Abstract

The environment of galaxies is crucial to their evolution. Galaxies in the nearby Universe are observed to have a lower star formation rate when compared to galaxies at redshift \$\simeq\$ 1-2. Observations have shown that galaxy properties are related to its large-scale environment. In order to understand the effects of these environments on galaxy evolution one needs to not only understand the physical processes that are at play in these environments but also how properties of galaxies evolve from one environment to another. In this thesis, we use a variety of tools: analytical models, multi-wavelength observations and hydrodynamical simulations, to probe the effects of the large scale environment on galaxy properties. We focus on two processes that affect the galaxy properties, namely, ram pressure stripping and mergers. We also study the effects of large-scale filament environment in observations as well as simulations. The following sections describe the work in more detail.