

### [7GC-03] WFC3 study on the early-type galaxy NGC4150

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Recent surveys have shown that many early-type galaxies have signatures of ongoing or recent star formation (RSF). These RSF galaxies show blue integrated UV-optical colours that set them aside in the NUV integrated colour-magnitude relation. Among them, NGC 4150 has been observed using the Wide Field Camera 3 (WFC3) on board the Hubble Space Telescope to inspect the galaxy with higher spatial resolution. In the WFC3 data, the galaxy reveals ubiquitous near-UV emission and remarkable dusty substructure. Our analysis shows this galaxy to lie in the near-UV green valley, and its pixel-by-pixel photometry exhibits a narrow range of UV-optical colours that are similar to those of nearby E+A (post-starburst) galaxies, and lie between those of M83 (an actively star-forming spiral) and the local quiescent early-type galaxy population. This work reaffirms our hypothesis that minor mergers play a significant role in the evolution of early-type galaxies at late epochs.

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### [7GC-04] What do star clusters in Stephan's Quintet tell us?

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We investigate star clusters in the Stephan's Quintet using Wide Field Camera 3 of the Hubble Space Telescope and three filters (F438W, F606W, F814W). Stephan's Quintet located at  $\sim 85$  Mpc, so most star clusters are seen like point source even in HST image. We perform the Point Spread Function fitting photometry to find star clusters. Then we have selected 749 star cluster candidates by visual inspection. Using simple stellar population models (Bruzual & Charlot, 2003), we estimate ages of these star clusters. Many young star clusters found in tidal features of NGC 7318 and NGC 7319. Also star clusters in the shocked region of NGC7318 have younger age than those in NGC 7319 tidal tail. These result implies interaction which disrupt NGC 7319 first, and collision between NGC 7318 A/B occurred. In contrast, old star clusters are mainly located in NGC 7317 and in the center of other galaxies.

Implications of these result will be discussed.