Title: Arecibo Pisces-Perseus Supercluster Survey: Declination Strip 25

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Abstract

The Arecibo Pisces-Perseus Supercluster Survey (APPSS) is an observing project by the Undergraduate ALFALFA Team, aimed at determining the mass of the Pisces Perseus Supercluster through measurement of peculiar velocities from HI line detections. The survey targeted approximately 600 galaxies selected based on SDSS and GALEX photometry as likely to contain HI. We reduced Arecibo L-Band Wide observations for 90 galaxies near declination 25 degrees, 40 of which showed HI emission. 58% of those 40 galaxies were below 10,000 km/s recession velocity and thus will provide useful information to draw conclusions from. We determined the recession velocity, velocity width, and HI line flux for each detection. We discuss our results for APPSS galaxies and for ALFALFA detections near this declination strip. By combining results from all strips, APPSS will determine which galaxies are associated with the Pisces-Perseus Supercluster, and their peculiar velocities will be measured via the baryonic Tully-Fisher relation. This work has been supported by NSF grants AST-1211005 and AST-1637339.