X24b Star formation of major mergers

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Galaxy interactions are a very fundamental process when discussing galaxy formation and evolution, but many processes that occur during interactions are not fully understood, and quantitative studies are not trivial. We focus on galaxy mergers and how they affect star formation activity. When galaxies are merging, we assume that the galaxy morphology and physical quantities such as gas vary depending on the distance between the galaxies, which situation can be one of the factors of enhancing star formation. Therefore, the stages of merging galaxies are related to their star forming activities and we expect to verify the factors which trigger star formation with the analysis of morphology and merger stages. In this study, we use local galaxies in SDSS Data Release 7 within the redshift $z < 0.1$. and merging galaxies are major merger identified by Galaxy Zoo Project (Darg et al. 2010). We estimate star formation rate for each merging galaxies and investigate the relation of stellar mass and specific star formation rate based on morphology and merger stages, compared to the non-merging galaxies. Then we will discuss triggers of star formation in major merger based on the comparison.