

Anibal Sierra

Curriculum Vitae

Postdoctoral Researcher
Mullard Space Science Laboratory
University College London
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📄 [anibalsierram.github.io](https://github.com/anibalsierram)



Personal Information

Name: Anibal Estuardo Sierra Morales
Birth: September 16th, 1989; Guatemala City, Guatemala

Education

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

Professional experience

- 2024–to date **Postdoctoral researcher in Astrophysics**, Mullard Space Science Laboratory, University College London (UCL), UK.
Working in the group of Prof. Paola Pinilla.
- 2022–2024 **Postdoctoral Fondecyt Fellow**, Agencia Nacional de Investigación y Desarrollo (ANID), Santiago de Chile, Chile.
Working in the group of Prof. Laura Pérez.
- 2020–2022 **Postdoctoral researcher in Astrophysics**, Facultad de Ciencias Físicas y Matemáticas, Departamento de Astronomía, Universidad de Chile, Santiago, Chile.
Working in the group of Prof. Laura Pérez.

Honors and Awards

- 2024 **Alfonso Caso Medal** – Best student of the generation, Ph.D. in Astrophysics – Universidad Nacional Autónoma de México.
- 2021 **Ph.D. thesis award** – Best Ph.D. thesis done in Mexico or by mexicans abroad (period 2020-21) – División de Astrofísica de la Sociedad Mexicana de Física.
- 2020 **Honorific mention** – Ph.D. in Astrophysics – IRyA UNAM
- 2019 **Alfonso Caso Medal** – Best student of the generation, M.Sc. in Astrophysics – Universidad Nacional Autónoma de México
- 2015 **Honorific mention** – M.Sc. in Astrophysics – IRyA UNAM
- 2013 **Cum Laude** – B.Sc. in Physics – Universidad de San Carlos de Guatemala

- 2012 **University student excellence award** – Best student of the generation – Universidad de San Carlos de Guatemala
- 2009–2012 **Faculty student excellence award** – Best physics student of the year for 4 years – Universidad de San Carlos de Guatemala
- 2010 **IV Guatemalan Basic Sciences Olympiad** – First place – Physics
- 2009 **III Guatemalan Basic Sciences Olympiad** – Fourth place – Mathematics

Supervised Thesis

- 2022-2023 **co-Advisor** M.Sc. in Astrophysics. Student: Luz Maritza Caballero Cano. Thesis: "Propiedades del polvo en el disco protoplanetario alrededor del sistema HD 142527", IRyA UNAM
- 2022-to date **Advisor** M.Sc. in Physics. Student: Erick Alexander Rojas Garcia. Thesis: "Dust porosity impact on the radiative transfer properties in protoplanetary disks", Universidad de San Carlos de Guatemala

Teaching Experience

- 2020 **Lecturer**, Universidad de Chile, Faculty of Physics and Mathematics, Santiago de Chile, Chile.
General astronomy. Undergrad-level course for engineers and scientist students.
- 2019 **Teaching assistant**, Escuela Nacional de Estudios Superiores, Universidad Autónoma de México, Morelia, Michoacán.
Distributed computing. Undergrad-level course for science and technology students.
- 2018 **Teaching assistant**, Escuela Nacional de Estudios Superiores, Universidad Autónoma de México, Morelia, Michoacán.
Image analysis using Python. Undergrad-level course for science and technology students.
- 2013 **Teaching assistant**, Universidad Francisco Marroquín, Guatemala.
Calculus, linear algebra. Undergrad-level course for engineers students.
- 2011–2013 **Physics laboratory teacher**, Universidad de San Carlos de Guatemala, Guatemala.
Classical Mechanics, Electromagnetism, Optics, and Quantum Mechanics. Undergrad-level laboratory for engineering and physics students.

Grants

- 2022-2024 **FONDECYT fellow**: Postdoctoral salary and stipends.
- 2016-2019 **CONACYT**: Scholarship for Ph.D.'s studies.
- 2016 **CONACYT - OEA - AMEXCID**: Grant from the Organization of the American States (Ph.D. travel and accommodation).
- 2016 **CONACYT - OEI**: Grant from the Organization of Ibero-American States (Ph.D. travel and accommodation).
- 2014-2015 **CONACYT**: Scholarship for M.Sc. studies.
- 2014 **CONACYT - OEA - AMEXCID**: Grant from the Organization of the American States (M.Sc. travel and accommodation).
- 2008-2013 **USAC**: Grant for B.Sc. studies.

Professional Service

- Since 2021 **Referee** for scientific articles in ApJ and ApJL.
- 2020-2021 **Secretary** at ASTROFÍSICA CENTROAMERICANA Y DEL CARIBE (Alpha-Cen), a Central America and Caribbean association for Astronomy Sciences.
- 2012-2013 **Evaluation commission** – Guatemalan Basic Sciences Olympiad.
- 2011 **Ad-Honorem teacher assistant** – Faculty of Engineering, Universidad de San Carlos de Guatemala.

Awarded Observing Programs

- ALMA PI of 2 successful ALMA programs
Co-I of 10 successful ALMA programs from Cycle 8 to 10
- VLA PI of 1 successful VLA program in semester 17B
Co-I of 5 successful VLA programs from semester 20A to 21B

Presentations and Scientific Talks

- Since 2018 **Colloquium or Seminar speaker** at over 12 different universities and observatories.
- Since 2019 **Contributed speaker** to over 3 national and international conferences.

Public Outreach

- Speaker at multiple events for general public in Guatemala, Mexico, and Chile.
- Scientific press releases of ALMA Large program papers (alma-maps.info/press.html)

Publication Record

See full list of refereed publications: [ADS NASA Author: Sierra, Anibal](#)

Referees

1. Susana Lizano, PhD advisor and Professor at IRyA-UNAM (Mexico).
email: s.lizano@irya.unam.mx
2. Laura Pérez, Professor at Departamento de Astronomía, UChile (Chile).
email: lperez@das.uchile.cl
3. Myriam Benisty, Professor at the Observatory of the Cote d’Azur (France).
email: Myriam.Benisty@univ-grenoble-alpes.fr