## X22a  Identification and Investigation of Interacting Galaxies Using Spatially Resolved Kinematic Indicators

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Galaxy interactions and mergers are a fundamental and important process in galaxy evolution. However, we have a limited understanding of the process. One of the reasons of this is due to a lack of an accurate identification method, resulting in a lack of the complete catalogue of interacting galaxies. Previously used methods such as visual identification of images suffer from incomplete data and misclassifications.

We present a physically motivated method, focusing on galaxy kinematics. Galaxy interactions can cause disturbances in a galaxy's kinematic structure. Thus, in interacting galaxies, we expect to find complex and disturbed kinematics such as asymmetries and distortions. We have visually inspected the spatially resolved kinematic maps of galaxies in the Mapping Nearby Galaxies at Apache Point Observatory (MaNGA: Bundy et al. 2015) catalogue, identified and investigated galaxies with disturbed kinematics. We were able to find numerous interacting galaxies that were classified as uninteracting using visually based methods, however we also encountered limitations with using only kinematic indicators. We discuss our findings and future prospects for this method.