

CONTACT INFORMATION	Planetary Habitability Laboratory University of Puerto Rico at Arecibo Arecibo, PR 00614	<i>Website:</i> kevinortizceballos.com <i>Cell Phone:</i> +1-787-446-7551 <i>E-mail:</i> kevin.ortiz22@upr.edu
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EDUCATION	PhD in Astronomy & Astrophysics (Incoming) <i>Starting Fall 2021</i> Harvard University, Cambridge, MA Bachelor of Science in Physics with a second concentration in Philosophy <i>In Progress</i> University of Puerto Rico Río Piedras Campus, San Juan, Puerto Rico • Visiting student at Brown University for the academic year of 2017-2018 High School Diploma (with High Honors) 2016 Escuela Secundaria de la Universidad de Puerto Rico (UHS), San Juan, Puerto Rico
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RESEARCH POSITIONS	Astronomy Researcher <i>May 2018 to present</i> Planetary Habitability Laboratory , University of Puerto Rico at Arecibo <ul style="list-style-type: none"> • In charge of preparing observing proposals, running observations, analyzing data (IDL & Python), incorporating students into observations and communicating PHL research. • Leading the project investigating OH emission in interstellar comet 2I/Borisov with the Arecibo Observatory. Collaborating in Arecibo REDS, a campaign studying radio flares from stars with habitable planets. Also contributing to theory projects studying objects in open orbits and habitability models. Astronomy Research Intern <i>Jun 2020 to Jul 2020</i> Space Telescope Science Institute <ul style="list-style-type: none"> • Worked with Hubble Space Telescope and TESS data to develop pixel-level decorrelation techniques for improving detections of exoplanet atmospheres using Python. Astrophysics Undergraduate Researcher <i>Jun 2019 to Aug 2019</i> Banneker Institute , Center for Astrophysics Harvard & Smithsonian <ul style="list-style-type: none"> • Programmed dynamical simulations of exoplanetary systems using Python and REBOUND. Identified origin of transit timing variations from simulation results.
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PROFESSIONAL EXPERIENCE	Submillimeter Array 2020 Interferometry School Member <i>Jan 2020</i> Submillimeter Array , Smithsonian Astrophysical Observatory Student Computer Engineer & Team Scientist <i>Aug 2019 to May 2020</i> RockSat-X Project , University of Puerto Rico Team Scientist & Operations Officer , Mission Concept Academy <i>Jan 2019 to May 2019</i> Lucy Student Pipeline Accelerator and Competency Enabler (L'SPACE) , NASA
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HONORS & AWARDS (SELECTED)	NSF Graduate Research Fellowship <i>2021-2026</i> Ford Foundation Predoctoral Fellowship <i>2021-2027</i> Barry Goldwater Scholarship <i>2020</i> USRA Distinguished Undergraduate Scholarship <i>2019</i> Mellon-Mays Undergraduate Fellowship <i>2019-2021</i> Puerto Rico Louis Stokes Alliance for Minority Participation Award <i>2019-2021</i> Puerto Rico Space Grant Consortium NASA Fellowship <i>2018-2019</i>
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RESEARCH INTERESTS	<i>Planetary, Exoplanetary, and Observational Astrophysics.</i> Exoplanet characterization and transmission spectroscopy, radio observations of Solar System bodies and exoplanetary systems; and multiwavelength observational astrophysics.
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AWARDED TELESCOPE TIME	<p>PI Arecibo Observatory, Fall 2019 DDT, "Observing the 18 cm OH radical line in interstellar comet C/2019 Q4 (Borisov)" Project A3390, 12 hours.</p> <p>Co-I Arecibo Observatory, Fall 2020, "Radio Emissions from Dwarf Stars with Planets VI" Project A3123, 40 hours, PI: A. Méndez.</p> <p>Co-I Arecibo Observatory, Spring 2020, "Radio Emissions from Dwarf Stars with Planets V" Project A3123, 12.75 hours, PI: A. Méndez.</p> <p>Co-I Arecibo Observatory, Spring 2019, "Radio Emissions from Dwarf Stars with Planets IV" Project A3123, 16 hours, PI: A. Méndez.</p>
TELESCOPE EXPERIENCE	<p>Hubble Space Telescope Experience with data reduction and analysis of exoplanet transit data using WFC3 and STIS.</p> <p>Transiting Exoplanet Survey Satellite (TESS) Experience with data reduction and analysis of exoplanet transits from raw datasets.</p> <p>Submillimeter Array Substantial experience scripting observations, calibrating with MIR and imaging with CASA.</p> <p>Arecibo Observatory Extensive experience successfully proposing and planning for focused and large programs. Skilled in remote and on-site telescope operation, data reduction, analysis and visualization.</p>
TECHNICAL SKILLS	<p>Programming & Analysis: Skilled with analysis software such as DS9, Astropy, NumPy, SciPy, MIR, CASA, and Arecibo Mock Spectrometer software.</p> <ul style="list-style-type: none"> • Python: Intermediate, advanced for astronomy applications. • IDL: Beginner to intermediate <p>Other Software Programs & Skills: Autodesk Inventor, JMARS, L^AT_EX, Adobe Photoshop, Premiere & Lightroom. macOS, Unix, Linux, Windows.</p>
SCIENCE POLICY LEADERSHIP & OUTREACH	<p>Science Policy Ambassador Feb 2019 to <i>Present</i> Puerto Rico Science Policy Action Network (PR-SPAN)</p> <p>AAS Congressional Visit Day Volunteer 2020 Sep 2020 American Astronomical Society</p>
EDUCATION & OUTREACH (SELECTED)	<p>Circle of University Astrobiology - UPR Río Piedras, Vice President 2019 to <i>present</i> Organization for students interested in astrobiology. As Vice President, have helped organize events and a historical restoration project with Puerto Rico's first observatory.</p> <ul style="list-style-type: none"> • Media Appearance: "Long-lost astronomy observatory in Puerto Rico rediscovered by university students", article by Doris Elin Urrutia for Space.com. <p>PHL Outreach Program, Observer and Presenter 2018 to <i>present</i> Have helped bring over 50 students and community members to on-site observations at the Arecibo Observatory, as well as take part in the Lab's outreach and media efforts.</p> <ul style="list-style-type: none"> • Media Appearance: "Ciencia y Meteorología: Reconocen a jóvenes por sus investigaciones", outreach interview for Noticentro morning news segment in December 2019. <p>Swearer Tutoring Enrichment in Math and Science (STEMS) Program, Tutor 2018 Algebra tutor for 9th graders as part of the STEMS Program at Brown University.</p> <p>Volunteer Calculus I, II & III Tutor at UPRRP 2017</p>
LEADERSHIP & UNIVERSITY SERVICE	<p>Academic Senator for the Faculty of Natural Sciences Sep 2018 to Sep 2019</p> <p>Natural Sciences Student Council Representative Sep 2018 to Sep 2019</p> <p>General Student Council Representative Sep 2018 to Sep 2019</p> <p>Representative, National Student Confederation of Puerto Rico Sep 2018 to Apr 2019</p>

