

**ARITRA CHAKRABARTY****Data Observatory**

Eliodoro Yáñez 2990, Providencia  
Santiago, Chile

✉ aritra.astrophysics.at@gmail.com

☎ +56 933446680

🌐 <https://arcunique.github.io>

🔗 [github.com/arcunique](https://github.com/arcunique)

in [aritra-chakrabarty-60149077](#)

**Current Position****Postdoctoral Fellow**

Oct 2022 - Present

Data Observatory (DO), Santiago, Chile &  
Universidad Adolfo Ibanez (UAI), Santiago, Chile

**Education**

- **Ph. D. in Astronomy** 2016-2022  
Indian Institute of Astrophysics (IIA), Bengaluru, India &  
University of Calcutta (CU), Kolkata, India
- **M. Tech in Astronomical Instrumentation** 2014-2016  
Indian Institute of Astrophysics (IIA), Bengaluru, India &  
University of Calcutta (CU), Kolkata, India  
**Supervisor:** Sujan Sengupta
- **B. E. in Electrical Engineering** 2010-2014  
Jadavpur University (JU), Kolkata, India

**Publications (6 First Author)**

- **Chakrabarty, A., Mulders, G. D. 2023**, “Where are the Water Worlds? Identifying the Exo-water-worlds Using Models of Planet Formation and Atmospheric Evolution”, *ApJ*, Submitted.
- **Chakrabarty, A., Sengupta, S., Marley M. S., 2023**, “New Grids of Models for Polarization of Cloudy Brown Dwarfs”, in preparation.
- **Saha, S., Chakrabarty, A., Sengupta, S., 2023**, “Detection and Characterization of Habitable Exomoons in the JWST Era”, *ApJ*, Submitted.
- **Singla, M., Chakrabarty, A., Sengupta, S. 2023**, “Effect of Multiple Scattering on the Transmission Spectra and the Polarization Phase Curves for Earth-like Exoplanets”, *ApJ*, 944, 155.
- **Chakrabarty, A., Sengupta, S., Marley M. S., 2022**, “Polarization of Rotationally Oblate Self-Luminous Exoplanets with Anisotropic Atmospheres”, *ApJ*, 927, 51.

- **Chakrabarty, A., Sengupta, S., 2021**, “Generic Models for Disk-Resolved and Disk-Integrated Phase Dependent Linear Polarization of Light Reflected from Exoplanets”, [ApJ](#), 917, 83.
- **Saha, S., Chakrabarty, A., Sengupta, S., 2021**, “Multi-Band Transit Follow-up Observations of Five Hot Jupiters with Critical Noise Treatments: Improved Physical Properties”, [AJ](#), 162, 18.
- **Chakrabarty, A., Sengupta, S., 2020**, “Effects of Thermal Emission on the Transmission of Spectra of Hot Jupiters”, [ApJ](#), 898, 89.
- **Sengupta, S., Chakrabarty, A., Tinetti, G., 2020**, “Optical Transmission Spectra of Hot Jupiters: Effects of Scattering”, [ApJ](#), 889, 181.
- **Chakrabarty, A., Sengupta, S., 2019**, “Precise Photometric Transit Follow-up Observations of Five Close-in Exoplanets: Update on Their Physical Properties”, [AJ](#), 158, 39.

**Total Citations:** 65, **H-index:** 4. Details can be found [here](#).

## Talks and Posters

- GMT Meeting, poster, Washington D. C., USA Sep 2023
- EPL, Carnegie Institution for Science, invited seminar, Washington D. C., USA Sep 2023
- Other Worlds Laboratory (OWL) Summer Program, contribute talk, CA, USA Jul 2023
- University of California, Santa Cruz, invited seminar, CA, USA Feb 2023
- Alien Earths All Hands Meeting, contributed talk, AZ, USA Feb 2023
- physical research laboratory, invited seminar (virtual), Ahmedabad, India Jan 2023
- NISER, invited seminar (virtual), Bhubaneswar, India Mar 2022
- 40<sup>th</sup> Annual Meeting of ASI, contributed talk (virtual), IIT Indore, India Mar 2022
- Plato Atmospheres Workshop, contributed talk (virtual) Dec 2021
- SEEC Symposium, contributed talk, NASA GSFC, MD, USA Nov 2019
- Massachusetts Institute of Technology, invited seminar, MA, USA Oct 2019
- 37<sup>th</sup> Annual Meeting of ASI, contributed talk, Bengaluru, India Feb 2019
- International Symposium on Exoplanets, invited talk, Bengaluru, India Jan 2019
- University College London, invited seminar, London, UK Apr 2018
- 36<sup>th</sup> Annual Meeting of ASI, poster, Jaipur, India Feb 2018

## Mentorship Experience

- Tutored students at hands-on session on exoplanets  
IIA summer school, Bengaluru, India Jul 2021
- Instructed at the hands-on session on Exoplanets  
Astro-workshop, Indian Institute of Science, Bengaluru, India Oct 2020
- Co-guided undergraduate project students  
Transit photometric observation of exoplanets using Indian Telescopes Feb-May 2018

## Talks and Posters

- Member of outreach committee of IIA 2015-2022
- Member of the student chapter of SPIE at University of Calcutta 2014-2015

## Other Experience

- PI and Co-I: IIA Observation Cycles 2017-2022  
2m H.C. Telescope (IAO, Hanle), 1.3m J.C.B. Telescope (VBO, Kavalur)
- ISTRAC, Indian Space Research Organisation (ISRO), Bengaluru, India Feb-Jul 2018  
M. Tech project: Design and testing of an IR Linear Detector Array (LDA)  
based detector setup for solar observation at NIR wavelengths

## Scholarship

- Scholarship for B.E. studies by Government of India, MHRD 2010-2014  
Scheme of Scholarship for College and University Students

## Press Coverage

- DST.gov.in: "[Indian Astronomers find new method to study environment of extrasolar planets using polarisation of light](#)" 2021