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## A Study of Star Formation by $H\alpha$ Emission of Galaxies in the Galaxy Group NGC 4213

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This research aims to study hydrogen alpha emission, corresponding to star formation of galaxies in the NGC 4213 group that has an average recession velocity of 6,821 km/s. The imaging observations with broad-band filters (B, V and  $R_c$ ) and narrow-band filters ( $[S II]$  and Red-continuum) were carried out from the 2.4-m reflecting telescope at Thai National Observatory (TNO). There are 11 sample galaxies in this study, consisting of 3 elliptical, 1 lenticular and 7 spiral galaxies. It was found that the late-type galaxies tend to be bluer than early-type galaxies, due to these galaxies consist of relatively high proportion of blue stars. Furthermore, the equivalent width of hydrogen alpha ( $EW(H\alpha)$ ) tends to increase as a function of morphological type. This indicates that star formation in late-type galaxies taking place more than the early-type galaxies. Furthermore, a ratio of the star formation rate to galaxy mass also increases slightly with the galaxy type. This could be due to the interaction between galaxy-galaxy or tidal interaction occurring within the galaxy group.

**Primary author:** MAUNGKORN, Sakdawoot

**Co-author:** Dr KRIWATTANAWONG, Wichan (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand)

**Presenter:** MAUNGKORN, Sakdawoot

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