

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 <i>M. Sc. in Mathematics</i> Thesis title: Elements of sub-Riemannian geometry and its applications	Bogotá, Colombia 2022
Fundación Universitaria Konrad Lorenz <i>B. S. in Mathematics</i>	Bogotá, Colombia 2020
Universidad Nacional de Colombia <i>B. S. in Physics</i>	Bogotá, Colombia 2020

PUBLICATION LIST

2. *Dynamic competition for customer memberships* 2024
Cristian Chica, **Julian Jimenez-Cardenas**, Jorge Tamayo
[Journal of Economics & Management Strategy](#)
1. *About the restricted three-body problem with the Schwarzschild de Sitter potential* 2021
John A. Arredondo, **Julian Jimenez-Cardenas**
[Nonlinear Dynamics and Systems Theory](#), Volume 21, Number 2.

EMPLOYEMENT

Harvard University <i>Research Assistant, Business School</i> <ul style="list-style-type: none">Supervisor: Prof. J. Tamayo.	Nov 2021 — Present <i>Boston, MA</i>
Fundación Universitaria Konrad Lorenz <i>Assistant Teacher, Facultad de Matemáticas</i> <ul style="list-style-type: none">Courses: Parallel Computing, Mathematical Logic & Linear Algebra.	2023 — Present <i>Bogotá, Colombia</i>
Universidad de los Andes <i>Assistant Teacher, Facultad de Ciencias</i> <ul style="list-style-type: none">Courses: Integral Calculus, Differential Equations & Basic Mathematics.	2020 — 2022 <i>Bogotá, Colombia</i>

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 Standardized 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.

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| 8. <i>Mathematics by Students</i> | 2018 |
| Universidad de los Andes, Bogotá, Colombia. | |
| Talk presented: Restricted Three Body Problem under the Schwarzschild de Sitter Potential. | |
| 7. <i>III Winter School in Mathematics</i> | 2017 |
| Universidad Nacional Autónoma de México, Oaxaca, México. | |

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| 6. <i>III International Conference on Applied Mathematics and Informatics</i>
Universidad del Valle, Isla de San Andrés, Colombia.
Talk presented: Simulations on N-bodies with Relativistic Corrections. | 2017 |
| 5. <i>XVII Summer School in Mathematics</i>
Universidad Nacional Autónoma de México, Morelia, Mexico. | 2017 |
| 4. <i>XIX National and XIII International Meeting of Investigation Groups</i>
Universidad Simón Bolívar, Cúcuta, Colombia.
Talk presented: Simulations of the N-Body Problem. | 2016 |
| 3. <i>Mathematics by Students</i>
Universidad de los Andes, Bogotá, Colombia.
Poster presented: Kepler's Problem and Two Body Problem. | 2015 |
| 2. <i>II Workshop on Astronomy.</i>
Universidad de los Andes, Bogotá, Colombia.
Poster presented: Astronomy available for everyone. | 2015 |
| 1. <i>8th International Olympiad on Astronomy and Astrophysics.</i>
Universitatea Stefan Cel Mare, Suceava, Romania. | 2014 |

SERVICE

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| • Editor of Paskín Matemático .
Fundación Universitaria Konrad Lorenz. | 2020 – Present |
| • Professor of the one week course "Python Programming Oriented to Scientific Computing".
Fundación Universitaria Konrad Lorenz. | 2018 |
| • Professor of the one week course "Introduction to Category Theory".
Fundación Universitaria Konrad Lorenz. | 2018 |

ONLINE COURSES

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| • Introduction to Enumerative Combinatorics.
National Research University Higher School of Economics. | 2020 |
| • Game Theory.
Stanford University, University of British Columbia. | 2020 |
| • Bayesian Statistics: Techniques and Models.
University of California, Santa Cruz. | 2020 |
| • Econometrics: Methods and Applications.
Erasmus University Rotterdam. | 2020 |
| • Machine Learning.
Stanford University. | 2019 |