

HI Observations of Isolated Triple Galaxies

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Abstract. We present preliminary results from Effelsberg 100-m HI observations of a sample of 27 Triple Galaxies selected from the Karachentseva Catalogue of Isolated Triplets. These observations were complemented with optical CCD BVR I H α images taken at Observatorio Astronómico Nacional, San Pedro Mártir, México. Our results confirm that a significant fraction of the observed sample are physically associated.

1. Procedure and Results

Triplets, loose groups consisting of three galaxies, are the obvious limit of what could be called a ‘small group’ of galaxies. Karachentseva et al. (1979; 1988) obtained a sufficiently complete and homogeneous listing of isolated triple galaxies from the Palomar Sky Atlas. The strong degree of isolation applied to those systems translates into an environmental simplicity, compared to more rich groups and clusters, providing an unique opportunity to make a study of the structural, kinematical and dynamical properties of the member galaxies in a non-equilibrium configuration.

A preliminary study of the HI content in 27 Isolated Triple systems, shows that more than 50% of the observed sample is HI deficient. Some of the most optically perturbed systems are also the most HI deficient.

References

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