 CONFERENCE
ABSTRACTS

Oral session indicated by *. Long-form abstract indicated by †, PDF accessible with link.

- [9] 2021. **Ortiz Ceballos, K.N.**^{*†}, Colón Cesaní, A.H., Howell, E.S., et al., [Constraints on the Water-Production Rates of Interstellar Comet 2I/Borisov from Arecibo Radio OH Observations](#). LPSC LII, 2582.
- [8] 2021. **Ortiz Ceballos, K.N.**^{*}, Espinoza, N., [Detecting Exoplanet Atmospheres Through Spectroscopic Pixel-Level Decorrelation \(sPLD\)](#). AAS 237, Abs. #428.05.
- [7] 2020. **Ortiz Ceballos, K.N.**, Espinoza, N., [Improving The Precision Of Exoplanet Atmospheric Detections Through Pixel-Level Decorrelation \(PLD\)](#). SACNAS 2020, #67530.
- [6] 2020. **Ortiz Ceballos, K.N.**[†], Howell, E.S., Méndez, A., et al., [Observing Interstellar Comet 2I/Borisov for Radio OH Lines with the Arecibo Observatory](#). LPSC LI, #3078.
- [5] 2020. **Ortiz Ceballos, K.N.**^{*}, Pérez, J., [Rediscovering the First Astronomical Observatory of Puerto Rico](#). AAS 235, Abs. #139.05.
- [4] 2020. **Ortiz Ceballos, K.N.**, Quinn, S., Hadden, S., Yahalomi, D., Montet, B., [N-body simulations of a warm Jupiter near resonance with a sub-Neptune](#). AAS 235, Abs. #174.26.
- [3] 2020. Yahalomi, D.A., et al. including **Ortiz Ceballos, K.N.**, [Discovery of a Warm Jupiter near Resonance with an Exterior sub-Neptune](#). AAS 235, Abs. #174.23.
- [2] 2019. **Ortiz Ceballos, K.N.**[†], Méndez, A., Zuluaga, J., et al., [Arecibo REDS: The Stellar Activity of Stars with Potentially Habitable Planets](#). First Billion Years: Hab., #1038.
- [1] 2019. **Ortiz Ceballos, K.N.**[†], Méndez, A., Zuluaga, J., et al., [Arecibo REDS: The Stellar Activity of Stars with Potentially Habitable Planets](#). LPSC L, #3161.

 MANUSCRIPTS &
PUBLICATIONS

- [3] 2020. **Ortiz Ceballos, K.N.**, Colón Cesaní, A.H., Howell, E.S., Méndez, A., et al., [Radio OH Observations of Interstellar Comet 2I/Borisov](#). In preparation for a focus issue of *PSJ*.
- [2] 2020. Méndez et al. incl. **Ortiz Ceballos, K.N.**, [Habitability Models for Astrobiology](#). Accepted to *Astrobiology*.
- [1] 2020. Méndez et al. incl. **Ortiz Ceballos, K.N.**, [Habitability Models for Planetary Sciences](#). White Paper for the Planetary Science Decadal Survey 2023-2033. arXiv:2007.05491.

 INVITED TALKS

- 2020 Seminar Series, Arecibo Observatory.
- 2020 Planetary Sciences Seminar Series, University of Central Florida.

 SELECTED
PROFESSIONAL
TALKS

- 2020 Space Telescope Science Institute, online due to COVID-19.
- 2019 XVIII Physics & Chemistry Forum, UPR Arecibo, Puerto Rico.
- 2019 Arecibo Observatory, Puerto Rico.
- 2019 MMUF Southeastern Regional Conference. Houston, Texas.
- 2019 12th Knowledge Cities World Summit. Florianópolis, Brasil.
- 2019 Harvard-Smithsonian CfA, Cambridge, Massachusetts. ([Video recording](#)).
- 2019 Puerto Rico Astronomy Society. San Juan, Puerto Rico.
- 2018 XVII Physics & Chemistry Forum, UPR Arecibo, Puerto Rico.
- 2018 1st Philosophy Symposium, PCUPR, Ponce, Puerto Rico.

 BIOGRAPHICAL
INFORMATION

Citizenship: United States of America

Languages: Fluent in English and Spanish. Experienced as Spanish-English interpreter.

An up-to-date PDF of this document with links is available at
https://kevinortizceballos.com/Ortiz_Ceballos_CV.pdf