Kevin N. Ortiz Ceballos *(he/him/él)* — *Curriculum Vitae*

Contact Information

Center for Astrophysics | Harvard & Smithsonian
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Education

PhD in Astronomy & Astrophysics — *In progress*
Harvard University, Cambridge, Massachusetts

Bachelor of Science in Physics with a second concentration in Philosophy — 2021
Magna Cum Laude, University of Puerto Rico Río Piedras, San Juan, Puerto Rico

Research Positions

Graduate Student Researcher — Sep 2021 to *present*
Center for Astrophysics | Harvard & Smithsonian

Radio Astronomy Researcher — May 2018 to Sep 2021
Planetary Habitability Laboratory, University of Puerto Rico at Arecibo

Astronomy Research Intern — Jun 2020 to Jul 2020
Space Telescope Science Institute

Astrophysics Undergraduate Researcher — Jun 2019 to Aug 2019
Banneker Institute, Harvard University

Honors & Awards

NSF Graduate Research Fellowship	2021-2026
Ford Foundation Predoctoral Fellowship	2021-2027
Barry Goldwater Scholarship	2020
USRA Distinguished Undergraduate Scholarship	2019
Mellon-Mays Undergraduate Fellowship	2019-2021
Puerto Rico Louis Stokes Alliance for Minority Participation Award	2019-2021
Puerto Rico Space Grant Consortium NASA Fellowship	2018-2019

Research Interests

Planetary, Exoplanetary, and Observational Astrophysics. Exoplanet characterization and transmission spectroscopy, radio observations of Solar System bodies and exoplanetary systems; and multiwavelength observational astrophysics.

Telescope Time

As Principal Investigator, over multiple programs, awarded >60 hours on the Very Large Array, >79 hours on MeerKAT, >12 hours at the Arecibo Observatory, and 3 nights on the MMT.

Technical Skills

Observational data reduction: Experience with space (JWST NIRSpec) and ground-based (Magellan/IMACS) spectrophotometry for exoplanet transits, and radio observations with the Very Large Array, MeerKAT, Arecibo and the Submillimeter Array.

Software: Python, IDL, DS9, CASA, Arecibo IDL, JMARS, LaTeX, Adobe Photoshop, Premiere & Lightroom.

University Service

Social and Rec Committee Member (CfA)	2023 to present
Graduate Student Council Representative (Harvard GSAS)	2023 to 2024
Academic Senator for the Faculty of Natural Sciences (UPR)	2018 to 2019
General Student Council Representative (UPR)	2018 to 2019
National Student Confederation Representative (UPR)	2018 to 2019

Biographical Information

Citizenship: United States of America
Languages: Fluent in English and Spanish. Experienced as Spanish-English interpreter.

TEACHING

Instructor, Taller Futur@ Astrónom@ 2024 and 2025
Instructor for the Stellar Evolution course for *Taller Futur@ Astrónom@* at the University of Puerto Rico at Humacao, a NASA-funded intensive summer school for high school students in astronomy and astrophysics.

Head Teaching Fellow, Harvard University 2024
Taught a laboratory section (∼15 students) and coordinated the teaching team (5 TFs) for GenEd 1070 - Life as a Planetary Phenomenon under Prof. Dimitar Sasselov.

Teaching Fellow, Harvard University 2023
Taught a section (∼12 students) for GenEd 1112 - Prediction: The Past & Present of the Future under Prof. Alyssa Goodman.

Observer/Presenter, PHL Outreach Program 2018 to 2021
Helped bring over 50 students and community members to on-site observations at the Arecibo Observatory, as well as take part in the PHL's outreach and media efforts.

Teacher Assistant, STEMS Program 2018
High school algebra tutor and in-classroom teacher assistant as part of the Swearer Tutoring Enrichment in Math and Science (STEMS) Program at Brown University.

