

**[7GC-05] A Multi-wavelength Study of a Pair of Interacting BCDs  
: ESO 435-IG20 and ESO 435-IG16**

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Blue Compact Dwarf galaxies (BCDs) are low-mass galaxies with recently enhanced star formation activity. Since the discovery of old stellar population in the BCDs, a number of hypotheses have been suggested as the origin of the current active star formation. One theory is tidal interactions such as fly-by and merger. In this study we test this hypothesis using a pair of BCDs, ESO 435-IG20 and ESO 435-IG16 that are separate by only  $\sim 80$  kpc in projection at a similar redshift (at a  $\sim 9$  Mpc distance). In the HIPASS survey, intergalactic atomic hydrogen envelope has been found to be covering both galaxies, making the pair a good candidate for the case where the star formation has been triggered by tidal interaction. We probe the gas morphology and kinematics of the BCD pair using ATCA HI data in order to find the evidence of tidal interaction. We also estimate star formation rates in the pair based on H $\alpha$  emission and UV continuum, and compare with other dwarf galaxies to investigate how responsible the tidal interaction is for the enhanced star formation in this case.

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