

CONTACT INFORMATION	Planetary Habitability Laboratory University of Puerto Rico at Arecibo Arecibo, PR 00163	Cell Phone: +1-787-446-7551 E-mail: kevin.ortiz22@upr.edu
EDUCATION	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 <ul style="list-style-type: none"> • Visiting student at Brown University for the academic year of 2017-2018 • Undergraduate Honors Thesis: <i>Potentially Detectable Radio Emissions from Exoplanetary Systems: A Review</i>. High School Diploma (with High Honors) 2016 Escuela Secundaria de la Universidad de Puerto Rico (UHS), San Juan, Puerto Rico	
RESEARCH POSITIONS	Astrophysics Undergraduate Researcher Jun 2019 to <i>present</i> Banneker Institute , Center for Astrophysics Harvard & Smithsonian <ul style="list-style-type: none"> • Programming dynamical simulations of exoplanetary systems using Python and REBOUND. Working on identifying origin of transit timing variations from simulation results. Fellow in Philosophy and Theory of Astrophysics May 2019 to <i>present</i> Mellon-Mays Undergraduate Fellowship , University of Puerto Rico Río Piedras Campus <ul style="list-style-type: none"> • Exploring data-generation in interferometry through epistemological analysis, constructing a corresponding data model, and studying astronomical image-making to inform how we communicate its results. Researcher in Radio Astronomy May 2018 to <i>present</i> Planetary Habitability Laboratory , University of Puerto Rico at Arecibo <ul style="list-style-type: none"> • In charge of preparing & submitting observing proposals, running observations, reducing and analyzing data (IDL & Python), and working with the educational component of incorporating students into observations and communicating the PHL's research. 	
MISSION DEVELOPMENT EXPERIENCE	Team Computer Engineer & Scientist Aug 2019 to <i>present</i> RockSat-X Project , University of Puerto Rico Río Piedras Campus <ul style="list-style-type: none"> • Working on the Astrogenomics Sequencing at the Karman Line (ASK-L) sounding rocket experiment, from initial design to launch in August 2020. Tasks include programming computer and telemetry systems, and payload preparation and construction. Team Scientist & Operations Officer Jan 2019 to May 2019 L'SPACE Undergraduate Mission Concept Academy , NASA <ul style="list-style-type: none"> • Worked on a Preliminary Design Review for the Spectral Electromagnetic Exploration Rover (SEER) Mission Concept. Conducted research & designed the mission experiment & data acquisition. 	
AREAS OF INTEREST	<i>Planetary, Exoplanetary, and Observational Astrophysics</i> , with a particular focus on radio astronomical studies of solar system bodies and exoplanetary systems; potential radio detections of exoplanets; observational astrobiology and exoplanet characterization; radio interferometry; and multiwavelength observational astrophysics. <i>Philosophy and Theory of Science and Astrophysics</i> , with a particular focus on the epistemology of data generation in observational astrophysics; models of data in radio and optical interferometric methods; image-making in astronomy; as well as an interest for the ethics of astronomy and land.	

