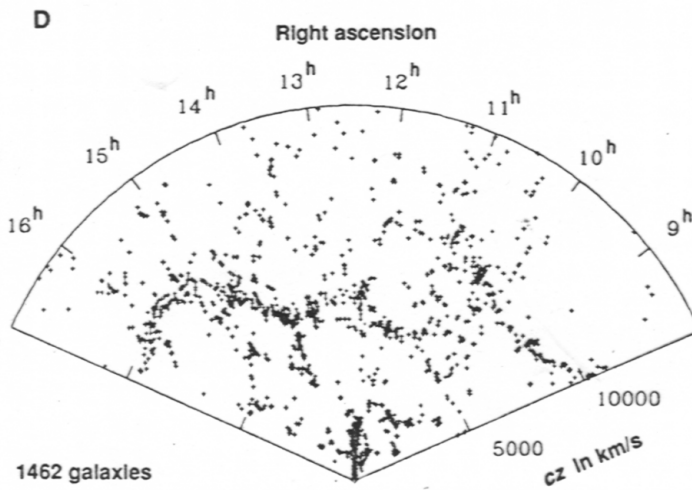
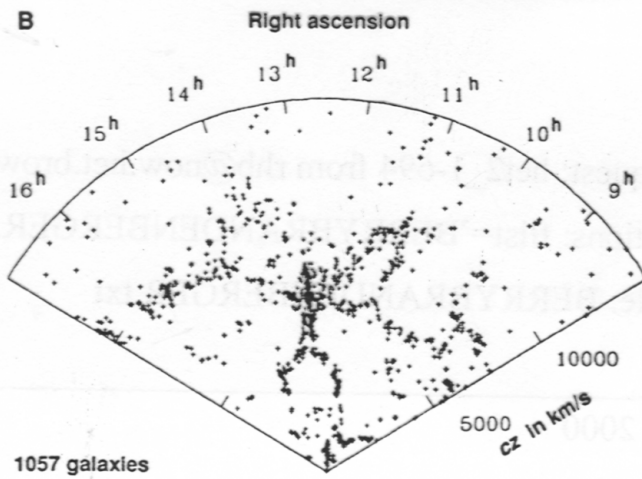


Fig. 5. A 360° view that shows the relationship between the "Great Wall" of Fig. 3, C and D, and the Perseus-Pisces chain of Fig. 3A. This slice covers the declination range  $20^\circ \leq \delta < 40^\circ$ . It contains all of the available data in the region (6112 galaxies with  $cz \leq 15,000 \text{ km s}^{-1}$ ; the sample is not magnitude limited). The blank regions are obscured by the galactic plane.

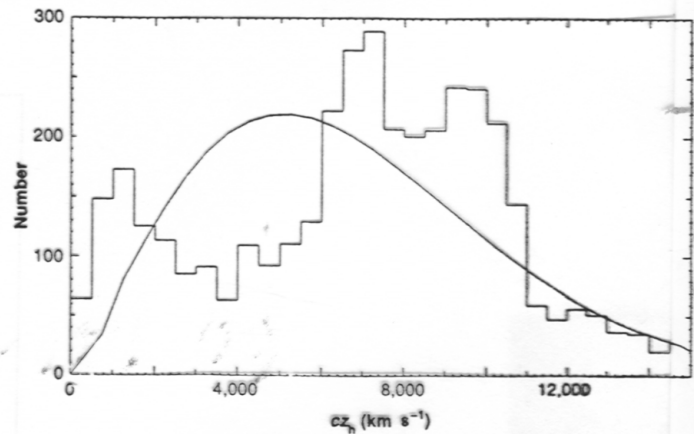
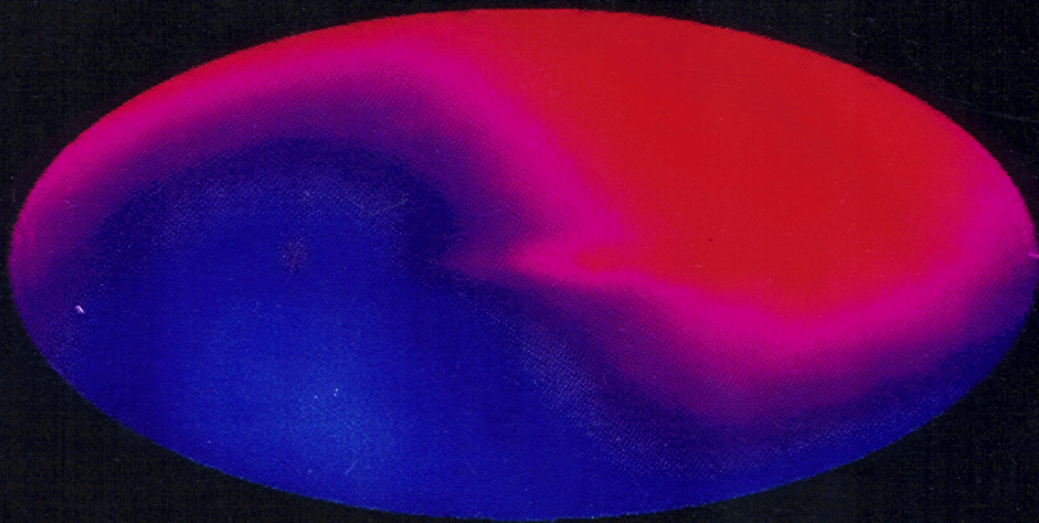


