

# Beatriz Campos Estrada

📍 Max Planck Institute for Astronomy, Heidelberg, Germany    ✉ becampos@mpia.de

🔗 beatrizestrada.github.io

## Appointments

---

<b>Postdoctoral Researcher</b> <i>APEX department, Max Planck Institute for Astronomy (Heidelberg, DE)</i>	Nov 2024 – present
<b>Early Career Researcher</b> <i>CHAMELEON Marie Curie Innovative Training Network</i> Network funded by the European Union for European Joint Doctorates	Sept 2020 – Oct 2024
<b>Undergraduate Research Opportunity Programme</b> <i>Imperial College London</i>	June 2018 – Aug 2018

## Education

---

### Joint Doctorate Degree:

**Niels Bohr Institute, University of Copenhagen, Denmark**    Sept 2020 – Oct 2024  
*PhD in Astrophysics & Planetary Science*

**Graz University of Technology, Austria**    Sept 2020 – Oct 2024  
*Doktor der Naturwissenschaften (Dr. rer. nat.)*

PhD thesis: [From dusty-tails to cloudy skies](#) 🔗

**Imperial College London, United Kingdom**    Oct 2016 – Aug 2020  
*MSci Physics*

## Publications

---

7. Oliveros-Gomez, N., et al. *inc. Campos Estrada, B.*, 2025, [arXiv:2511.15667](#) (ApJ accepted) 🔗  
*The JWST weather report from the nearest brown dwarfs III: Heterogeneous clouds and Thermochemical instabilities as possible drivers of WISE 1049AB's spectroscopic variability*
6. Tusay, N., et al. *inc. Campos Estrada, B.*, 2025, [ApJL 987 L6](#) 🔗  
*A Disintegrating Rocky World Shrouded in Dust and Gas: Mid-infrared Observations of K2-22 b Using JWST*
5. *Campos Estrada, B.*, Lewis, D. A., et al., 2025, [A&A 694 A275](#) 🔗  
*The MSG model for cloudy substellar atmospheres: A grid of self-consistent substellar atmosphere models with microphysical cloud formation*
4. Jørgensen, U. G., Amadio, F., *Campos Estrada, B.*, et al., 2024, [A&A 690 A127](#) 🔗  
*A grid of self-consistent MSG cool stellar, sub-stellar, and exoplanetary model atmospheres*
3. *Campos Estrada, B.*, Owen, J.E., Jankovic, M., et al., 2024, [MNRAS 428 1249](#) 🔗  
*On the likely magnesium-iron silicate dusty-tails of catastrophically evaporating exoplanets*

2. Van Eylen, V., et al. *inc. Campos Estrada, B.*, 2021, [MNRAS 507 2154](#) [🔗](#)

*Masses and compositions of three small planets orbiting the nearby M dwarf L231-32 (TOI-270) and the M dwarf radius valley*

1. Owen, J. E. & *Campos Estrada, B.*, 2020, [MNRAS 491 5287](#) [🔗](#)

*Testing exoplanet evaporation with multi-transiting systems*

## Open Source Software Development and Contributions

---

[EvapMass](#) [🔗](#) - Atmospheric escape theory tester. Role: Main Developer

[petitRADTRANS](#) [🔗](#) - Exoplanet spectra for everyone! Role: Activate Developer

## Student supervision

---

**Miriam Varding**, MSc Thesis, University of Heidelberg

Apr 2025 - present

*Planets in Peril: Spectral and Dynamical Perspectives on Disintegrating Rocky Exoplanets*

**Nkateko Baloi**, MPIA Summer Internship

Jul 2025 - Sept 2025

*Clouds in Substellar Atmospheres: Impact of Particle Mixing and Size Distributions*

## Invited and contributed talks/colloquia

---

**Note ★ indicates invited.**

★ Königstuhl Colloquium, Max Planck Institute for Astronomy	Nov 2024
★ Center for Space and Habitability Colloquium, University of Bern	Nov 2023
★ UCLA planet formation seminar	Aug 2023
★ Exoclimes Connect - University of Leeds astrophysics seminar	Jul 2023
Graz - Vienna Exoplanet Scientist Meeting II	May 2023
Exoplanet Modeling and Analysis Center Workshop, online <a href="#">recording</a> <a href="#">🔗</a>	Feb 2023
Rocky Worlds II, University of Oxford	Jul 2022
★ Imperial College London star and planet formation group meeting	Mar 2022
★ Danish Technical University exoplanets group seminar	Sept 2021
★ University College London's MSSL imaging group seminar	Apr 2021

## Posters

---

Exoclimes VII, Montréal	Jul 2025
Are we a unique species on a unique planet?, Copenhagen	Aug 2024
Exoclimes VI, Exeter	July 2023
Exoplanets IV, Las Vegas	May 2022
Annual Danish Astronomy Meeting	Jun 2022, 2021
Space Telescope Science Institute Symposium, online	Apr 2021
Exoplanets III, online	Jun 2020

## Workshops

---

<b>Gender and Diversity Workshop</b>	Nov 2023
Provided by the Austrian Academy of Sciences with Mag. Roswitha Hofman	
<b>PLATO workshop on 3D climate and clouds</b>	Sept 2023
Planning science goals ahead of the launch of PLATO	
<b>Sagan Exoplanet Summer Workshop</b>	Jul 2023
Characterizing Exoplanet Atmospheres: The Next Twenty Years	
<b>Cloud Academy III</b>	Mar 2023
Cloud Formation and Properties in Extrasolar Planets	

## Skills

---

<b>Computational</b>	Proficient in Fortran, Python and C++
<b>Software &amp; Tools</b>	Git, LaTeX
<b>Languages</b>	Portuguese (mother tongue), English (proficient), Spanish (conversational)


## Roles of responsibility

---

StarXiv Journal Club co-organiser, Niels Bohr Institute	Jan 2021 - Jan 2022
Imperial College Alternative Music Society Secretary (elected)	Oct 2018 - Jun 2020
Imperial College Physics Society Secretary (elected)	Oct 2018 - Jun 2019
Physics students year representative (elected), Imperial College London	Oct 2017 - Jun 2018

## Outreach

---

<a href="#">Exploring Exoplanets</a>  - Exhibition Facilitator	Aug 2024
Skype a Scientist collaborator	Sept 2022 - Oct 2023
Astronomy on Tap Copenhagen Speaker	Nov 2022