


# Rodrigo E. L. Córdova Rosado

Department of Astrophysical Sciences, Princeton University, 4 Ivy Lane, Princeton, NJ, 08540  
rodrigoc@princeton.edu  rodelcr.github.io

Full Curriculum Vitae available [here](#).

**PUBLICATIONS** 3 First-author publications (2 in review), 11 Published or Submitted publications  
(10 Collaboration papers – 2 First author, 4 Significant contributions, 4 Editing contributions)  
3 First-author publications in preparation

A regularly updated list of Astronomy and Physics publications can be found [here](#).

## PAPERS

**Córdova Rosado, R.**, Santini, L. M., “The Solstitial Axis: Solar Alignments in Ancient Mesoamerica”, *Submitted to the Journal of Archaeological Science*.

**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*.

Luo, Y., **et al.**, “The Merian survey: design, construction, and characterization of a filter set optimized to find dwarf galaxies and measure their dark matter halo properties with weak lensing”, *Monthly Notices of the Royal Astronomical Society*, Mar 2024. DOI: [10.1093/mnras/stae925](https://doi.org/10.1093/mnras/stae925)

Coulton, W., **et al.**, “Atacama Cosmology Telescope: High-resolution component-separated maps across one third of the sky”, *Physical Review Letters D*, Mar 2024. DOI: [10.1103/PhysRevD.109.063530](https://doi.org/10.1103/PhysRevD.109.063530)

Madhavacheril, M. S., **et al.**, “The Atacama Cosmology Telescope: DR6 Gravitational Lensing Map and Cosmological Parameters”, *The Astrophysical Journal*, Feb 2024. DOI: [10.3847/1538-4357/acff5f](https://doi.org/10.3847/1538-4357/acff5f)

Qu, F. J., **et al.**, “The Atacama Cosmology Telescope: A Measurement of the DR6 CMB Lensing Power Spectrum and Its Implications for Structure Growth”, *The Astrophysical Journal*, Feb 2024. DOI: [10.3847/1538-4357/acfe06](https://doi.org/10.3847/1538-4357/acfe06)

**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)

Kim, Jae-Young **et al.**, “Event Horizon Telescope imaging of the archetypal blazar 3C 279 at an extreme 20 microarcsecond resolution ,” *The Astrophysical Journal Letters* Aug 2020. DOI: [10.1051/0004-6361/202037493](https://doi.org/10.1051/0004-6361/202037493)

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)

## PAPERS 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.”

**Córdova Rosado, R.**, “Robust Statistical Analysis of Ancestral Archaeoastronomical Alignments at Chaco Canyon.”

## CONFERENCE POSTERS

**Córdova Rosado, R.**, Goulding, A., Greene, J., et al.; “Stronger Clustering in Unobscured AGN with an HSC  $\times$  WISE Selection” at the *2024 Ford Fellows Conference*, Washington, D.C., USA, Jun 2024.

**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>

Schumer, C., **et al.**, “Harvard Observing Project monitoring of Boyajian’s Star (KIC 8462852),” at the *229th American Astronomical Society Meeting*, Grapevine, TX, USA, Jan 2017.

Espinell, J., **et al.**, “Recent Observations of AG Pegasi’s Latest Outburst Phase by Harvard Observing Project,” at the *229th American Astronomical Society Grapevine, TX, USA, Jan 2017*.

#### DATA RELEASES

Bieryla, A.; Carmichael, T; Challis, P.; **Cordova, R.**; Finkbeiner, D.; Gilchrist, R.; Komorowski, E.; Alonso-Monsalve, E. “spectral ID of supernova AT2017cfc ” 2017.

<http://www.astronomerstelegam.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](#).