Fig. 6. A comparison of the redshift distribution expected for uniformly distributed galaxies (curve) with the observed distribution (histogram) for the data in Fig. 3, C and D.

M. Geller & J. Huchra, Science  
246, 897 (89)



# CMB Anisotropies (COBE)



$$\frac{\Delta T}{T} \sim 10^{-3}$$

dipole



subtract



← galaxy

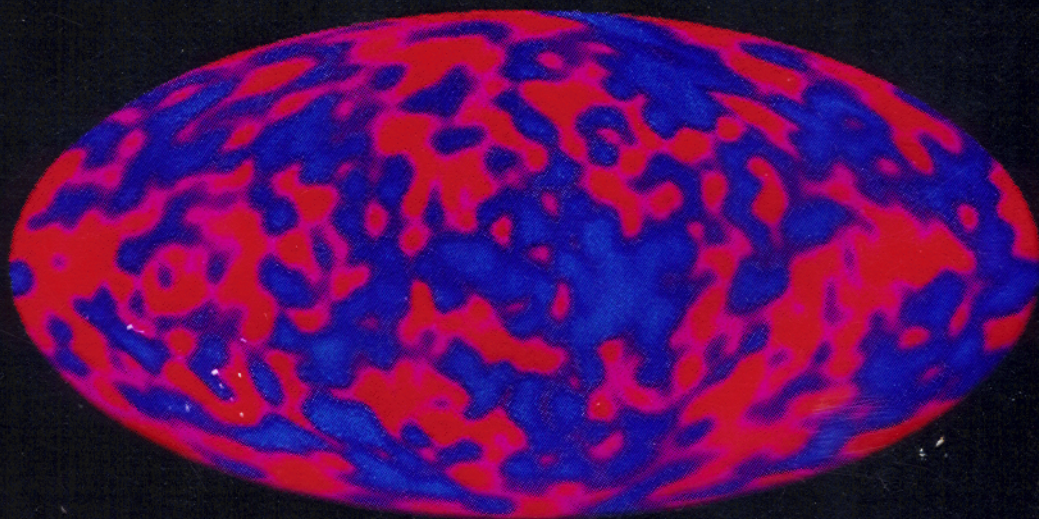
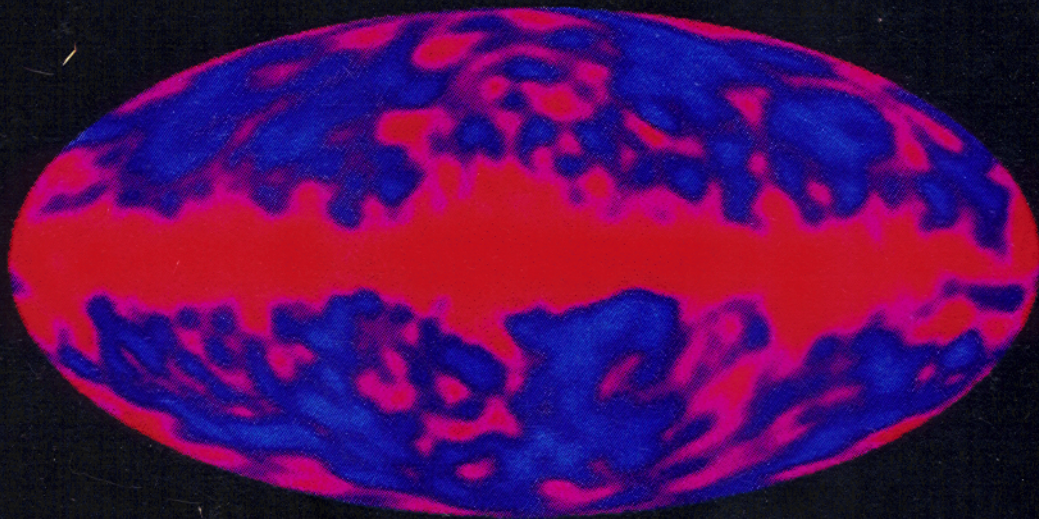


