

Erik Andreas Meier Valdés

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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. Relevant courses: Mechanics, Electrodynamics, Mathematical methods of physics, Quantum mechanics, General relativity, Thermodynamics, Statistical mechanics, Selected Topics on classical mechanics.

REFEREED PUBLICATIONS

First-author

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, A&A 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, A&A 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. ; {...}

- Accepted 13 October 2022, A&A

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.; {...}

- Accepted 06 September 2022, A&A

INVITED TALKS & POSTER PRESENTATION

- Institut de Mathématiques de Bourgogne, Dijon, France. Seminar talk. 06/2023
- PlanetS JURA IV, Leissigen, Switzerland. Presentation. 05/2023
- Observatoire de Genève, Switzerland. Seminar talk. 01/2023
- Rocky Worlds II, Oxford University, UK. Poster presentation. 08/2022
- Max Planck Institute for Astronomy, Heidelberg, Germany. Online talk. 06/2022

WORK EXPERIENCE

09/2020 – Present

Teaching assistant

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

ADDITIONAL RESEARCH EXPERIENCE

06/2016 – 11/2016

Research assistant within the project "Study of static and dynamic properties of complex systems"

Benemérita Universidad Autónoma de Puebla, Mexico
• Principal researcher: Dr. Jorge Velázquez Castro

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

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