AWARDED TELESCOPE TIME	<p>Submillimeter Array Interferometry School Program (2020): <i>Observing 3C 346 with the Submillimeter Array</i> Special Program, 2020 School. Principal Investigator: K. Ortiz Ceballos. Allocated 3 hours.</p> <p>Arecibo Observatory Director's Discretionary Time Urgent Proposal (2019): <i>Observing the 18 cm OH radical line in interstellar comet C/2019 Q4 (Borisov)</i> Project A3390. Principal Investigator: K. Ortiz Ceballos. Allocated 12 hours.</p> <p>Arecibo Observatory Spring Semester (2019, as Co-Investigator): <i>Radio Emissions from Dwarf Stars with Planets IV</i> Project A3123. Principal Investigator: A. Méndez. Allocated 24 hours.</p>
RESEARCH AWARDS	<p>USRA Distinguished Undergraduate Scholarship \$5k</p> <p>Mellon-Mays Undergraduate Fellowship \$36k Awarded to fund philosophy and theory of astrophysics work at the Department of Philosophy. Hosted at the University of Puerto Rico, Río Piedras Campus, 2019-2021.</p> <p>Louis Stokes Alliance for Minority Participation Award \$2.5k Awarded to fund radio astronomy work at the Planetary Habitability Laboratory. Hosted at the University of Puerto Rico at Arecibo, 2019-2020.</p> <p>Puerto Rico Space Grant Consortium NASA Fellowship \$10k Awarded to fund radio astronomy work at the Planetary Habitability Laboratory. Hosted at the University of Puerto Rico at Arecibo, 2018-2019.</p>
OTHER AWARDS	<p>First Billion Years: Habitability Conference Travel Award \$2.5k, funded by USRA 50th Lunar and Planetary Science Conference Travel Award \$2.5k, funded by PRSGC United Nations Academic Impact Millennium Fellowship Honor Studies Program, University of Puerto Rico Río Piedras Campus Dean's List, University of Puerto Rico Río Piedras Campus</p>
TECHNICAL SKILLS	<p>Astronomy: Radio telescope operation and observation planning, on-site and remotely; astronomical spectroscopy and single-dish and interferometric radio astronomical data reduction. Programming & Analysis: Python, IDL, shell scripting, DS9, Astropy, MIR, CASA. Other Software: Autodesk Inventor, JMARS, L^AT_EX, Adobe Photoshop, Premiere & Lightroom OS: macOS, Unix, Linux, Windows</p>
PROFESSIONAL DEVELOPMENT	<p>Submillimeter Array 2020 Interferometry School Jan 2020 Submillimeter Array, Smithsonian Astrophysical Observatory and Academia Sinica IAA</p> <ul style="list-style-type: none"> Learned how to plan and write observation scripts for the Submillimeter Array, calibrate and reduce interferometric data using MIR and IDL, and image and analyze data using CASA. <p>NASA Proposal Writing and Evaluation Experience Aug 2019 to Dec 2019 Lucy Student Pipeline Accelerator and Competency Enabler (L'SPACE), NASA</p> <ul style="list-style-type: none"> Learned how to effectively write concept proposals that turns innovative ideas into reality. Gained experience in the process of writing, reviewing, and scoring proposals through the lens of a NASA reviewer.
SCIENCE POLICY OUTREACH	<p>Science Policy Ambassador for the Puerto Rico Science Policy Action Network (PR-SPAN)</p> <ul style="list-style-type: none"> As Ambassador of PR-SPAN, in charge of informing the development and implementation of federal, state and local policies based on scientific evidence. Specific tasks include editing of PR-SPAN newsletter and materials, assistance in event organizing, and advocating directly to federal and state legislatures and policymakers.

EDUCATION & OUTREACH	<ul style="list-style-type: none"> • Vicepresident of the Circle of University Astrobiology, UPRRP. Fall 2019. • Helped bring over 40 students and community members to take part in on-site observations at the Arecibo Observatory. 2019. • Algebra tutor for 9th graders at Hope High School in Providence, RI as part of the STEMS Program at Brown University. Spring 2018. • Co-founded and co-directed Multi-faith Organizing for College Hill Activism (MOCHA) at Brown University. Spring 2018. • Calculus I, II & III voluntary tutor at the Faculty of Natural Sciences, UPRRP. 2017.
