

SEBASTIAN NUMPAQUE

Undergraduate student in Astronomy at the University of Antioquia. Young Researcher Intern in the FAcOm and SEAP research groups, focusing on exoplanetary science. Coordinator and Co-founder of the Astrophysics Research Training Program. Organizational Manager at Astrodidaxis Foundation for Astronomy Education. I have made contributions in the design and development of scientific and computational tools, as well as in the publication of scientific papers and organization of science outreach activities

CONTACT

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FORMATION

2021 - Present

Astronomy Undergraduate Program
University of Antioquia
Medellín, Colombia

LANGUAGES

- Spanish (Native)
- English - B2 Level

SKILLS

- Software Development (Python)
- Object-Oriented Programming (Python)
- Collaborative Development (Git, GitHub)
- API Documentation (ReadTheDocs, Sphinx)
- Linux Systems Management
- Statistics and Data Science
- Physical-Mathematical Modeling and Simulation
- Scientific Research and Outreach
- Formulation and Execution of Projects

ASTRONOMY BACKGROUND

FAcOm & SEAP Groups Young Researcher Intern | 2024 - 2025

Co-Developer of Pryngles Package: <https://github.com/seap-udea/pryngles>

- Development of scientific packages based on Python
- Open-source version control management on GitHub
- Software Testing and Documentation
- Implementation of packages for exoplanetary research

University of Geneva | 2024

- Complementary Course on Exoplanets

Coursera | 2021

- Complementary Course on Data Mining
- Introductory Course to AI

Speaker

- A Python Package for Modelling the Photometric Signatures of Exoplanetary Rings/Satellites
VIII Congreso Colombiano de Astronomía y Astrofísica (CoCoA) | 2024

Assistant

- VII Congreso Colombiano de Astronomía y Astrofísica (CoCoA) | 2022
- II Congreso Iberoamericano de Estudiantes de Física (CIEF) | 2023

OUTREACH ACTIVITIES

Astrodidaxis Network Foundation | 2023 - Present

- Research project management
- Planning and execution of academic and outreach events
- Coordination of initiatives to strengthen the foundation's visibility and impact.

Organizer Committee's Member

- II & III Workshop on Astronomy Education
OAE - Colombia, Astrodidaxis, UPTC | 2023, 2025

Speaker

- Explorando la Contribución de la Astronomía a los Objetivos de Desarrollo Sostenible y el Empoderamiento Comunitario en Boyacá
III Congreso Internacional de Educación Ambiental Comunitaria | 2024

Offered Workshops and Courses

- Explorando Mundos Distantes: Detección de Exoplanetas y la Zona Habitable
 - Astrodidaxis Network Foundation | 2024
 - 27° Astronomy Fest, Villa de Leyva, Colombia | 2024
 - Luis Carlos Galán Sarmiento School, Villavicencio, Colombia | 2024
- Astrodidaxis Young Course on Astrophysics | 2025

Publications

- Artificial Intelligence in the Teaching of Natural Sciences on the Threshold of the Fifth Industrial Revolution. doi.org/10.1007/978-3-031-72410-7_9
- Aportes de la Astronomía y su enseñanza a los Objetivos de Desarrollo Sostenible, caso Astrodidaxis (Paper Submitted).
Góndola, Enseñanza y Aprendizaje de las Ciencias ISSN: 2665-3303 | 2025
- Explorando Mundos Distantes: Taller en Detección de Exoplanetas
Circular Astronómica No. 999, Red de Astronomía de Colombia (RAC) | 2024
rac.net.co/wp-content/uploads/2024/05/Circular-mayo-2024.pdf