

Anibal Estuardo Sierra Morales

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Instituto de Astronomía - Universidad Autónoma de México - Ciudad de México

PROFESSIONAL EXPERIENCE

- Associate Professor** Since November 2025
Instituto de Astronomía Ciudad de México
- Postdoctoral researcher in Astrophysics** June 2024 - October 2025
Mullard Space Science Laboratory, University College London London, England
Working in the Planet Formation group of Dr. Paola Pinilla
- Postdoctoral researcher in Astrophysics** April 2024 - May 2024
Pontificia Universidad Católica de Chile Santiago de Chile, Chile
Working in the group of Dr. Viviana Guzmán
- Postdoctoral Fondecyt Fellow** April 2022 - March 2024
Agencia Nacional de Investigación y Desarrollo (ANID) Santiago de Chile, Chile
Working in the group of Dr. Laura Pérez
- Postdoctoral researcher in Astrophysics** March 2020 - February 2022
Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile Santiago de Chile, Chile
Working in the group of Dr. Laura Pérez

EDUCATION

- Ph.D. in Astrophysics** January 2016 - December 2019
Instituto de Radioastronomía y Astrofísica - Universidad Autónoma de México Morelia, México
Thesis: Dust dynamics and emission in protoplanetary disks. Advisor: Dr. Susana Lizano
- M.Sc. in Astrophysics** January 2014 - December 2015
Instituto de Radioastronomía y Astrofísica - Universidad Autónoma de México Morelia, México
Thesis: Dust dynamics in protoplanetary disks. Advisor: Dr. Susana Lizano
- B.Sc. in Physics** January 2008 - December 2013
Facultad de Ciencias Físicas y Matemáticas - Universidad de San Carlos de Guatemala Guatemala, Guatemala
Thesis: Group representation in physics. Advisor: Ing. Rodolfo Samayoa

SELECTED HONORS AND AWARDS

- Robert Boyd award** 2025
Space and Climate Physics, University College London United Kingdom
Outstanding Scientific Achievement
- Ph.D. thesis award** 2021
División de Astrofísica de la Sociedad Mexicana de Física México
Best Ph.D. thesis done in Mexico or by mexicans abroad (period 2020-21)
- Alfonso Caso Medal** 2020
Universidad Autónoma de México México
Best student of the generation, Ph.D. in Astrophysics
- Alfonso Caso Medal** 2015
Universidad Autónoma de México México
Best student of the generation, M.Sc. in Astrophysics
- Cum Laude degree** 2013
Universidad de San Carlos de Guatemala Guatemala
B.Sc. in Physics
- University student excellence award** 2013
Universidad de San Carlos de Guatemala Guatemala
Best student of the generation, Faculty of Engineering, Physics & Mathematics
- Faculty student excellence award** 2009-2012
Universidad de San Carlos de Guatemala Guatemala
Best physics student of the year for 4 years

SUPERVISED THESIS

- **co-Advisor M.Sc. Thesis in Astrophysics.** 2022-2023
Student: Luz Maritza Caballero Cano. Instituto de Radioastronomía y Astrofísica Morelia, México
Thesis: "Propiedades del polvo en el disco protoplanetario alrededor del sistema HD 142527"
- **Advisor M.Sc. Thesis in Physics.** 2022-to date
Student: Erick Alexander Rojas García. Universidad de San Carlos de Guatemala Guatemala, Guatemala
Thesis: "Impact of dust porosity on the radiative transfer properties in protoplanetary disks"

STUDENT SUPERVISION

- **Supervision of a B.Sc. project** 2025
Universidad Autónoma de Sinaloa. México. Student: Litzy Guzmán
- **co-Supervision of a M.Sc. project** 2022-2023
Universidad Autónoma de México. México. Research to be included in a paper in preparation Student: Luz Caballero
- **Supervision of a M.Sc. project** 2022-to date
Universidad de San Carlos de Guatemala. Guatemala Student: Erick Rojas
- **Supervision of a B.Sc. project** 2023-2024
Universidad de Chile. Chile. Research to be included in a paper in preparation Student: Benjamín Carrera
- **Supervision of a B.Sc. project** 2022-2023
Universidad de Chile. Chile. Research included in a paper published in The Astrophysical Journal (ApJ) Student: Benjamín Sotomayor
- **Supervision of summer research project** 2021-2024
Universidad de Chile. Chile 7 B.Sc. students

