

Rodrigo E. L. Córdoba Rosado

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Osage Nation Tribal Enrollment No. 025118

EDUCATION	Princeton University , Princeton, New Jersey, USA	
	Ph.D. in Astrophysical Sciences	2020 – <i>Present</i>
	M.A. in Astrophysical Sciences	2022
	University of Cambridge , Cambridge, Cambridgeshire, UK	
	MPhil in Archaeology of the Americas	2019 – 2020
	Dissertation: “New Approaches to the Archaeoastronomy of Chaco Canyon”	
	Harvard University , Cambridge, Massachusetts, USA	
	<i>Cum Laude</i> Joint A.B. in Astrophysics-Physics	2015 – 2019
	Secondary in Archaeology	
PROFESSIONAL APPOINTMENTS	Graduate Fellow	
	Lichtenstein Institute on Self Determination (LISD), Princeton University	2023 – <i>Present</i>
	Non Resident Tutor	
	Currier House, Harvard University	2022 – <i>Present</i>
	Graduate Assistant in Instruction	
	Department of Astrophysical Sciences, Princeton University	
	AST 203 - The Universe (Spring 2022) AST 205 - Planets of the Universe (Fall 2021)	
	Resident Graduate Student	
	Forbes College, Princeton University	2021 – <i>Present</i>
	Graduate Researcher	
	Department of Astrophysical Sciences, Princeton University	2020 – <i>Present</i>
	Graduate Teaching Fellow	
	Princeton University Preparatory Program (PUPP)	2020 – 2023
	Gates Cambridge Scholar	
	University of Cambridge	2019 – 2020
	NASA/JPL Intern	
	Caltech SURF Program, Jet Propulsion Laboratory, California Institute of Technology	2018
	SAO Intern	
	Event Horizon Telescope, Smithsonian Astrophysical Observatory, Harvard University	2017 – 2018
HONORS & AWARDS	Clay Telescope Observer - Group Leader	
	Center for Astrophysics Harvard & Smithsonian	2016 – 2019
	Affiliated Student - Banneker Institute	
	Center for Astrophysics Harvard & Smithsonian	2016 – 2017
	Tutor - Bureau of Study Counsel	
	Harvard University	2016 – 2019
	Mentorship Award, Best of Access, Diversity and Inclusion Awards - Princeton University Graduate School	2023
	Equity Award, Department of Astrophysical Sciences, Princeton University	2023
	Ford Foundation Pre-Doctoral Fellowship, National Academies of Sciences, Engineering & Medicine	2022
	Princeton Graduate Scholars Program (GSP)	2020
	President’s Fellowship - Princeton University Graduate School	2020
	2020 Breakthrough Prize in Fundamental Physics Co-Recipient (EHT)	2019
	Gates Cambridge Scholarship	2019
	Caltech Summer Undergraduate Research Fellowship	2018
	Harvard College Research Program Summer Research Fellowship	2017 & 2016

SELECTED PUBLICATIONS

A full list of publications can be found [here](#).

PAPERS

Córdova Rosado, R., “The Solstitial Axis: Solar Alignments in Ancient Mesoamerica”, *Submitted*.

Córdova Rosado, R., Goulding, A., Greene, J., et al. “Cross-correlation of Luminous Red Galaxies with ML-selected AGN in HSC-SSP: Unobscured AGN residing in more massive halos”, *Submitted to The Astrophysical Journal*.

Córdova Rosado, R., Hensley, B., Clark, S., Duivenvoorden, A., et al. “The Atacama Cosmology Telescope: Galactic Dust Structure and the Cosmic PAH Background in Cross-correlation with WISE”, *The Astrophysical Journal*, Jan 2024. DOI: [10.3847/1538-4357/ad05cd](https://doi.org/10.3847/1538-4357/ad05cd)

Raymond, A.; Palumbo, D.; Paine, S.; Blackburn, L. **Córdova Rosado, R.**; Doeleman, S; et al., “Evaluation of New Submillimeter VLBI Sites for the Event Horizon Telescope,” *The Astrophysical Journal, Supplemental Series* Feb 2021. DOI: [10.3847/1538-3881/abc3c3](https://doi.org/10.3847/1538-3881/abc3c3)

Event Horizon Telescope Collaboration **et al.**, “First M87 Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole,” *The Astrophysical Journal Letters* Apr 2019. DOI:[10.3847/2041-8213/ab0ec7](https://doi.org/10.3847/2041-8213/ab0ec7)

Event Horizon Telescope Collaboration **et al.**, “First M87 Event Horizon Telescope Results. II. Array and Instrumentation,” *The Astrophysical Journal Letters* Apr 2019. DOI:[10.3847/2041-8213/ab0c96](https://doi.org/10.3847/2041-8213/ab0c96)

IN PREPARATION

Córdova Rosado, R., Goulding, A., Greene, J., et al. “Cross-correlation of Luminous Red Galaxies with ML-selected AGN in HSC-SSP and DESI: A Spectroscopic Analysis.”

