

Erik Andreas Meier Valdés

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<https://erikmeier18.github.io/about/>

EDUCATION

09/2020 – Present

PhD in Physics

University of Bern, Switzerland

- Exoplanetary science: High-precision photometry using CHEOPS data.
- Advisor: Prof. Dr. Brice-Olivier Demory.

09/2018 – 05/2020

MSc in Experimental physics, Applied physics and Astronomy

University of Bern, Switzerland

- Master project in Exoplanetary science: Using infrared satellite imagery to compute near real-time precipitable water vapour above astronomical sites.
- Thesis advisor: Prof. Dr. Brice-Olivier Demory.

08/2013 – 01/2018

BSc in Physics

Benemérita Universidad Autónoma de Puebla, Mexico

- Degree focused on theoretical physics.

REFEREED PUBLICATIONS

First-author

Investigating the visible phase-curve variability of 55 Cnc e

Meier Valdés, E.A.; Morris, B.M.; Demory, B.-O.; Brandeker, A.; Kitzmann, D.; Benz, W.; Deline, A.; Florén, H.-G.; Sousa, S.G.; Bourrier, V.; Singh, V.; Heng, K.; Strugarek, A.; Bower, D.J.; Jäggi, N.; Carone, L.; Lendl, M.; Jones, K.; Oza, A.V.; {...}

- 2023, *Astronomy & Astrophysics* V677, A112

Weak evidence for variable occultation depth of 55 Cnc e with TESS

Meier Valdés, E.A.; Morris, B.M.; Wells, R.D.; Schanche, N. and Demory, B.-O.

- 2022, *Astronomy & Astrophysics* V663, A95

Monitoring precipitable water vapour in near real-time to correct near-infrared observations using satellite remote sensing

Meier Valdés, E.A.; Morris, B.M. and Demory, B.-O.

- 2021, *Astronomy & Astrophysics* V649, A132

Co-author

55 Cancri e's occultation captured with CHEOPS

Demory, B.-O. ; Sulis, S. ; **Meier Valdés, E.** ; Delrez, L. ; Brandeker, A. ; Billot, N. ; Fortier, A. ; Hoyer, S. ; Sousa, S. G. ; Heng, K. ; Lendl, M. ; Krenn, A. ; Morris, B. M. ; Patel, J. A. ; {...}

- 2023, *Astronomy & Astrophysics* V669, A64

CHEOPS finds KELT-1b darker than expected in visible light: Discrepancy between the CHEOPS and TESS eclipse depths

Parviainen, H.; Wilson, T. G.; Lendl, M.; Kitzmann, D.; Pallé, E.; Serrano, L. M.; **Meier Valdés, E.**; Benz, W.; Deline, A.; Ehrenreich, D.; Guterman, P.; Heng, K.; Demangeon, O. D. S.; Bonfanti, A.; Salmon, S.; Singh, V.; Santos, N. C.; Sousa, S. G.; {...}

- 2022, *Astronomy & Astrophysics* V668, A93

RESEARCH PROJECTS

- NASA James Webb Space Telescope programmes: Co-I (x5)
ID 3730 (PI: Dr. Diamond-Lowe)
ID 4126 (PI: Dr. Fisher)
ID 4195 (PI: Dr. Fisher)
ID 3969 (PI: Dr. Espinoza)
ID 3279 (PI: Dr. Hoeijmakers)
- Member: ESA CHEOPS atmospheric characterisation working group.
- Member: SNF NCCR *PlanetS*

TALKS & POSTER PRESENTATION

- Max Planck Institute for Astronomy, Heidelberg, Germany. Seminar talk. 11/2023
- Towards Other Earths 3, Porto, Portugal. Talk. 07/2023
- Exoclimes VI, University of Exeter, UK. Poster. 06/2023
- University of Leeds, Leeds, UK. Seminar talk. 06/2023
- Institut de Mathématiques de Bourgogne, Dijon, France. Seminar talk. 06/2023
- PlanetS JURA IV, Leissigen, Switzerland. Talk. 05/2023
- Observatoire de Genève, Switzerland. Seminar talk. 01/2023
- Rocky Worlds II, University of Oxford, UK. Poster. 08/2022
- Max Planck Institute for Astronomy, Heidelberg, Germany. Online talk. 06/2022

WORK EXPERIENCE

09/2020 – Present

Teaching assistant

Physics I and II for biology, geology and medicine students; Physics lab course for veterinary and biology students; Advanced statistical course; Physics lab course for physicists.

University of Bern, Switzerland

03/2020 – Present

Teaching assistant, robotics course for children

Chlini Einsteins GmbH, Bern, Switzerland

02/2020 – Present

Tutor in physics and mathematics

Elementary school to bachelor level.

TEACHY GmbH, Bern, Switzerland

08/2013 – 08/2018

Tutor in physics and mathematics for lower and upper secondary school students

Puebla, Mexico

INSTITUTIONAL RESPONSIBILITIES

- Co-founder: Exoplanet journal club, University of Bern, 2023.

SKILLS

Languages

Spanish – Native language

German – Fluent

English – Fluent

French – Basic

Programming

Python – Very good

R – Basic

SCHOLARSHIPS

01/10/2018 – 31/12/2019

MSc academic scholarship

CONACYT (Mexican National Council for Science and Technology)

Funding: EUR 16'350

ADDITIONAL INFORMATION

- 22/06/2023 – 24/06/2023* **ExoSLAM summer school**
University of Exeter, Exeter, UK
- 21/07/2021 – 25/07/2021* **Summer school "Astrobiology introductory course 2021" attendance**
Online. Le Teich, France
- 29/01/2017 – 30/01/2017* **Winter school "The quantum universe" attendance**
BUAP, Puebla, Mexico
- 12/07/2016 – 17/07/2016* **VI Mathematics summer school attendance**
UNAM campus Juriquilla, Querétaro, Mexico