

CONTACT INFORMATION	<b>Planetary Habitability Laboratory</b> University of Puerto Rico at Arecibo Arecibo, PR 00163	Website: <a href="https://kortizceballos.github.io">kortizceballos.github.io</a> E-mail: <a href="mailto:kevin.ortiz22@upr.edu">kevin.ortiz22@upr.edu</a>
EDUCATION	<b>Bachelor of Science in Physics with a second concentration in Philosophy</b> <i>In Progress</i> University of Puerto Rico Río Piedras Campus, San Juan, Puerto Rico <ul style="list-style-type: none"> <li>• Visiting student at Brown University for the academic year of 2017-2018</li> <li>• Undergraduate Honors Thesis: <i>Potentially Detectable Radio Emissions from Exoplanetary Systems: A Review</i>.</li> </ul> <b>High School Diploma</b> (with High Honors) 2016 Escuela Secundaria de la Universidad de Puerto Rico (UHS), San Juan, Puerto Rico	
RESEARCH POSITIONS	<b>Astrophysics Undergraduate Researcher</b> Jun 2019 to <i>present</i> <a href="#">Banneker Institute</a> , Center for Astrophysics   Harvard & Smithsonian <ul style="list-style-type: none"> <li>• Programming dynamical simulations of exoplanetary systems using Python and REBOUND. Working on identifying origin of transit timing variations from simulation results.</li> </ul> <b>Fellow in Philosophy and Theory of Astrophysics</b> May 2019 to <i>present</i> <a href="#">Mellon-Mays Undergraduate Fellowship</a> , University of Puerto Rico Río Piedras Campus <ul style="list-style-type: none"> <li>• 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.</li> </ul> <b>Researcher in Radio Astronomy</b> May 2018 to <i>present</i> <a href="#">Planetary Habitability Laboratory</a> , University of Puerto Rico at Arecibo <ul style="list-style-type: none"> <li>• In charge of preparing &amp; submitting observing proposals, running observations, reducing and analyzing data (IDL &amp; Python), and working with the educational component of incorporating students into observations and communicating the PHL's research.</li> </ul>	
MISSION DEVELOPMENT EXPERIENCE	<b>Lead Computer Engineer &amp; Team Scientist</b> Aug 2019 to <i>present</i> <a href="#">RockSat-X Project</a> , University of Puerto Rico Río Piedras Campus <ul style="list-style-type: none"> <li>• 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.</li> </ul> <b>Team Scientist &amp; Operations Officer</b> Jan 2019 to May 2019 <a href="#">L'SPACE Undergraduate Mission Concept Academy</a> , NASA <ul style="list-style-type: none"> <li>• Worked on a Preliminary Design Review for the Spectral Electromagnetic Exploration Rover (SEER) Mission Concept. Conducted research &amp; designed the mission experiment &amp; data acquisition.</li> </ul>	
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><b>Submillimeter Array</b> Interferometry School Program (2020):  <i>Observing 3C 346 with the Submillimeter Array</i>  <a href="#">Special Program, 2020 School</a>. <b>Principal Investigator: K. Ortiz Ceballos. Allocated 3 hours.</b></p> <p><b>Arecibo Observatory</b> Director's Discretionary Time Urgent Proposal (2019):  <i>Observing the 18 cm OH radical line in interstellar comet C/2019 Q4 (Borisov)</i>  <a href="#">Project A3390</a>. <b>Principal Investigator: K. Ortiz Ceballos. Allocated 12 hours.</b></p> <p><b>Arecibo Observatory</b> Spring 2019 and Spring 2020 (as Co-Investigator):  <i>Radio Emissions from Dwarf Stars with Planets IV &amp; V</i>  <a href="#">Project A3123</a>. <b>Principal Investigator: A. Méndez. Allocated 48 hours total.</b></p>
RESEARCH AWARDS	<p><b>USRA Distinguished Undergraduate Scholarship</b> (1 of 4 awarded in 2019)   \$5k</p> <p><b>Mellon-Mays Undergraduate Fellowship</b>   \$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><b>Louis Stokes Alliance for Minority Participation Award</b>   \$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><b>Puerto Rico Space Grant Consortium NASA Fellowship</b>   \$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>FBY: Habitability Travel Award   \$2.5k      Dean's List, UPRRP  LPSC L Travel Award (funded by PRSGC)   \$2.5k      Honor Studies Program, UPRRP  United Nations Millennium Fellowship</p>
