

## X47a Identification and Investigation of Interacting Galaxies Using Spatially Resolved Data

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Galaxy interactions are an important fundamental process when it comes to discussing galaxy evolution, but many studies conducted on the topic are case studies, and field studies with a large sample are difficult. This is due to the fact that identification of interacting galaxies is mainly done through classifying optical images or the use of Convolutional Neural Networks trained using such images, both of which are susceptible to misclassify certain types of galaxies such as post-mergers. Such misclassifications can hinder the science of interacting galaxies. We suggest a more physically motivated identification method. Using the spatially resolved dynamical data of galaxies provided in the Mapping Nearby Galaxies at APO (MaNGA: Bundy et al. 2015) catalogue, we have conducted a classification of interacting galaxies based on their dynamical structure. To identify currently interacting galaxies, we looked for features such as asymmetries in the stellar velocity maps. To identify post-mergers, we looked for counterrotation in the stellar velocity maps, a feature found in the simulational results of Johnston et al. (2018). We obtained the star formation histories of these identified galaxies using the MaNGA FIREFLY Value Added Catalogue (Goddard et al. 2017), and found them to be consistent with the results of simulations in previous works, such as Moreno et al. (2015). We will discuss this and other findings, as well as future prospects.