Córdova Rosado, R., Fuentes, A., “The Role of Celestial Ecology in Early Hominin Development.”

CONFERENCE POSTERS

Córdova Rosado, R.; Masters, D.; Rhodes, J.; “Constraints on the Dark Energy Survey’s Photometric Galaxy Redshifts,” at the *233rd American Astronomical Society Meeting*, Seattle, Washington, USA, Jan 2019. Online Poster: <https://goo.gl/1ZosGD>

Córdova Rosado, R.; et al., “Joint Meteorological Statistics of Observing Sites for the Event Horizon Telescope,” at the *231st American Astronomical Society Meeting*, Washington, D.C., USA, Jan 2018. Press Discussion: <https://goo.gl/awSb7S>

DATA RELEASES

Bieryla, A.; Carmichael, T; Challis, P.; **Cordova, R.**; Finkbeiner, D.; Gilchrist, R.; Komorowski, E.; Alonso-Monsalve, E. “spectral ID of supernova AT2017cjb ” 2017. <http://www.astronomersteletgram.org/?read=10178>

Cordova, R.; Cummins, K. “Transit Observation of HAT-P-37-b ” 2016. <http://var2.astro.cz/tresca/transit-detail.php?id=1461173881>

PUBLIC-FACING WRITING

See translations and full text [here](#).

Córdova Rosado, R. “Huye Luna, Luna, Luna”, Jul 2023, [Article link](#).

Córdova Rosado, R. “Homo naledi, seres de la estrella creciente”, Jun 2023, [Article link](#).

Córdova Rosado, R. “Cuatro minutos: Starship y el inicio de una nueva era de exploración espacial”, *El Nuevo Día*, Apr 2023, [Article link](#).

Córdova Rosado, R. “Universos paralelos de dos telescopios boricuas”, *El Nuevo Día*, Oct 2022, [Article link](#).

Córdova Rosado, R. “El telescopio espacial James Webb y el futuro de la astronomía puertorriqueña”, *El Nuevo Día*, Jul 2022, [Article link](#).

SERVICE APPOINTMENTS

Princeton American Indian & Indigenous Studies Working Group, Princeton University

Organizing Board	2023 – Present
Vice President/Treasurer	2024 – Present
Native Graduate Students of Princeton , Princeton University	
Organizing Board	2022 – Present
President	2024 – Present
Public Observing Program , Princeton Department of Astrophysical Sciences	
Telescope Trainer	2022 – Present
Co-Coordinator	2022
National Program Subcommittee , Order of the Arrow, Boy Scouts of America	
Board Member	2021 – Present
National Scholarship Committee , 2023 National Jamboree, Boy Scouts of America	
Director	2022 – 2023
Climate Committee , Princeton Department of Astrophysical Sciences	
Graduate Student Representative	2021 – 2023
Graduate Student Committee , Princeton Department of Astrophysical Sciences	
Graduate Student Representative	2020 – 2022
Advisory Group to the Diversity and Inclusion National Committee , Boy Scouts of America	
Founding Member	2020 – 2023
Camp Guajataka Summer Program , San Sebastián, Puerto Rico	
Archaeology Instructor	2020
Gates Scholars' Sustainability Working Group , University of Cambridge	
External Action Group Leader	2019 – 2020
Student Astronomers of Harvard-Radcliffe (STahr) , Harvard University	
President & Observatory Director	2018 – 2019
Harvard College Astrophysical Society , Harvard University	
Co-President	2017 – 2018
Harvard Archery Team , Harvard University	
President/ USA Archery Level 2 Instructor	2016 – 2018

PRESENTATIONS ACADEMIC ENGAGEMENTS

Oral Presentation

Asterisms: The Relations among their Verbal, Numerical, and Visual Representations Across Cultures in Research and Public Outreach, Institute for Advanced Study, Princeton Feb 2024

Panel Discussion after screening of *Killers of the Flower Moon*

Princeton University Nov 2023

Gravity Group Presentation

Department of Physics, Princeton University Oct 2023

Oral Presentation

Seminar in honor of HSH, The Hereditary Prince Alois of Liechtenstein & HRH, The Hereditary Princess Sophie of Liechtenstein, LISD, Princeton University Sep 2023