TECHNICAL SKILLS	<p><b>Astronomy:</b> Radio telescope operation and observation planning, on-site and remotely; astronomical spectroscopy and single-dish and interferometric radio astronomical data reduction.  <b>Programming &amp; Analysis:</b> Python, IDL, shell scripting, DS9, Astropy, MIR, CASA.  <b>Other Software:</b> Autodesk Inventor, JMARS, L<sup>A</sup>T<sub>E</sub>X, Adobe Photoshop, Premiere &amp; Lightroom  <b>OS:</b> macOS, Unix, Linux, Windows</p>
PROFESSIONAL DEVELOPMENT	<p><b>Submillimeter Array 2020 Interferometry School</b> Jan 2020  <a href="#">Submillimeter Array</a>, Smithsonian Astrophysical Observatory and Academia Sinica IAA</p> <ul style="list-style-type: none"> <li>Learned how to plan and write observation scripts for the Submillimeter Array, calibrate and reduce interferometric data with MIR and IDL, and image and analyze using CASA.</li> </ul> <p><b>NASA Proposal Writing and Evaluation Experience</b> Aug 2019 to Dec 2019  <a href="#">Lucy Student Pipeline Accelerator and Competency Enabler (L'SPACE)</a>, NASA</p> <ul style="list-style-type: none"> <li>Learned how to effectively write concept proposals that turn innovative ideas into reality. Gained experience in the process of writing, reviewing, and scoring NASA proposals.</li> </ul>
SCIENCE POLICY OUTREACH	<p><b>Science Policy Ambassador</b> for the <a href="#">Puerto Rico Science Policy Action Network (PR-SPAN)</a></p> <ul style="list-style-type: none"> <li>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, state, and local legislators and policymakers.</li> </ul> <p><b>AAS Congressional Visit Day Volunteer 2020</b> for the <a href="#">American Astronomical Society</a></p> <ul style="list-style-type: none"> <li>Selected to advocate directly to Congress in Washington DC on behalf of the AAS for federal support and funding for space and astronomical science.</li> </ul>

INVITED TALKS	<b>Observing the First Interstellar Comet 2I/Borisov from the Arecibo Observatory</b> <ul style="list-style-type: none"> <li>• Seminar Series, Arecibo Observatory. Arecibo, Puerto Rico. Scheduled Feb 19th, 2020.</li> </ul> <b>Mapping the Habitable Universe from Puerto Rico</b> <ul style="list-style-type: none"> <li>• Planetary Sciences Seminar Series, UCF. Orlando, Florida. Feb 7th, 2020</li> </ul>																		
CONFERENCE ABSTRACTS	<p><i>Oral session indicated by *</i></p> <p>[6] 2020. <b>Ortiz Ceballos, K.N.</b>, Howell, E.S., Méndez, A., Fernandez, Y.R., Lovell, A.J., et al., <a href="#">Observing Interstellar Comet 2I/Borisov for Radio OH Lines with the Arecibo Observatory</a>. Lunar and Planetary Science Conference LI, Abstract #3078.</p> <p>[5] 2020. <b>Ortiz Ceballos, K.N.</b>*, Pérez, J., <a href="#">Rediscovering the First Astronomical Observatory of Puerto Rico</a>. 235th Meeting of the American Astronomical Society, Abstract #139.05.</p> <p>[4] 2020. <b>Ortiz Ceballos, K.N.</b>, Quinn, S., Hadden, S., Yahalomi, D., Montet, B., <a href="#">N-body simulations of a warm Jupiter near resonance with a sub-Neptune</a>. 235th Meeting of the American Astronomical Society, Abstract #174.26.</p> <p>[3] 2020. Yahalomi, D.A., et al. including <b>Ortiz Ceballos, K.N.</b>, <a href="#">Discovery of a Warm Jupiter near Resonance with an Exterior sub-Neptune</a>. 235th Meeting of the American Astronomical Society, Abstract #174.23.</p> <p>[2] 2019. <b>Ortiz Ceballos, K.N.</b>, Méndez, A., Zuluaga, J., Heller, R., Alexander, D., Pacini, A., <a href="#">Arecibo REDS: The Stellar Activity of Stars with Potentially Habitable Planets</a>. The First Billion Years: Habitability, Abstract #1038.</p> <p>[1] 2019. <b>Ortiz Ceballos, K.N.</b>, Méndez, A., Zuluaga, J., Heller, R., Alexander, D., Pacini, A., <a href="#">Arecibo REDS: The Stellar Activity of Stars with Potentially Habitable Planets</a>. Lunar and Planetary Science Conference L, Abstract #3161.</p>																		
