

# LUCAS VARELA

PhD Candidate in Theoretical Physics & Statistical Modeling

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## PERSONAL STATEMENT

As a scientist, I am trained to solve problems with an analytical approach, focusing on finding the best tools and knowledge for each particular task. These skills have lead to manage data, to statistically interpret it and to propose successful models that predict a system’s behavior. All while exploiting machine learning capabilities that turn insights into actionable items. Also, I am well-versed in information visualization that provides an unbiased understanding of the underlying patterns in data. Finally, due to the inherent collaborative nature of science I am an excellent team player.

## EXPERIENCE

### Adjunct Professor

Universidad de los Andes

2016 – 2020    Bogotá, Colombia

Courses: Waves and Fluids, Modern Physics, Mechanics, Thermodynamics and Electromagnetism.

### Teaching Assistant

Universidad de los Andes

2013 – 2017    Bogotá, Colombia

Courses: Statistical Mechanics, Mathematical Methods, Mechanics, Thermodynamics and Electromagnetism.

## PUBLICATIONS

- L. Varela, G. Téllez, E. Trizac. [One-dimensional colloidal model with di-electric inhomogeneity](#). Phys. Rev. E 103 (042603), 2021.
- L. Varela, G. Téllez, E. Trizac. [Configurational and energy landscape in one-dimensional Coulomb systems](#). Phys. Rev. E 95 (022112), 2017.

## CONFERENCES

- Short talk: [Configurational and energy landscape in one-dimensional Coulomb systems](#). Rutgers Statistical Mechanics Conference. 2016. New Brunswick.
- Poster: [Like charge attraction in a 1D colloid](#). StatPhys 27. 2019. Buenos Aires.

## TECHNICAL SKILLS

 Python

 C/C++

 CUDA

 Mathematica

 R

 PostgreSQL

 Oracle SQL

 AWS

 Docker

 Pandas

 Scikit-Learn

 Plotly

 Linux

 Git

## EDUCATION

### PhD in Physics

Université Paris Saclay  
Universidad de los Andes

Sep 2019 – Present

### M.Sc in Physics

Universidad de los Andes

Jan 2017 – Jul 2018

### B.S. in Physics

Universidad de los Andes

Jul 2012 – Apr 2016

### Data Science for All (DS4A)

Correlation One

Jun 2020 – Aug 2020

## INTERESTS

Data Science

Statistics

Time Series

Machine Learning

Numerical Analysis

InfoVis


Mathematical Modeling


Probability


Stochastic Processes

Computational Physics

## ACHIEVEMENTS

 **#1 GPA**  
Top GPA of the physics undergraduate class of 2016-10

 **Time efficient bachelor’s degree**  
Finished my bachelor’s degree 1 semester before the standard time.

 **Graduated with honors**  
Top projects in the Colombian data science program DS4A 2020.

## LANGUAGES

- Spanish - Native
- English - Advanced (C1)
- French - Basic (A1)