

Low Mass Dark Matter Halos in Loose Groups of Galaxies

D.J. Pisano

Australia Telescope National Facility

I present the results of a Parkes Multibeam and AT Compact Array HI survey of six loose groups of galaxies analogous to the Local Group. This survey was sensitive to HI-rich objects in these groups to below 10^7 solar masses of HI, and was designed to search for low mass, gas-rich satellite galaxies and potential analogs to the high-velocity clouds seen around the Milky Way. While the survey identified a small number of dwarf galaxies, no star-free HI clouds were discovered. I will compare the properties of these groups with the Local Group, and discuss the implications of these findings for the nature of the high-velocity clouds and for models of structure formation.

POS (BDMH2004) 031

*BDMH 2004 – Baryons in Dark Matter Halos
5–9 October 2004
Novigrad (Croatia)*