INVITED TALKS	<p>Observing the First Interstellar Comet 2I/Borisov from the Arecibo Observatory</p> <ul style="list-style-type: none"> • Seminar Series, Arecibo Observatory. Arecibo, Puerto Rico, 2020 <p>Mapping the Habitable Universe from Puerto Rico</p> <ul style="list-style-type: none"> • Planetary Sciences Seminar Series, UCF. Orlando, Florida, 2020
CONFERENCE ABSTRACTS	<p><i>Oral session indicated by *</i></p> <p>[6] 2020. Ortiz Ceballos, K.N., Howell, E.S., Méndez, A., Fernandez, Y.R., Lovell, A.J., et al., Observing Interstellar Comet 2I/Borisov for Radio OH Lines with the Arecibo Observatory. LPSC LI, Abstract #3078.</p> <p>[5] 2020. Ortiz Ceballos, K.N.*, Pérez, J., Rediscovering the First Astronomical Observatory of Puerto Rico. 235th Meeting of the American Astronomical Society, Abstract #139.05.</p> <p>[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. 235th Meeting of the American Astronomical Society, Abstract #174.26.</p> <p>[3] 2020. Yahalomi, D.A., et al. including Ortiz Ceballos, K.N., Discovery of a Warm Jupiter near Resonance with an Exterior sub-Neptune. 235th Meeting of the American Astronomical Society, Abstract #174.23.</p> <p>[2] 2019. Ortiz Ceballos, K.N., Méndez, A., Zuluaga, J., Heller, R., Alexander, D., Pacini, A., Arecibo REDS: The Stellar Activity of Stars with Potentially Habitable Planets. The First Billion Years: Habitability, Abstract #1038.</p> <p>[1] 2019. Ortiz Ceballos, K.N., Méndez, A., Zuluaga, J., Heller, R., Alexander, D., Pacini, A., Arecibo REDS: The Stellar Activity of Stars with Potentially Habitable Planets. LPSC L, Abstract #3161.</p>
OTHER TALKS & PRESENTATIONS	<ul style="list-style-type: none"> • <i>"Observations of the First Interstellar Comet 2I/Borisov from the Arecibo Observatory"</i> Contributed Talk. XVIII Physics & Chemistry Forum, UPR Arecibo, Puerto Rico, 2019 • <i>"Models of Data in Radio Astronomy"</i> Contributed Talk. 5th World Day of Philosophy, UPRRP. San Juan, Puerto Rico, 2019 • <i>"What's In a Picture of a Shadow? Looking at a Black Hole"</i> Contributed Talk. MMUF Southeastern Regional Conference. Houston, Texas, 2019 • <i>"What's In a Picture of a Shadow? Looking at a Black Hole"</i> Special Session Talk. 12th Knowledge Cities World Summit. Florianópolis, Brasil, 2019 • <i>"Trojan Asteroids Near the Orbit of Jupiter"</i> Invited Outreach Talk. Puerto Rico Astronomy Society. San Juan, Puerto Rico, 2019 • <i>"Arecibo Radio Emissions from Dwarf Stars with Potentially Habitable Planets"</i> Research Oral Presentation. 53rd JTM / 38th PRISM Meeting, Mayagüez, Puerto Rico, 2019 • <i>"Arecibo REDS: Radio Emissions from Red Dwarf Stars with Planets"</i> Contributed Talk. XVII Physics & Chemistry Forum, UPR Arecibo, Puerto Rico, 2018 • <i>"String Theory: Towards a New Paradigm Beyond Falsifiability?"</i> Symposium Talk. 1st Philosophy Symposium, PCUPR, Ponce, Puerto Rico, 2018

UNIVERSITY SERVICE	Alt. Representative to the Board of Graduate Studies and Research Academic Senator for the Faculty of Natural Sciences, UPRRP Spokesperson for the Senate Student Caucus Representative, Natural Sciences Student Council, UPRRP President, Academic Issues and Orientation Committee Member, Law and Regulation Committee Representative, General Student Council, UPRRP Member, Gender & Equity Issues Committee UPRRP Rep. to the National Student Confederation of Puerto Rico	Sep 2019 to <i>present</i> Sep 2018 to Sep 2019 Apr 2019 to Sep 2019 Sep 2018 to Sep 2019 Sep 2018 to Sep 2019 Sep 2018 to Apr 2019
PROFESSIONAL MEMBERSHIPS	American Astronomical Society Undergraduate Member Puerto Rico Astronomy Society Student Member Society of Physics Students National Member UPRRP Philosophy Students Association	
BIOGRAPHICAL INFORMATION	Citizenship: United States of America Languages: Fluent in English and Spanish. Experienced as Spanish-English interpreter.	