galactic  
subtract.



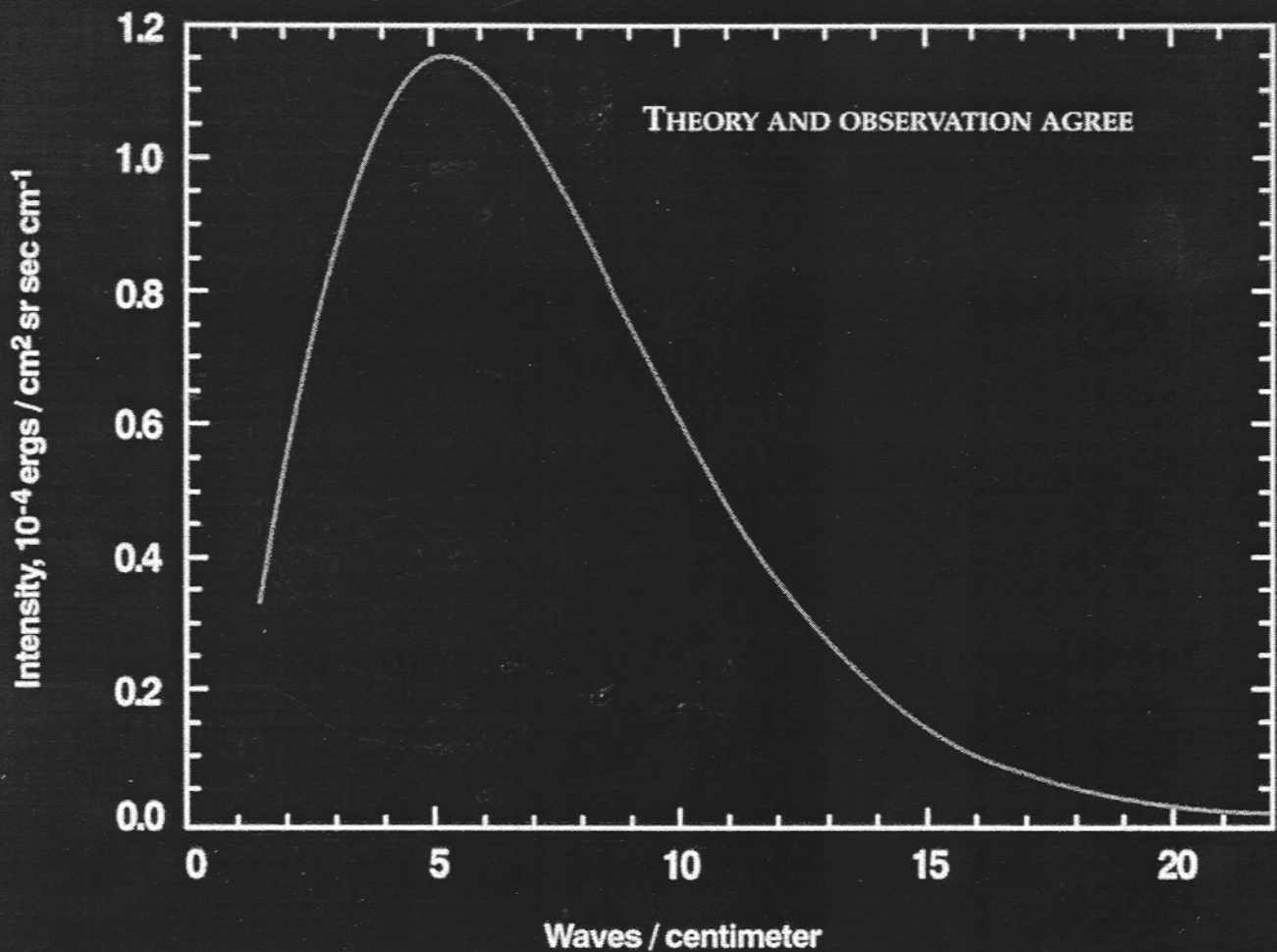
CMB -  
anisotrop.