OTHER TALKS & PRESENTATIONS	<ul style="list-style-type: none"> <li>• <i>"Observations of the First Interstellar Comet 2I/Borisov from the Arecibo Observatory"</i> Contributed Talk. XVIII Physics &amp; Chemistry Forum, UPR Arecibo, Puerto Rico, 2019</li> <li>• <i>"Models of Data in Radio Astronomy"</i> Contributed Talk. 5th World Day of Philosophy, UPRRP. San Juan, Puerto Rico, 2019</li> <li>• <i>"What's In a Picture of a Shadow? Looking at a Black Hole"</i> Contributed Talk. MMUF Southeastern Regional Conference. Houston, Texas, 2019</li> <li>• <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</li> <li>• <i>"Trojan Asteroids Near the Orbit of Jupiter"</i> Invited Outreach Talk. Puerto Rico Astronomy Society. San Juan, Puerto Rico, 2019</li> <li>• <i>"Arecibo Radio Emissions from Dwarf Stars with Potentially Habitable Planets"</i> Research Oral Presentation. 53rd JTM / 38th PRISM Meeting, Mayagüez, Puerto Rico, 2019</li> <li>• <i>"Arecibo REDS: Radio Emissions from Red Dwarf Stars with Planets"</i> Contributed Talk. XVII Physics &amp; Chemistry Forum, UPR Arecibo, Puerto Rico, 2018</li> <li>• <i>"String Theory: Towards a New Paradigm Beyond Falsifiability?"</i> Symposium Talk. 1st Philosophy Symposium, PCUPR, Ponce, Puerto Rico, 2018</li> </ul>																		
UNIVERSITY SERVICE & LEADERSHIP	<table> <tr> <td>Alt. Representative to the Board of Graduate Studies and Research</td> <td>Sep 2019 to <i>present</i></td> </tr> <tr> <td>Academic Senator for the Faculty of Natural Sciences, UPRRP</td> <td>Sep 2018 to Sep 2019</td> </tr> <tr> <td>Spokesperson for the Senate Student Caucus</td> <td>Apr 2019 to Sep 2019</td> </tr> <tr> <td>Representative, Natural Sciences Student Council, UPRRP</td> <td>Sep 2018 to Sep 2019</td> </tr> <tr> <td>President, Academic Issues and Orientation Committee</td> <td></td> </tr> <tr> <td>Member, Law and Regulation Committee</td> <td></td> </tr> <tr> <td>Representative, General Student Council, UPRRP</td> <td>Sep 2018 to Sep 2019</td> </tr> <tr> <td>Member, Gender &amp; Equity Issues Committee</td> <td></td> </tr> <tr> <td>UPRRP Rep. to the National Student Confederation of Puerto Rico</td> <td>Sep 2018 to Apr 2019</td> </tr> </table>	Alt. Representative to the Board of Graduate Studies and Research	Sep 2019 to <i>present</i>	Academic Senator for the Faculty of Natural Sciences, UPRRP	Sep 2018 to Sep 2019	Spokesperson for the Senate Student Caucus	Apr 2019 to Sep 2019	Representative, Natural Sciences Student Council, UPRRP	Sep 2018 to Sep 2019	President, Academic Issues and Orientation Committee		Member, Law and Regulation Committee		Representative, General Student Council, UPRRP	Sep 2018 to Sep 2019	Member, Gender & Equity Issues Committee		UPRRP Rep. to the National Student Confederation of Puerto Rico	Sep 2018 to Apr 2019
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EDUCATION, OUTREACH & SERVICE	<p><b>Circle of University Astrobiology</b>, Vice President 2019 to <i>present</i> Student organization for science and non-science majors interested in astrobiology at the University of Puerto Rico, Río Piedras Campus. As Vice President, have helped organize events and projects such as micrometeorite hunts, campus flora geotagging, and a historical and restoration project with Puerto Rico's first astronomical observatory.</p> <p><b>PHL Outreach Program</b>, Observer and Presenter 2018 to <i>present</i> Have helped bring over 40 students and community members to take part in on-site observations at the Arecibo Observatory.</p> <p><b>Swearer Tutoring Enrichment in Math and Science (STEMS) Program</b>, Tutor 2018 Algebra tutor for 9th graders at Hope High School in Providence, RI as part of the <a href="#">STEMS Program</a> at Brown University.</p> <p><b>Multi-faith Organizing for College Hill Activism (MOCHA)</b>, Co-founder/director 2018 Founded MOCHA at Brown University in the spring of 2018. This organization helped coordinate activism for social justice between religiously-oriented activist groups in the Brown/RISD community.</p> <p><b>Voluntary Calculus Tutor</b> 2017 Calculus I, II &amp; III voluntary tutor at the Faculty of Natural Sciences, University of Puerto Rico, Río Piedras Campus.</p>
PROFESSIONAL MEMBERSHIPS	<hr/> <p>American Astronomical Society   Undergraduate Member Puerto Rico Astronomy Society   Student Member Society of Physics Students   National Member UPRRP Philosophy Students Association</p> <hr/>
BIOGRAPHICAL INFORMATION	<p><b>Citizenship:</b> United States of America <b>Languages:</b> Fluent in English and Spanish. Experienced as Spanish-English interpreter.</p>