

Impact of blending on galaxy clusters using DC2 catalogs

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Galaxy clusters trace the highest peaks in the density of the Universe. Therefore, their abundance is a powerful probe to constrain cosmological parameters, expansion of the Universe and give information on the growth of structures. However, since the density of galaxies is significantly higher, these latter may appear to overlap on the line of sight and have their respective fluxes blended. This effect, called blending, significantly distorts individual galaxy measurements such as shapes or photometric redshifts, hence the need to study it.

This talk will present matching algorithms used to identify blended systems from DC2 catalogs, as well as distribution and proportion of blends in galaxy clusters. The impact of blending on shear profiles and inferred cluster masses will also be discussed.

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