

David Leonardo Ramos Salamanca

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🏠 <https://davidramossal.github.io/>

Education

- 2020 – present **M.S in Physics**
Universidad Industrial de Santander, Colombia
Thesis: *Study of magnetic skyrmions in square lattice antiferromagnets*
Advisor: Pierre Pujol
- 2014 – 2019 **B.S in Physics**
Universidad Industrial de Santander, Colombia
Thesis: *Physical acceptability of compact objects*
Advisor: Luis A. Núñez

Research Experience

- 02-2022 – 05-2022 **Research intern**
Université Paul Sabatier - Laboratoire de Physique Théorique, France
Duties: implemented optimizations to parallel tempering Monte Carlo code for the simulation of classical spin models with phase transitions.
Supervisor: Pierre Pujol
- 08-2021 – 10-2021 **Research intern**
Latin American Alliance for Capacity Building in Advanced Physics (Online)
Duties: implemented simulated annealing optimization for the solution of non-linear boundary value problems.
Supervisor: Pierre Pujol

Conference Participation

- 2022 **12th International Conference on Magnetic and Superconducting Materials**
University of Duisburg-Essen, Germany
Oral presentation: *Stability of antiferromagnetic skyrmions*
- 2020 **22nd Chilean Symposium of Physics**
Universidad Tecnológica Metropolitana, Chile (Online)
Poster presentation: *Physical acceptability of neutron stars with realistic equations of state*
- 2019 **6th Colombian Congress of Astronomy and Astrophysics**
Universidad de Antioquia, Colombia
Poster presentation: *Stellar structure and stability of compact objects with numerical equations of state*

Other experience

- 07-2020 – 11-2020 **Physicist**
Universidad Industrial de Santander, Colombia
Duties: built and documented experiments on the physics of climate change for the science outreach project AstroPáramo.
Supervisor: Luis A. Núñez

05-2019 – 11-2019

Physics Tutor

Universidad Industrial de Santander, Colombia

Duties: helped science and engineering students learn and understand new concepts and complete assignments.

Related Professional Skills

Programming Languages:	Python, Julia, Bash, Mathematica
High Performance Computing:	MPI
Machine Learning:	scikit-learn, Keras
Others:	Git, Docker

Awards

2020 **Outstanding bachelor's thesis distinction**
Universidad Industrial de Santander, Colombia

References

Pierre Pujol	Professor at Université Paul Sabatier	pierre.pujol@irsamc.ups-tlse.fr
Luis A. Núñez	Professor at Universidad Industrial de Santander	lnunez@uis.edu.co