

Javier Alejandro Acevedo Barroso

Phone: (+57) 301-680-9844

Email: ja.acevedo12@uniandes.edu.co

Email: ja.acevedob12@gmail.com

Github: [ClarkGuilty](#)

Personal information

Born in Bucaramanga, Colombia, on January 4th 1997 (22 years).

Interest areas

- Reconstruction and modelling of gravitational lens.
- Search for stellar variability.
- Local extragalactic distance measurement
- Machine Learning in astronomy.
- Numerical simulations.
- Dark matter.

Education

2015-2019 UNDERGRADUATE PHYSICS STUDIES

Institution: Departamento de Física, Universidad de los Andes. *Dissertation:* Simulating a collisional dark matter fluid using a Lattice-Boltzmann method. *Advisor:* Dr. Jaime Forero.

2019-2020 MASTER IN SCIENCES-PHYSICS¹

Institution: Departamento de Física, Universidad de los Andes. *Dissertation:* Search for extragalactic variable stars using Machine Learning algorithms. *Advisor:* Dr. Alejandro García.

Participation in events

2019 MOCa 2019: Dark Matter in Colombia (Materia Oscura en Colombia).

Institution: Departamento de Física, Universidad de los Andes. *Talk:* Simulating collisional dark matter.

2019 COCOA 2019 Medellín: VI Colombian Congress of Astronomy and Astrophysics (VI Congreso Colombiano de Astronomía y Astrofísica).

Organizers: Universidad de Antioquia, Parque Explora – Planetario de Medellín, Instituto Tecnológico Metropolitano ITM y Sociedad Antioqueña de Astronomía SAA. *Talk:* Simulating Collisional Dark Matter (Simulando materia oscura colisional).

2018 Uniandes School of Astronomy 2018 (Escuela de Astronomía Uniandes 2018).

Institution: Departamento de Física, Universidad de los Andes.

2018 MOCa 2018: Dark Matter in Colombia (Materia Oscura en Colombia).

Institution: Departamento de Física, Universidad de los Andes. *Talk:* Simulating Collisional Dark Matter.

¹Tentative graduation date

Research activities

- 2019-2020 Search for extragalactic variable stars using Machine Learning algorithms (Búsqueda de estrellas variables extragalácticas usando algoritmos de Machine Learning).
Institution: Departamento de Física, Universidad de los Andes. *Advisor:* Dr. Alejandro García.
- 2019 Measurement of the rotation velocity of type B and A stars (Medición de la velocidad de rotación de estrellas tipo B y A).
Institution: Departamento de Física, Universidad de los Andes. *Advisor:* Dr. Alejandro García.
- 2018-2020 Simulating collisional dark matter using a lattice Boltzmann method.
Institución: Departamento de Física, Universidad de los Andes. *Advisor:* Dr. Jaime Forero.

Teaching experience

- 2019 Teaching assistant, Experimental physics I.
Institution: Departamento de Física, Universidad de los Andes.
- 2019 Teaching assistant, Experimental physics II.
Institution: Departamento de Física, Universidad de los Andes.

Other works

- 2019 Design of the book "Las Bolsas de Basura" by Enrique Winter.
Editorial house: Escarabajo editorial.

Awards and scholarships

- 2019 Teaching assistant with full scholarship for master studies in physics, given by Universidad de los Andes.
- 2014 Full scholarship for undergraduate studies "Bachilleres por Colombia, Programa Mario Galán Gómez", given by Ecopetrol.
- 2013 Best student from Santander department. "Prueba Saber 11 2013". given by the Colombian Ministry of Education.

Professional Abilities

- Teamwork, specially in computational tasks.
- High capacity of working under pressure.
- Languages: Spanish (native), English (C1), German (A1).
- Advanced use of Linux.
- Design of articles and books in L^AT_EX.
- Programming languages: Python (advanced), Bash (intermediate), C (intermediate), R (basic), Java (basic), C++ (basic).
- Reduction and analysis of CCD images.
- Additional software: Anaconda, IRAF, Git, Make, Pandas, Numpy, Pytorch, Sympy and Spyder.