

## [UGC-10] A Study on the Star-forming Dusty Elliptical Galaxy, NGC 855

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We study the dust and star-formation characteristics of a nearby dwarf elliptical galaxy, NGC 855. With various archival data from ultraviolet to far-infrared, we build up the spectral energy distribution (SED) that can give us constraints on stellar populations, dust characteristics, star-formation history, etc. From GALEX and SDSS data, slightly de-centered bluer central core is confirmed, where star formation might take place. This regions is coincident with seemingly dis-integrated cores detected by Spitzer IRAC data and with bright H $\alpha$  feature observed at ground-based telescope. The PACS and SPIRE data by Herschel Space Observatory show the dominant dust features at the center. Lastly, we propose necessary follow-up observations with ground-based telescopes to investigate spectral properties of NGC 855.

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## [UGC-11] Classifying and analyzing galaxy pairs by their interacting features

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Interacting galaxy pairs are important for study of galaxy evolution. We selected 8,542 interacting galaxy pairs out of 593,514 KIAS-VAGC galaxy sample with  $0.02 < z < 0.047$  and  $r\_mag < 17.6$ . We then classified by their interacting features into 6 types by visual inspection. We focused on two types whose spiral tidal features extend to the center of early type galaxy (ETG) or to the edge of ETG. We compared galactic parameters of these two types with those of entire 8,542 pairs as well as between the two types. Preliminary result shows both types are very close pairs (projected distance  $\sim 20$  kpc). Spiral galaxies in the center type are more massive but less bright than those in edge type. ETGs in the edge type are brighter but not more massive than those in the center type. The center type has a mass ratio 3.4 times greater than the edge type, but the edge type has a higher angular momentum than the center type.