Calle 10 # 2 - 26
Bogotá, Colombia

July 2, 2018

Organizing Commitee Uniandes Astronomy School 2018
Carrera 1 # 18A-10, Bloque Ip
Bogota, Colombia

Dear Organizing Commitee,

With this letter I would like to express my interest in taking part at the *Uniandes Astronomy School 2018*. I am on my forth and final year as a physics undergraduate student at *Universidad de los Andes*, in Bogotá, Colombia.

Ever since I was a child, I have had a profound interest for astronomy and the universe beyond Earth. Eventually, that interest drove me to study physics and now its my main motivation to apply to the Uniandes Astronomy School 2018. Furthermore, I believe that the school will provide essential knowledge and tools that will help me in my incipient career in astronomy and astrophysics.

The first astronomy-related course I took was a summer workshop in 2012 at *Grupo Halley de Astronomía y Ciencias Aeroespaciales* in *Universidad Industrial de Santander* (*UIS*). In this workshop I learned the basics on how to use different types of telescopes, a star chart, the different movements of the Earth and history of astronomy. Additionally, in 2014 I was an undergraduate physics student at *UIS*. During that time I familiarized myself with the *Latin American Giant Observatory* (*LAGO*) and the use of Cherenkov water detectors.

During the last year I took *Modern Cosmology* and *Astronomy and Astrophysics seminar*. The first one covered the basics of Riemannian geometry, the FLRW metric, along with the ΛCBD model, the CMB and Inflation. The *Astronomy and Astrophysics seminar* is a weekly colloquium in which both, experienced astronomers and astronomers in formation, give talks about their work in the field. My talk in the seminar was named *A Brief History of Dark Matter* and it was a review of how Dark Matter became the dominant hypotesis to different missing mass problems and how it's non-baryionic nature was concluded. Finally, my monograph work is a simulation of collisional Dark Matter using Lattice-Boltzmann methods, for which I became familiar with the state of the art and specially simulations of dark matter.

Thank you for your time and consideration.

Sincerely,

Javier Alejandro Acevedo Barroso