

Siblings, friends and acquaintances: Testing galaxy association from photometric redshifts

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Abstract / The accurate classification of the environments where the galaxies belong becomes a key point in order to understand its role in galaxy evolution. The aim of this ongoing project is to take advantage of a large sample of galaxy halos extracted from a high resolution cosmological dark matter simulation to reproduce the data available for observational surveys and test the methods. Spectroscopical surveys have proved to be useful on this issue, but their cost in observational time constitute an important limitation. Then, the estimation of photometric redshifts is an attractive approach to carry on surveys of groups/clusters of galaxies. Here we present preliminary results, simulating the data from photometric surveys of the nearby Universe, and considering a set of wide and narrow band filters, particularly those used in the S-PLUS collaboration.

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