

# Anibal Estuardo Sierra Morales

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

## PROFESSIONAL EXPERIENCE

### • Associate Professor

*Instituto de Astronomía, Universidad Nacional Autónoma de México*

*Since November 2025*

*Ciudad de México*

### • Postdoctoral researcher in Astrophysics

*Mullard Space Science Laboratory, University College London*

Working in the Planet Formation group of Dr. Paola Pinilla

*June 2024 - October 2025*

*London, England*

### • Postdoctoral researcher in Astrophysics

*Pontificia Universidad Católica de Chile*

Working in the group of Dr. Viviana Guzmán

*April 2024 - May 2024*

*Santiago de Chile, Chile*

### • Postdoctoral Fondecyt Fellow

*Agencia Nacional de Investigación y Desarrollo (ANID)*

Working in the group of Dr. Laura Pérez

*April 2022 - March 2024*

*Santiago de Chile, Chile*

### • Postdoctoral researcher in Astrophysics

*Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile*

Working in the group of Dr. Laura Pérez

*March 2020 - February 2022*

*Santiago de Chile, Chile*

## EDUCATION

### • Ph.D. in Astrophysics

*January 2016 - December 2019*

*Morelia, México*

*Instituto de Radioastronomía y Astrofísica - Universidad Autónoma de México*

Thethesis: Dust dynamics and emission in protoplanetary disks. Advisor: Dr. Susana Lizano

*January 2014 - December 2015*

*Morelia, México*

### • M.Sc. in Astrophysics

*Instituto de Radioastronomía y Astrofísica - Universidad Autónoma de México*

Thethesis: Dust dynamics in protoplanetary disks. Advisor: Dr. Susana Lizano

*January 2008 - December 2013*

*Guatemala, Guatemala*

### • B.Sc. in Physics

*Facultad de Ciencias Físicas y Matemáticas - Universidad de San Carlos de Guatemala*

Thethesis: Group representation in physics. Advisor: Ing. Rodolfo Samayoa

## SELECTED HONORS AND AWARDS

### • Robert Boyd award

*Space and Climate Physics, University College London*

Outstanding Scientific Achievement

*2025*

*United Kingdom*

### • Ph.D. thesis award

*División de Astrofísica de la Sociedad Mexicana de Física*

Best Ph.D. thesis done in Mexico or by mexicans abroad (period 2020-21)

*2021*

*México*

### • Alfonso Caso Medal

*Universidad Autónoma de México*

Best student of the generation, Ph.D. in Astrophysics

*2020*

*México*

### • Alfonso Caso Medal

*Universidad Autónoma de México*

Best student of the generation, M.Sc. in Astrophysics

*2015*

*México*

### • Cum Laude degree

*Universidad de San Carlos de Guatemala*

B.Sc. in Physics

*2013*

*Guatemala*

### • University student excellence award

*Universidad de San Carlos de Guatemala*

Best student of the generation, Faculty of Engineering, Physics & Mathematics

*2013*

*Guatemala*

### • Faculty student excellence award

*Universidad de San Carlos de Guatemala*

Best physics student of the year for 4 years

*2009-2012*

*Guatemala*

## **SUPERVISED THESIS**

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- **co-Advisor M.Sc. Thesis in Astrophysics.** 2022-2023  
*Student: Luz Maritza Caballero Cano. Instituto de Radioastronomía y Astrofísica*  
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*  
Thesis: "Impact of dust porosity on the radiative transfer properties in protoplanetary disks"

## **STUDENT SUPERVISION**

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- **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**

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

## **GRANTS AND SCHOLARSHIPS**

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- **FONDECYT fellow** 2022-2024  
*Agencia Nacional de Investigación y Desarrollo (ANID)*  
Chile
- **CONACYT** 2016-2019  
*Consejo Nacional de Ciencia y Tecnología*  
Scholarship for Ph.D. studies  
México
- **CONACYT - OEA - AMEXCID** 2016  
*Organización de los Estados Americanos - Agencia Mexicana de Cooperación Internacional para el Desarrollo*  
Ph.D. travel and accommodation  
México
- **CONACYT - OEI** 2016  
*Organización de los Estados Iberoamericanos*  
Ph.D. travel and accommodation  
México
- **CONACYT** 2014-2015  
*Consejo Nacional de Ciencia y Tecnología*  
Scholarship for M.Sc. studies  
México

- **CONACYT - OEA - AMEXCID** 2014  
*Organización de los Estados Americanos - Agencia Mexicana de Cooperación Internacional para el Desarrollo*  
M.Sc. travel and accommodation
- **USAC Grant** 2008-2013  
*Universidad de San Carlos de Guatemala*  
Grant for B.Sc. studies

## PROFESSIONAL SERVICE

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- **per-Reviewer** Since 2021  
*Scientific articles in ApJ, ApJL, and A&A. ~ 2 papers per year*
- **Secretary** 2020-2021  
*Central America and Caribbean association for Astronomy Sciences (Alpha-Cen)*
- **Evaluation commission** 2012-2013  
*Guatemalan Basic Sciences Olympiad*
- **ad-Honorem teacher assistant** 2011  
*Faculty of Engineering, Universidad de San Carlos de Guatemala*

## OBSERVATIONAL EXPERIENCE

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- **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](https://anibalsierram.github.io/Research.html)

## PRESENTATIONS AND SCIENTIFIC TALKS

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- **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](https://anibalsierram.github.io/Talks.html)

## PUBLIC OUTREACH

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- **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](https://alma-maps.info/press.html), and AGE-PRO website in progress.

## REFERENCES

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1. **Susana Lizano**  
Professor, Instituto de Radioastronomía y Astrofísica  
Universidad Autónoma de México  
Email: [s.lizano@irya.unam.mx](mailto: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](mailto:lperez@das.uchile.cl)  
Postdoctoral supervisor
3. **Paola Pinilla**  
Professor, Mullard Space Science Laboratory  
University College London  
Email: [p.pinilla@ucl.ac.uk](mailto:p.pinilla@ucl.ac.uk)  
Postdoctoral supervisor
4. **Myriam Benisty**  
Director, Max Planck Institute for Astronomy  
Email: [benisty@mpia.de](mailto:benisty@mpia.de)  
Active Scientific collaborator