

DISCUSSION FOLLOWING THE REPORT BY SHANDARIN

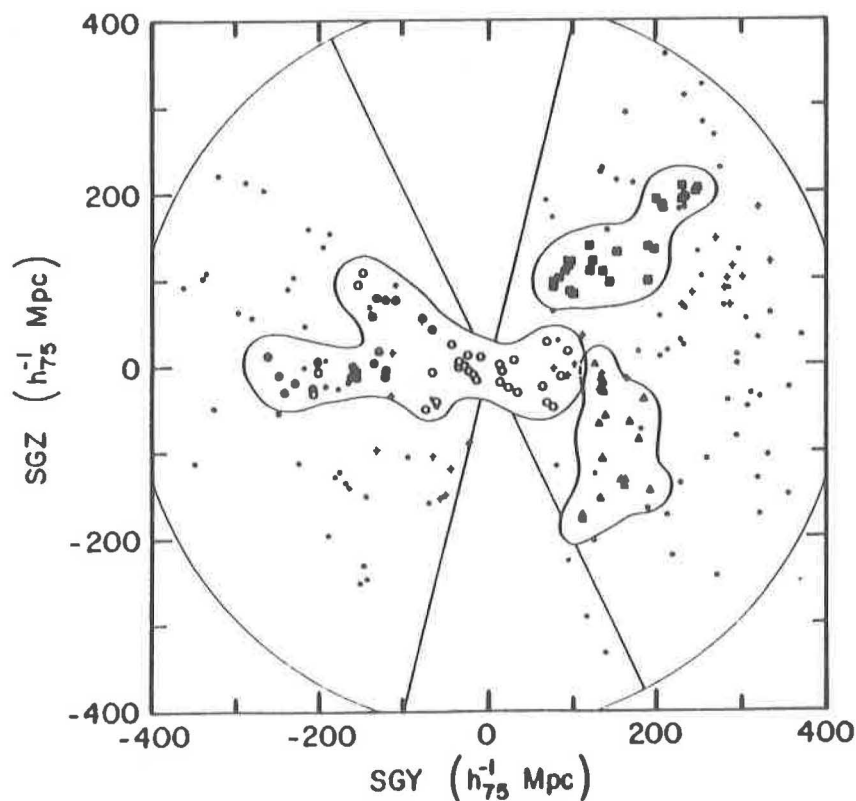
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It may be of interest to add a few remarks on the largest structures that have so far been outlined.

The most direct evidence is furnished by the distribution of rich galaxy clusters. In particular I want to refer to the correlation analysis of Neta Bahcall and R. Soneira. They found 16 superclusters, defined by a density enhancement by a factor of 20 or more. One of their superstructures, around the R Corona Borealis cluster, contains 22 Abell clusters of richness class greater than 1. It lies at a distance of 500 Mpc (if a Hubble constant of $50 \text{ km s}^{-1} \text{ Mpc}^{-1}$ is assumed) and has a diameter of about 400 Mpc.

Another analysis has recently been made by Tully. He made a percolation analysis of 214 clusters with measured redshifts less than 0.1c. He found that



the Local Supercluster is appended to a larger agglomeration including the Coma, Hydra-Centaurus, Perseus and Pisces-Cetus superclusters, and extending over a diameter of 500 Mpc ($H_0 = 50 \text{ km s}^{-1} \text{ Mpc}^{-1}$), and containing 48 Abell-class clusters, with an estimated total mass of $10^{18} M_\odot$. Beside this superstructure the percolation tests indicate the existence of two other structures of comparable size, one of which corresponds to the Corona Borealis supercluster identified by Bahcall & Soneira.

Tully comments on the elongated shape of the Pisces-Cetus superstructure, and on the apparent parallelism of its overall structure with that of the Local Supercluster.

A projection on the SGY-SGZ plane is shown in the figure on page 85. Squares refer to the Hercules-Corona Borealis superstructure, circles to that in Pisces-Cetus, triangles show the Sextans agglomeration. The results obtained with a percolation scale-length of $50 h_{75} \text{ Mpc}$ are indicated by filled signs, while for open signs this length is $60 h_{75} \text{ Mpc}$.