THE SOUTHWEST EXTENSION OF THE PERSEUS SUPERCLUSTER

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The main structure of the Perseus supercluster is defined by a long chain of clusters and rich groups of galaxies with very similar radial velocities ($\bar{v}$ = 5200 ± 200 km/s). The redshift survey performed by Gregory et al. (1981) has shown that most of the "field" galaxies are also members of the supercluster.

We have considered an area of 270 square degrees, between R.A. 23^h30^m and 1^h0^m and between Dec. 21°30' and 33°30', which lies along the axis of the Perseus supercluster beyond its previously supposed limits. The projected distribution of galaxies suggests a further extension of the supercluster in this direction. Ninety-nine galaxies brighter than M = 14.5 are present in this area. Almost all of them are "field" galaxies. Only four are members of the clusters A2634 and A2666. New redshifts have been obtained for 44 galaxies. With the data available in the literature (Palumbo et al. 1982), the radial velocities of 93 galaxies out of 99 are known.

We find that: a) A well-defined population of galaxies with $\bar{v}_o$ = 5240 km/s and σ_r = 312 km/s is present; this proves the further extension of the supercluster. b) As found in different fields by other authors, foreground galaxies are mainly grouped; only a few, if any, isolated galaxies are found. c) Background galaxies with 6000 < v < 10,000 km/s are mostly organized in an elongated structure encompassing the clusters A2634 and A2666, having similar velocities. A trace of filamentary structures, with bends and bifurcations, suggestive of the "cell" model (Einasto et al. 1980), seems to emerge.

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