MANUSCRIPTS & PUBLICATIONS

As first or second author:

[2] Abel Méndez, **Kevin N. Ortiz Ceballos**, and Jorge I. Zuluaga, 2024, "Arecibo Wow! I: An Astrophysical Explanation for the Wow! Signal," *Under review*, https://ui.adsabs.harvard.edu/abs/2024arXiv240808513M.

[1] **Kevin N. Ortiz Ceballos**, Yvette Cendes, Edo Berger, and Peter K. G. Williams, 2024, "A Volume-Limited Radio Search for Magnetic Activity in 140 Exoplanets with the Very Large Array," The Astronomical Journal (IOP) **168**, 127, https://ui.adsabs.harvard.edu/abs/2024AJ....168..127O.

As co-author:

[9] Shreyas Vissapragada, Patrick McCreery, Leonardo A. Dos Santos, Néstor Espinoza, et al., 2024, "A High-Resolution Non-Detection of Escaping Helium in the Ultrahot Neptune LTT 9779b: Evidence for Weakened Evaporation," The Astrophysical Journal (IOP) **962**, L19, https://ui.adsabs.harvard.edu/abs/2024ApJ...962L..19V.

[8] Jacob Lustig-Yaeger, Guangwei Fu, E. M. May, **Kevin N. Ortiz Ceballos**, et al., 2023, "A JWST Transmission Spectrum of the Nearby Earth-Sized Exoplanet LHS 475 b," Nature Astronomy **7**, 1317–1328, https://ui.adsabs.harvard.edu/abs/2023NatAs...7.1317L.

[7] Chima D. McGruder, Mercedes López-Morales, James Kirk, Benjamin V. Rackham, et al., 2023, "ACCESS, LRG-BEASTS, and MOPSS: Featureless Optical Transmission Spectra of WASP-25b and WASP-124b," The Astronomical Journal (IOP) **166**, 120, https://ui.adsabs.harvard.edu/abs/2023AJ....166..120M.

[6] Sarah E. Moran, Kevin B. Stevenson, David K. Sing, Ryan J. MacDonald, et al., 2023, "High Tide or Riptide on the Cosmic Shoreline? A Water-Rich Atmosphere or Stellar Contamination for the Warm Super-Earth GJ 486b from JWST Observations," The Astrophysical Journal (IOP) **948**, L11, https://ui.adsabs.harvard.edu/abs/2023ApJ...948L..11M.

[5] JWST Transiting Exoplanet Community Early Release Science Team, 2023, "Identification of Carbon Dioxide in an Exoplanet Atmosphere," Nature **614**, 649–652, https://ui.adsabs.harvard.edu/abs/2023Natur.614..649J.

[4] Chima D. McGruder, Mercedes López-Morales, James Kirk, Néstor Espinoza, et al., 2022, "ACCESS: Confirmation of a Clear Atmosphere for WASP-96b and a Comparison of Light Curve Detrending Techniques," The Astronomical Journal (IOP) **164**, 134, https://ui.adsabs.harvard.edu/abs/2022AJ....164..134M.

[3] Natalie H. Allen, Néstor Espinoza, Andrés Jordán, Mercedes López-Morales, et al., 2022, "ACCESS: Tentative Detection of H2O in the Ground-Based Optical Transmission Spectrum of the Low-Density Hot Saturn HATS-5b," The Astronomical Journal (IOP) **164**, 153, https://ui.adsabs.harvard.edu/abs/2022AJ....164..153A.

[2] Abel Méndez, Edgard G. Rivera-Valentín, Dirk Schulze-Makuch, Justin Filiberto, et al., 2021, "Habitability Models for Astrobiology," Astrobiology **21**, 1017–1027, https://ui.adsabs.harvard.edu/abs/2021AsBio..21.1017M.

[1] Abel Méndez, Edgard G. Rivera-Valentín, Dirk Schulze-Makuch, Justin Filiberto, et al., 2020, "Habitability Models for Planetary Sciences," submitted as White Paper for the Planetary Science and Astrobiology Decadal Survey 2023 - 2032, https://ui.adsabs.harvard.edu/abs/2020arXiv200705491M.