

ABSTRACT

We examine the effect of environment on star forming galaxies across the Coma supercluster. Coma supercluster comprises two rich clusters of galaxies separated by 30 h-1Mpc with a filament of galaxies crossing them. We analyse UV imaging from the Galaxy Evolution Explorer (GALEX) and optical spectroscopic and imaging data from the Sloan Digital Sky Survey (SDSS) to investigate the link between large-scale environment and various properties like broadband colour, morphology, star formation (SF) etc. for the galaxies residing in the Coma supercluster. We statistically examine the environmental dependence on galaxy properties by employing KS test for 1) all galaxies in an environment and 2) dwarfs and giants in an environment. KS test for all galaxies in different environments indicates that colour, morphology and SF activity of galaxies are environment dependant. KS test shows that some properties of dwarfs and giants have no environment dependence. Mainly current SF activity (EW (H α)) of dwarfs in filament and field regions are found to be similar although their recent SF activity is different. KS tests also imply that dwarfs in these region have same morphology, but different colour. Similar behaviour is observed for giants in these regions.