Julián Jiménez-Cárdenas

jo.jimenezc1@uniandes.com   Curriculum Vitæ   github.com/julianjica

I am a mathematician and physicist interested in dynamical systems theory, applied mathematics, machine learning, (Riemannian and differential) geometry and economy. In my current work, I employ geometric tools to analyze the behavior of firms competing in the market.

EDUCATION

Universidad de los Andes   **Bogotá, Colombia**
M. Sc. in Mathematics   *2022*
Thesis title: Elements of sub-Riemannian geometry and its applications

Fundación Universitaria Konrad Lorenz   **Bogotá, Colombia**
B. S. in Mathematics   *2020*

Universidad Nacional de Colombia   **Bogotá, Colombia**
B. S. in Physics   *2020*

PUBLICATION LIST

1. *About the restricted three-body problem with the Schwarschild de Sitter potential*   2021
   John A. Arredondo, **Julian Jimenez-Cardenas**
   Nonlinear Dynamics and Systems Theory, Volume 21, Number 2.

EMPLOYEMENT

Harvard University   **Nov 2021 — Present**
Research Assistant, Business School   *Boston, MA*
• Supervisor: Prof. J. Tamayo.

Fundación Universitaria Konrad Lorenz   **2023 — Present**
Assistant Teacher, Facultad de Matemáticas   *Bogotá, Colombia*
• Courses: Parallel Computing, Mathematical Logic & Linear Algebra.

Universidad de los Andes   **2020 — 2022**
Assistant Teacher, Facultad de Ciencias   *Bogotá, Colombia*
• Courses: Integral Calculus, Differential Equations & Basic Mathematics.

SKILLS

Programming Languages	Python, C/C++, Bash & Java
Technical Computing	Mathematica & Matlab
Communication	Spanish & English (IELTS Academic: 7.0)
Other	Git, LaTeX & HTML

HONORS, SCHOLARSHIPS AND AWARDS

Graduate Fellowship, (Beca de Asistencia Graduada) Universidad de los Andes.   2020 — 2022
Award for best undergraduate students, ECAES Standarized Test
   Ministerio de Educación Nacional (Colombia). Top 1% of undergraduate students of Colombia.   2018, 2020
Distinguished Young Investigator Science Award, Fundación Universitaria Konrad Lorenz.   2018
Outstanding Student Scholarship, Universidad Nacional de Colombia. Top 1% of my class.   2015

ACADEMIC EVENTS

10. *14th International Olympiad on Astronomy and Astrophysics*   2021
    Universidad Antonio Nariño, Bogotá, Colombia.
    Role: Jury.

9. *XX School in Mathematics*   2021
   Universidad Nacional Autónoma de México, Morelia, México.
   Courses taken: metric spaces and groups, hyperbolic geometry, metric spaces of negative curvature.

8. *Mathematics by Students*   2018
   Universidad de los Andes, Bogotá, Colombia.
   Talk presented: Restricted Three Body Problem under the Schwarzschild de Sitter Potential.

7. *III Winter School in Mathematics*   2017
   Universidad Nacional Autónoma de México, Oaxaca, México.

6. *III International Conference on Applied Mathematics and Informatics*   2017
   Universidad del Valle, Isla de San Andrés, Colombia.
   Talk presented: Simulations on N-bodies with Relativistic Corrections.

5. *XVII Summer School in Mathematics*   2017
   Universidad Nacional Autónoma de México, Morelia, Mexico.

4. *XIX National and XIII International Meeting of Investigation Groups*   2016
   Universidad Simón Bolívar, Cúcuta, Colombia.
   Talk presented: Simulations of the N-Body Problem.

3. *Mathematics by Students*   2015
   Universidad de los Andes, Bogotá, Colombia.
   Poster presented: Kepler's Problem and Two Body Problem.

2. *II Worshop on Astronomy.*   2015
   Universidad de los Andes, Bogotá, Colombia.
   Poster presented: Astronomy available for everyone.

1. *8th International Olympiad on Astronomy and Astrophysics.*   2014
   Universitatea Stefan Cel Mare, Suceava, Romania.

SERVICE

- Editor of Paskín Matemático.   2020 – Present
  Fundación Universitaria Konrad Lorenz.

- Professor of the one week course "Python Programming Oriented to Scientific Computing".   2018
  Fundación Universitaria Konrad Lorenz.

- Professor of the one week course "Introduction to Category Theory".   2018
  Fundación Universitaria Konrad Lorenz.

ONLINE COURSES

- Introduction to Enumerative Combinatorics.   2020
  National Research University Higher School of Economics.

- Game Theory.   2020
  Stanford University, University of British Columbia.

- Bayesian Statistics: Techniques and Models.   2020
  University of California, Santa Cruz.

- Econometrics: Methods and Applications.   2020
  Erasmus University Rotterdam.

- Machine Learning.   2019
  Stanford University.