

# The bar population in the IllustrisTNG simulation

Supervisor: Prof. Victor Debattista

The goal of this MSc project will be to characterise the barred galaxies in the state-of-the-art cosmological simulation Illustris TNG50. This simulation forms hundreds of galaxies of varying masses with a significant fraction of the disc galaxies hosting bars. We have been looking at the bulges in these barred galaxies but there is still a lot that we can learn by studying the stellar populations, kinematics and distributions of the galaxies. The student will get a chance to work with members of the group to disentangle the evolution of the barred galaxies to learn how real bars form and to compare them with high resolution simulations of barred galaxies run in the group of Prof. Debattista. The student will be working intensively in a coding environment and the project is suitable to someone ideally with knowledge of python, or at least some coding language.