TEACHING EXPERIENCE

- **Lecturer** 2020
Faculty of Physics and Mathematics, Universidad de Chile Santiago de Chile, Chile
General astronomy. Undergrad-level course for engineers and scientist students
- **Teaching assistant** 2019
Escuela Nacional de Estudios Superiores, Universidad Autónoma de México Morelia, México
Distributed computing. Undergrad-level course for science and technology students
- **Teaching assistant** 2018
Escuela Nacional de Estudios Superiores, Universidad Autónoma de México Morelia, México
Image analysis using Python. Undergrad-level course for science and technology students
- **Teaching assistant** 2013
Faculty of Engineering, Universidad Francisco Marroquín Guatemala, Guatemala
Calculus, linear algebra. Undergrad-level course for engineers students
- **Physics laboratory teacher** 2013
Physics Department, Universidad de San Carlos de Guatemala Guatemala, Guatemala
Classical Mechanics, Electromagnetism, and Optics. Undergrad-level laboratory for physics students

GRANTS AND SCHOLARSHIPS

- **FONDECYT fellow** 2022-2024
Agencia Nacional de Investigación y Desarrollo (ANID) Chile
[I applied for and received government funding to cover my postdoctoral expenses, including salary, computational resources, conference fees, and stipends.](#)
- **CONACYT** 2016-2019
Consejo Nacional de Ciencia y Tecnología México
Scholarship for Ph.D. studies
- **CONACYT - OEA - AMEXCID** 2016
Organización de los Estados Americanos - Agencia Mexicana de Cooperación Internacional para el Desarrollo México
Ph.D. travel and accommodation
- **CONACYT - OEI** 2016
Organización de los Estados Iberoamericanos México
Ph.D. travel and accommodation

<ul style="list-style-type: none"> • CONACYT Consejo Nacional de Ciencia y Tecnología Scholarship for M.Sc. studies 	2014-2015 México
<ul style="list-style-type: none"> • CONACYT - OEA - AMEXCID Organización de los Estados Americanos - Agencia Mexicana de Cooperación Internacional para el Desarrollo M.Sc. travel and accommodation 	2014 México
<ul style="list-style-type: none"> • USAC Grant Universidad de San Carlos de Guatemala Grant for B.Sc. studies 	2008-2013 Guatemala

PROFESSIONAL SERVICE

<ul style="list-style-type: none"> • per-Reviewer Scientific articles in <i>ApJ</i>, <i>ApJL</i>, and <i>A&A</i>. ~ 2 papers per year 	Since 2021
<ul style="list-style-type: none"> • Secretary Central America and Caribbean association for Astronomy Sciences (Alpha-Cen) 	2020-2021
<ul style="list-style-type: none"> • Evaluation commission Guatemalan Basic Sciences Olympiad 	2012-2013
<ul style="list-style-type: none"> • ad-Honorem teacher assistant Faculty of Engineering, Universidad de San Carlos de Guatemala 	2011

OBSERVATIONAL EXPERIENCE

- **Awarded observation time:** ALMA and VLA (as PI and Co-I), APEX, and JWST (as Co-I)
Full list of observational time at anibalsierram.github.io/Research.html

PRESENTATIONS AND SCIENTIFIC TALKS

- **Colloquium and Seminar speaker** at over 12 different universities and observatories.
- **Contributed speaker** to over 6 national and international conferences
Full list of Seminar and contributed speaker at anibalsierram.github.io/Talks.html

PUBLIC OUTREACH

- **Speaker at multiple events for general public.** Guatemala, Mexico, and Chile. ~ 30 events.
- **Scientific press releases for ALMA Large program papers.** alma-maps.info/press.html, and AGE-PRO website in progress.

REFERENCES

1. **Susana Lizano**
Professor, Instituto de Radioastronomía y Astrofísica
Universidad Autónoma de México
Email: s.lizano@irya.unam.mx
M.Sc. and Ph.D. advisor
2. **Laura Pérez**
Professor, Departamento de Astronomía
Universidad de Chile
Email: lperez@das.uchile.cl
Postdoctoral supervisor
3. **Paola Pinilla**
Professor, Mullard Space Science Laboratory
University College London
Email: p.pinilla@ucl.ac.uk
Postdoctoral supervisor
4. **Myriam Benisty**
Director, Max Planck Institute for Astronomy
Email: benisty@mpia.de
Active Scientific collaborator