

Abstract

The Universe that we see around is full of inhomogeneities. These inhomogeneities arise in a homogeneous universe via gravitational instability. Growth and collapse of perturbations in a homogeneous universe are studied to get insights into nature of dark energy, which can significantly affect structure formation. In this project we study growth and collapse of spherical density perturbations in different dark energy models. The two models of dark energy that we consider in this work are: Cosmological Constant and Quintessence.