

Anibal Estuardo Sierra Morales

a.sierra@ucl.ac.uk | anibalsierram.github.io

Mullard Space Science Laboratory - University College London, England, United Kingdom

PROFESSIONAL EXPERIENCE

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

EDUCATION

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

SELECTED HONORS AND AWARDS

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

SUPERVISED THESIS

- **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" Morelia, México
- **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" Guatemala, Guatemala

STUDENT SUPERVISION

- **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
Funding covered postdoctoral salary, computational and expenses, 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
- **CONACYT** 2014-2015
Consejo Nacional de Ciencia y Tecnología México
Scholarship for M.Sc. studies
- **CONACYT - OEA - AMEXCID** 2014
Organización de los Estados Americanos - Agencia Mexicana de Cooperación Internacional para el Desarrollo México
M.Sc. travel and accommodation
- **USAC Grant** 2008-2013
Universidad de San Carlos de Guatemala Guatemala
Grant for B.Sc. studies

PROFESSIONAL SERVICE

- **per-Reviewer** Since 2021
Scientific articles in ApJ and ApJL. ~ 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

- **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, 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
5. **Carlos Carrasco**
Professor, Instituto de Radioastronomía y Astrofísica
Universidad Autónoma de México
Email: c.carrasco@irya.unam.mx
Active Scientific collaborator