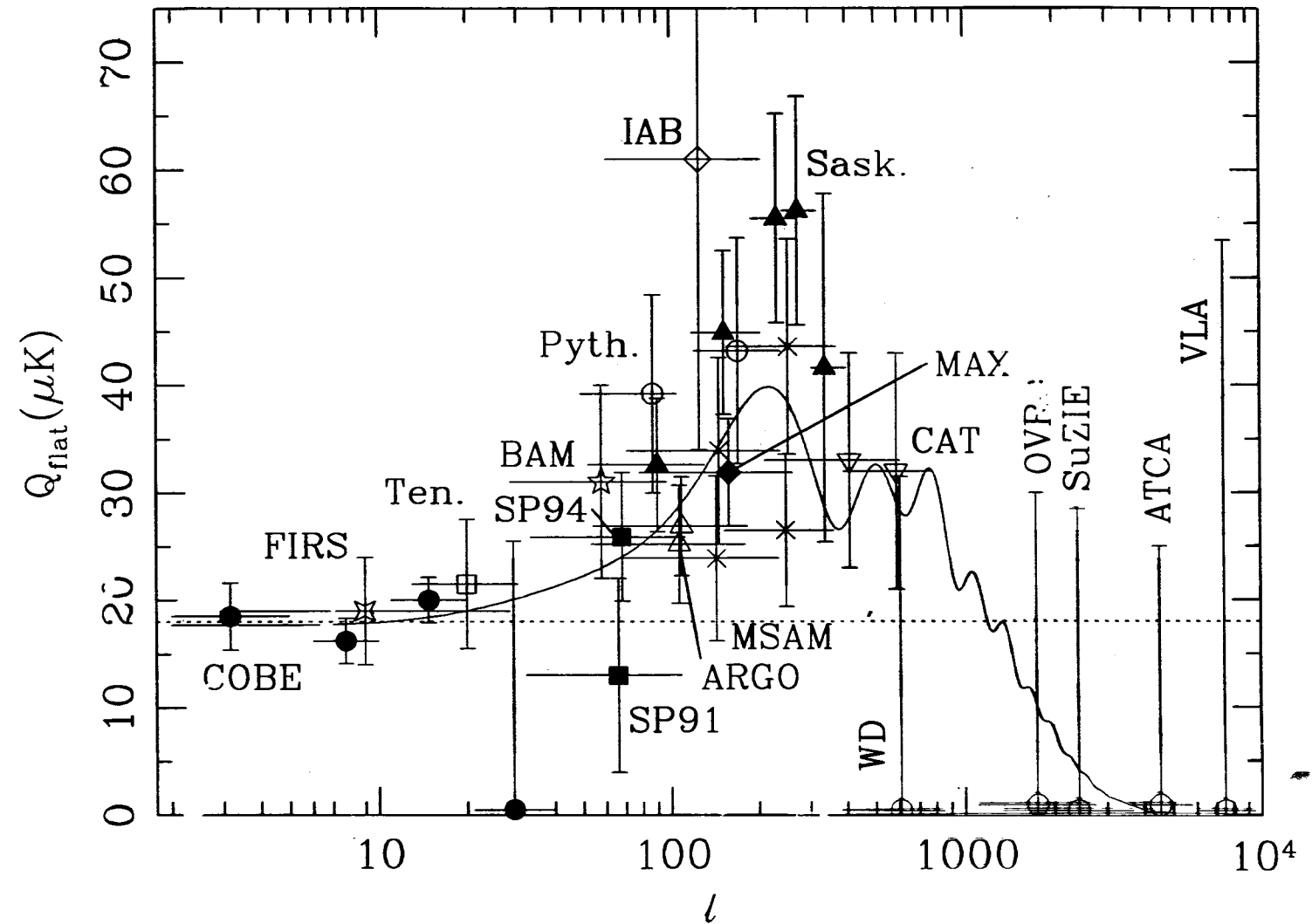
$$\frac{\Delta T}{T} \sim 10^{-5}$$

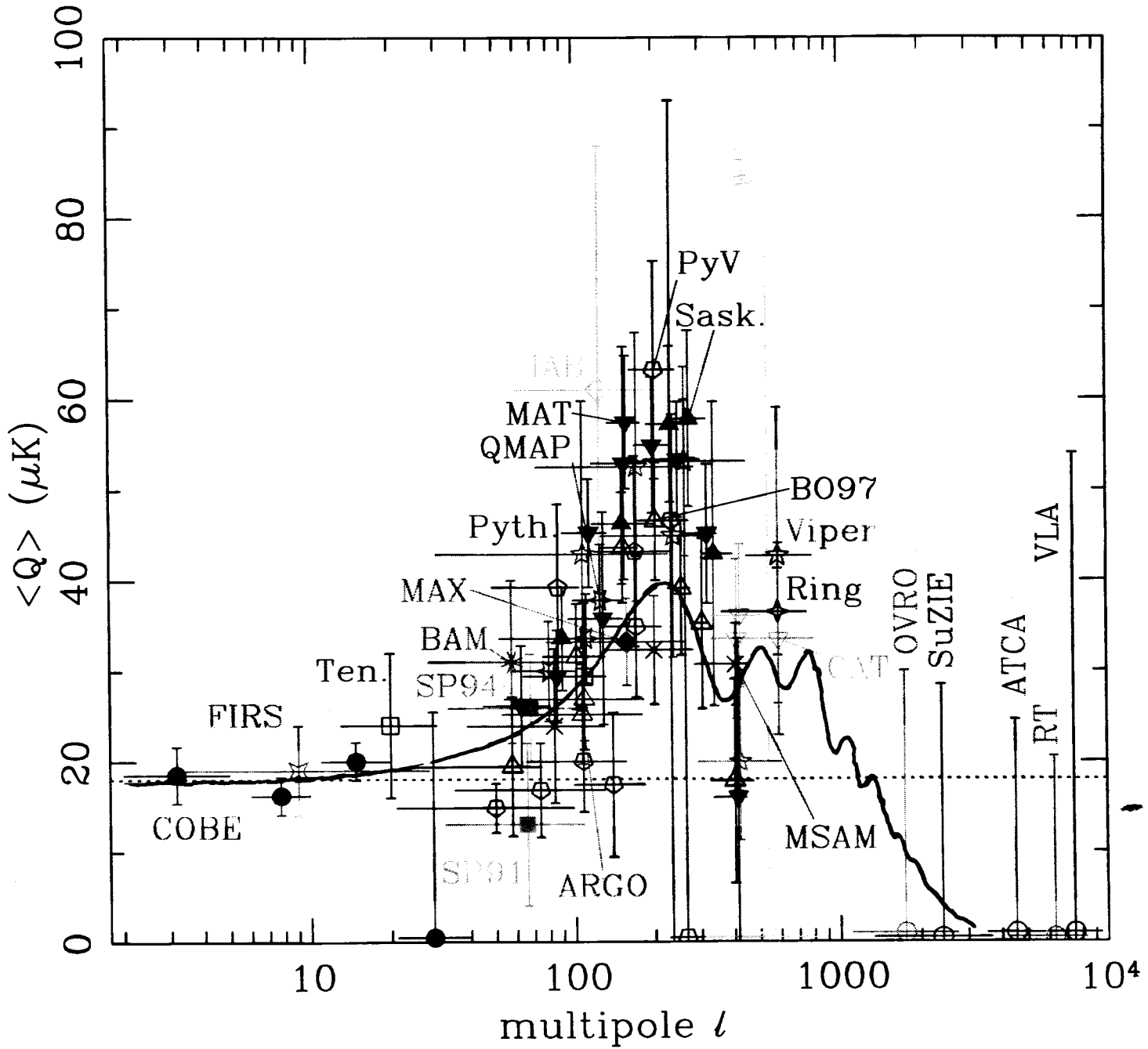




# COSMIC MICROWAVE BACKGROUND SPECTRUM FROM COBE







acoustic oscillations

scale invariant large angle fluctuations