

# Jordan Zambrano

Physics Graduate

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## Employment

Jun. 2022 - Sep. 2022	<b>Research Assistant</b> , Yachay Tech University. Developing opinion formation models and computational implementation in Complex Systems and Sociophysics. Supervised by Mario Cosenza PhD.
Nov. 2020 - Nov. 2021	<b>Scientific Writer</b> , Discience Ecuador, Writting blogs for company's webpage. Quito-Ecuador.

## Education

2018 - 2023	<b>BSc. Physics</b> , Yachay Tech University. Project thesis: "Numerical Study of Hilltop Inflationary (HI) model". Supervised by Dr. Clara Rojas, <i>Cum Laude</i> Mention, 3.7 GPA.
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## Research Experience

Jun, 2022 - Present	<b>Inflationary Cosmology Project</b> , Yachay Tech University, Under supervision of Prof. Clara Rojas. Tools: Python, Mathematica, Cobaya
Apr, 2023 - Sep. 2023	<b>Theoretical Spectroscopy Analysis of Graphene with Boron and Nitrogen Defects</b> , Yachay Tech University, Under supervision of Prof. Duncan Mowbray. Tools: ASE, HPC, GPAW
Sep. 2022 - Dec. 2023	<b>Project CEDIA: Applications on Sociophysics.</b> , Yachay Tech University, Under supervision of Prof. Mario Cosenza. Tools: Python, Mathematica, Parallel Programming, HPC

## Publications

September 2024	Pozo, D., <b>Zambrano, J.</b> , Villegas, I., Hernández-Jiménez, R., Rojas, C. <a href="#">Some inflationary models under the light of Planck 2018 results</a> , Astroparticle Physics, 102977
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## Complementary Education

December 2024	<b>Fundamentals of Accelerated Computing with CUDA C/C++</b> , NVIDIA, Remote.
November 2024	<b>Advanced Lectures of Theoretical Physics and Mathematics: General Relativity and Cosmology</b> , Physics Latam - ICTP, Remote.
May 2024	<b>Nonlinear Dynamics: Mathematical and Computational Approaches</b> , Complexity Explorer, Santa Fe Institute, Remote, <a href="#">Url</a>
August 2022	<b>Advance Data Science</b> , LA-CoNGA Physics, Remote.
August 2022	<b>Introduction to Data Science</b> , LA-CoNGA Physics, Remote.

## Conferences and Workshops

July 2024	<b>EPIC 4: Harnessing Data for Scientific Discovery</b> , International Center of Theoretical Physics ICTP-PWF, Quito, Ecuador.
October 2023	<b>Minicurse on Statistical Physics of Complex Systems</b> , Yachay Tech University, Urcuqui, Ecuador.
August 2023	<b>Complex Systems Summer School COSSY-YT</b> , Interdisciplinary Group of Complex Systems, Urcuqui, Ecuador.
January 2023	<b>Theoretical Physics, Astrophysics and Cosmology Symposium</b> , Yachay Tech University, Urcuqui, Ecuador.
August 2021	<b>Hamilton-Jacobi Equation Workshop</b> , Semana de la Astrofisica, Yachay Tech University, Urcuqui, Ecuador.

## Talks

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### Posters and Workshop talks

July 2024	<i>Some inflationary models under the light of Planck 2018 results.</i> , Physics Without Frontiers ICTP-EPIC 4, UIDE.
August 2023	<i>Rise of an alternative majority against mass media in an opinion formation model</i> , NANOPHYS Day vol.2: From Nano to Astrophysics, Yachay Tech University.
July 2023	<i>Numerical Study of Hilltop Inflationary Model (HI) (In spanish)</i> AMV Phys at Yachay Tech, Yachay Tech University.

## Grants and awards

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July 2024	<b>First Place</b> Dorothy Coding Challenge, Epic 4, UIDE.
October 2023	<b>Second Place</b> ,Hackathon Co-Afina 2023 by LA-CoNGA physics.
February 2023	<b>Academic Excellence Scholarship</b> , awarded to students with an excellent academic performace, Yachay Tech University.

## Conference organization

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October 2023	Minicurse on Statistical Physics of Complex Systems, Yachay Tech University.
August 2023	Complex Systems Summer School COSSY-YT, Yachay Tech University.
January 2023	Theoretical Physics, Astrophysics and Cosmology Symposium, Yachay Tech University.
August 2021	Semana de la Astrofisica (Week of Astrophysics), Yachay Tech University.

## Teaching responsibilities

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June. 2023 - August. 2023	<b>Physics for High School</b> , for students in last year of high school, Unidad Educativa del Milenio "Yachay"
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## Extracurricular activities

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Nov. 2022 - Nov. 2023	<b>Member of Directive Board</b> Club of Theoretical Physics and Astrophysics, Yachay Tech University.
Sep. 2020 - Jan. 2021	<b>Member of Organizing Committee</b> Hult Prize at Yachay Tech.

## Skills

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Programming	<b>Experienced:</b> Python, MATLAB, Mathematica, Bash <b>Proficient:</b> C
Tools	<b>Proficient:</b> Machine Learning, Git, mpi4py, PySpark, Parallel programming, Linux, HPC, Cobaya
Markup	<b>Experienced:</b> LaTeX
Languages	<b>Proficient:</b> English, Spanish