



## Alex Massaro Achá

*Formation and Evolution of Galaxies*

**PhD Student**

01/11/20 - 31/10/24

I began my higher education at the Universidad Mayor de San Simón in Cochabamba, Bolivia, where I obtained the Electromechanical Engineering BSc. Later I obtained as well the Physics BSc at the same University. After working in the energy sector in Bolivia, I earned a scholarship from Fundación Carolina to do a MSc in Astrophysics at the University of La Laguna. There, I did my Master's Thesis in cosmological hydrodynamical simulations of the Formation and Evolution of Galaxies, under the supervision of Dr. Claudio Dalla Vecchia. My doctoral thesis, also under the supervision of Dr. Dalla Vecchia, consists in collaborating in the development and subsequent calibration of a new computer code capable of running such simulations. The purpose of this code, among other things, is to run low numerical resolution simulations which, by virtue of their reduced computational requirements, enable a larger volume of our Universe to be simulated and, consequently, are capable of forming the most massive structures observed. This is useful, for example, for numerous cosmological studies that, in one way or another, are dependent on the predictions of this type of simulations in order to be carried out.