

does not vary with the distance of the group. (iv) An estimate of  $\Omega$  from this median M/L ratio amounts to 0.05. (v) We confirm clearly the increase of the M/L ratio with the group size; this can be taken as an indication of the presence of dark matter around galaxies to a distance of 500 kpc. (vi) A prediction of the Milgrom's (1983, ApJ, 321, 280) theory is not verified: the ratios of the virial mass to the fourth power of the velocity dispersion do not cluster around a constant value.

This catalog of groups of galaxies is being applied to the study of the kinematics of the Local Universe.

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#### CORRIMIENTO AL ROJO DE GALAXIAS AUSTRALES

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Se está desarrollando un programa para la medición de corrimiento al rojo de galaxias australes con el telescopio de 2.15-m y la Z-Machine en el Complejo Astronómico El Leoncito (CASLEO). Las observaciones comprenden a galaxias con  $m < 15.5$  en la franja  $-17 < \delta < -2$ . Se comentan los alcances y los aspectos técnicos del programa.

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#### DISPERSION DE VELOCIDADES EN GALAXIAS ELIPTICAS

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Se ha iniciado un programa para la medición de dispersión de velocidades en galaxias elípticas ( $m < 14.0$ ) del hemisferio sur con el telescopio de 2.15-m y la Z-Machine en el Complejo Astronómico El Leoncito (CASLEO). Se comentan los detalles técnicos y alcances del mismo.

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#### LARGE SCALE PECULIAR MOTIONS IN THE SOUTHERN SKY

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Distances from the Tully-Fisher relation have been measured with the Parkes radio telescope for eight southern clusters in the redshift range 2500-5000 km/s. All the clusters have large (average 1000 km/s) positive peculiar velocities in a comoving frame in the microwave background rest frame. Outflow is seen on both sides of the Galactic Plane. The source of the large scale flow, if gravitational in origin, lies at or beyond the limit of our sample.

We have also measured peculiar velocities for a sample of 48 late type spirals which are located in the general vicinity of the Great Attractor (GA). We have used an imaging Fabry-Perot to measure H $\alpha$  rotation curves for this sample. A non-linear infall model is used to predict the position of the caustic surface as a function of distance from the GA. The data are then compared directly to that prediction. We also use all available velocities to directly search for the caustics in redshift space. We explicitly incorporate distance errors into the models and adopt a Malmquist correction which is appropriate for a highly clustered distribution. Our results are: 1) we can not identify a symmetric infall pattern centered on the GA, 2) the signature of backside infall is very weak but can be enhanced by the use of an improper Malmquist correction, 3) galaxies in the vicinity of the Centaurus cluster have a mean observed peculiar velocity of 1500 km/s, 4) galaxies in the vicinity of OCA 3574 seem to participate in a small scale infall pattern, 5) a bulk flow "infall" pattern, centered on a kinematic distance of 4350 km/s, provides the best means of correcting the observed velocity so as to produce a Tully-Fisher relation with the least amount of scatter.

We conclude that the real GA is unlikely to be a distinct mass entity but rather represents the general collection of overdense regions in this portion of the sky. Consideration of the morphology of this region in redshift space, coupled with the large observed peculiar velocities in the vicinity of Centaurus, strongly suggests that this structure is a main contributor to the observed flows. However, positive velocity residuals continue to be seen in galaxies with distances as large as 80/h Mpc from the observer. The overall behavior of the data shows that we have not yet isolated the true source of the observed peculiar velocities.

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