

MERLE SCHRADER

Email ◇ GitHub ◇ ORCID ◇ Website

EDUCATION

Trinity College Dublin <i>PhD Candidate in Astrophysics</i> Dr. Johanna Vos' "Weather on other Worlds" group	Dublin, Ireland 2024 - present
Trinity College Dublin <i>B.A., Physics with moderatorship in Astrophysics</i> Graduated with First Class Honours (I)	Dublin, Ireland 2020 - 2024

OTHER RESEARCH EXPERIENCE

Trinity College Dublin <i>Capstone Research Project</i> "Clouds and Aurorae on Isolated Worlds"; supervised by Dr. Johanna Vos	Dublin, Ireland 2023 - 2024
Trinity College Dublin <i>Summer Research Project</i> Broad-wavelength near-infrared transmission spectroscopy using JWST NIRSpec's PRISM Mode; supervised by Dr. Neale Gibson	Dublin, Ireland Summer 2023
TELUS International <i>Translator and Transcriber (English/German)</i> Articulate complex ideas with precision, enhancing scientific communication skills	Remote 2020 - 2022
Karl-Schwarzschild-Observatorium, Thüringer Landessternwarte <i>Student Internship</i> Data reduction for CARMENES survey	Tautenburg, Germany Summer 2018

SELECTED GRANTS & AWARDS

Trinity Research Doctorate Award - Trinity College Dublin	2024
Walton Prize in Physics - Trinity College Dublin	2021

OUTREACH & TEACHING EXPERIENCE

Seminar Speaker , Universität Bielefeld "Intro to Particle Physics" - talk at legal tech seminar	2025
Teaching Assistant , Trinity College Dublin Courses: 2nd & 3rd year practical labs, 3rd year computational labs	2024 - present
Student 2 Student Mentoring , Trinity College Dublin Introducing physical sciences first years to the physics department at TCD	2021 - 2022
International Baccalaureate (IB) Tutor , Freelance Private Tutor for International Baccalaureate courses: Higher Level Physics & Higher Level Maths	2020 - 2023

AWARDED TELESCOPE TIME

JWST Cycle 4: Program 8155 (43.3 hrs), Co-PI	2025
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SIGNIFICANT CONTRIBUTION PUBLICATIONS

- Disentangling Atmospheric Variability in SIMP 0136 using Principal Component Analysis**
Schrader, M.; Kestell, J.; Vos, J. M.; Nasedkin, E.; McCarthy, A. M.; Biller, B. A.; Whiteford, N.; Zhou, Y. (*in prep*) .
- Mapping auroral heating and patchy cloud coverage of the variable brown dwarf SIMP J0136 with time-resolved atmospheric retrievals.**
Nasedkin, E.; Schrader, M.; Vos, J. M.; McCarthy, A.; Whiteford, N. (*in prep*) .