CMB Group Meeting Presentation

Astronomy Department, Harvard University Jul 2023

Oral Presentation

From the Galaxy to the Big Bang Conference, Bayuls Sur Mer, France Jun 2023

Oral Presentation

CMB Foregrounds and Galactic Science Workshop, Tenerife, Spain Dec 2022

Panel Discussion with Osage Nation Principal Chief, Geoffrey Standing Bear

Department of Anthropology, Princeton University Nov 2022

Collaboration Meeting Presentation <i>Atacama Cosmology Telescope Collaboration</i>	Oct 2022
Collaboration Meeting Presentation <i>Atacama Cosmology Telescope Collaboration</i>	Jul 2021
Dissertation Presentation <i>Department of Archaeology, University of Cambridge</i>	Mar 2020
Senior Thesis Presentation <i>Center for Astrophysics Harvard & Smithsonian</i>	Apr 2019
JPL Astrophysics Summer Intern Colloquium <i>Jet Propulsion Laboratory, California Institute of Technology</i>	Aug 2018
Astrophysics Laboratory Research Presentation <i>Center for Astrophysics Harvard & Smithsonian</i>	Apr 2018
Junior Thesis Presentation <i>Center for Astrophysics Harvard & Smithsonian</i>	Dec 2017
GUEST LECTURES	
Solstices and Hilltops: A Brief Overview of Indigenous Astronomy <i>Native American History (HIS 271 / AMS 271), Princeton University</i>	Sep 2023
PUBLIC TALKS	
Ongoing series on Astronomy, Physics, and Archaeoastronomy <i>Daposka Ahnkodapi (Our School), Osage Nation, Pawhuska, OK</i> See here for recent review article.	2022 – Present
The History of the Universe, as Told by Dark Matter <i>TEDxMahwah, Mahwah, New Jersey</i>	Aug 2024
From Puerto Rico to the Study of Quasars <i>Hispanics Inspiring Students' Performance and Achievement (HISPA) Kick-off Event</i>	Sep 2023
Escuchando el vacío: La búsqueda de vida extraterrestre y Arecibo <i>Arecibo Observatory, Puerto Rico</i>	Oct 2022
Los agujeros negros: qué son y cómo los observamos <i>Arecibo Observatory, Puerto Rico</i>	May 2022
The History of the Universe <i>STEAM Teaching at Arecibo Academy, Arecibo Observatory, Puerto Rico</i>	Apr 2022
Astronomía y la Arqueoastronomía <i>STEAM Teaching at Arecibo Academy, Arecibo Observatory, Puerto Rico</i>	Mar 2021 & 2022, Oct 2022
Cosmología y Agujeros Negros <i>Colegio San Antonio & Colegio San Ignacio, San Juan, Puerto Rico</i>	Aug 2022
La Historia de Día de los Muertos <i>Day of the Dead Event, Office of Access, Diversity & Inclusion, Princeton University</i>	Nov 2021
Astronomía como Carrera Científica <i>Centro CRECE, San Juan, Puerto Rico</i>	Nov 2021
Student Observing Night and Presentation <i>Forbes College, Princeton University</i>	Sep 2021
Cosmología Moderna <i>STEAM Teaching at Arecibo (STAR) Academy, Arecibo Observatory, Puerto Rico</i>	May 2021
Archaeoastronomy of the American Southwest <i>Internal Symposium, Sidney Sussex College, Cambridge, UK</i>	Feb 2020
The Archaeoastronomy of Chaco Canyon <i>Internal Symposium, Gates Cambridge Scholars, University of Cambridge</i>	Feb 2020
La Primera Sombra de un Hoyo Negro <i>Colegio San Ignacio de Loyola, San Juan, Puerto Rico</i>	Sep 2019

Public Observing Night with PBHA Mission Hill Afterschool Program

Loomis-Michael Observatory, Harvard University

Mar 2019

Eclipse Solar 2017

Colegio San Ignacio de Loyola, San Juan, Puerto Rico

Aug 2017

LANGUAGES

Spanish & English: Bilingual.

Osage: Beginner-Intermediate.

Ancient Greek: Intermediate (reading); basic (speaking, writing).

SKILLS

Python, Linux/Unix, \LaTeX , MATLAB, Mathematica, C, Adobe Lightroom, American Mountain Guide Association Certified Climbing Instructor