X35a The star formation properties of merging galaxies at z<2.5 and separations 3-15 kpc

Andrea Silva (NAOJ), Danilo Marchesini (Tufts University), John Silverman (IPMU), Rosalind Skelton (South African Astronomical Observatory), Daisuke Iono (NAOJ), Nicholas Martis (Tufts University), Z. Cemile Marsan (York University), Ken-ichi Tadaki (NAOJ), Gabriel Brammer (Space Telescope Science Institute), Jeyhan Kartaltepe (Rochester Institute of Technology)

We present a study of the influence of galaxy mergers at 0.3 < z < 2.5 on star formation. Mergers are selected from the CANDELS/3D-HST catalog using the algorithm developed in Lackner et al 2014. The galaxy nuclei have projected separation between 3-15 kpc. We found no significant difference between the star formation activity in merging and non-merging galaxies and found that only 9% of the merging galaxies are starbursts based on their position in the star formation main sequence. The lower-mass members in the mergers have higher sSFR than their high-mass counterparts suggesting that merging has a more dramatic impact on the star formation activity in the low-mass companions. This sample of mergers is likely still in a early stage and are yet to reach the maximum level of star formation activity.