

Lavender Elle Hanson

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| Education | Ph.D., Earth and Planetary Science , Johns Hopkins Univ. Advisor: Darryn D. Waugh | 2020–2025 (expected) |
| | M.S., Atmospheric Science & Meteorology , Penn State Univ. Advisor: Jerry Y. Harrington | 2013–2018 |
| | B.A., Physics & Chemistry , Luther College | 2009–2013 |
| Research Experience | Modeling and image analysis of Titan ice clouds Johns Hopkins University advised by Darryn D. Waugh | 2020–2025 |
| | Laboratory spectroscopy of Titan cloud ices NASA Goddard Space Flight Center/University of Maryland advised by Carrie M. Anderson | 2020 |
| | Martian cloud and atmospheric dynamics using Mars Reconnaissance Orbiter imagery NASA Goddard Space Flight Center/University of Maryland advised by Scott Guzewich | 2019 |
| Professional Society Membership | American Astronomical Society, Division of Planetary Science | 2023–present |
| | American Geophysical Union | 2018–present |
| Teaching | Guided Tour: The Planets, TA | Spring 2024 |
| | Guided Tour: The Planets, TA | Spring 2023 |
| | Principles of Atmospheric Measurement, co-instructor | Spring 2017 |
| | Radiation and Climate, TA | Fall 2018 |
| | Atmospheric Thermodynamics, TA | Fall 2014 |
| Service | Newsletter Contributor and Editor, EPS | 2024 |
| | Social Committee organizer, EPS | 2020–2024 |
| | Johns Hopkins Trans Awareness Task Force | 2023–2024 |

Funding NASA FINESST: *Mixed-species clouds in Titan's polar stratosphere* (future investigator, PI: Darryn Waugh). 2021–2024

- Publications**
1. **Lavender E Hanson**, Darryn Waugh, Erika Barth, and Carrie M. Anderson, 2024: Descent of Titan's South Polar Cloud, *Geosci Res Lett* (in prep).
 2. **Lavender E Hanson**, Darryn Waugh, Erika Barth, and Carrie M. Anderson, 2023: Investigation of Titan's south polar HCN cloud during southern fall using microphysical modeling, *Planet Sci J*, 4, 237. doi:[10.3847/PSJ/ad0837](https://doi.org/10.3847/PSJ/ad0837)
 3. Gwenore F Pokrifka, AM Moyle, **Lavender E Hanson**, and Jerry Y Harrington, 2020: Estimating Surface Attachment Kinetic and Growth Transition Influences on Vapor-Grown Ice Crystals, *J Atmos Sci*, 77, 2393. doi:[10.1175/jas-d-19-0303.1](https://doi.org/10.1175/jas-d-19-0303.1)
 4. Jerry Y Harrington, Alfred Moyle, **Lavender E Hanson**, Hugh Morrison, 2019: On Calculating Deposition Coefficients and Aspect-Ratio Evolution in Approximate Models of Ice Crystal Vapor Growth, *J Atmos Sci*, 76, 1609. doi:[10.1175/jas-d-18-0319.1](https://doi.org/10.1175/jas-d-18-0319.1)
 5. Alexander Harrison, Alfred M Moyle, **Hanson**, Jerry Y Harrington, 2016: Levitation diffusion chamber measurements of the mass growth of small ice crystals from vapor, *J Atmos Sci*, 73, 2743-2758. doi:[10.1175/JAS-D-15-0234.1](https://doi.org/10.1175/JAS-D-15-0234.1)

- Conference presentations**
1. Lavender E Hanson, Darryn Waugh, Erika Barth, and Carrie M. Anderson. 2023: Investigating the evolution of Titan's high altitude south polar HCN cloud (talk). *AAS/DPS 2023*, 208.04, San Antonio, TX.
 2. Lavender E Hanson, Darryn Waugh, Erika Barth, and Carrie M. Anderson. 2023: Modeling the fall high altitude south polar HCN cloud (talk). *Titan Through Time 6*, Paris.
 3. Lavender E Hanson, Scott Guzewich, 2019: Orographic clouds in the Mars Arcadia province (poster). *AGU Fall Meeting 2019*, P41B-3405.
 4. Lavender E Hanson, Scott Guzewich, 2019: Using Machine Learning to Identify Clouds in Mars Daily Global Maps (poster), *Ninth International Conference on Mars*, Pasadena, CA.
 5. Hanson, Alfred Moyle, Jerry Harrington, 2016: Measurements of vapor growth and sublimation of individually levitated ice particles below -30°C (talk), *17th International Conference on Clouds & Precipitation*, Manchester, UK, S1.14.

Updated: June 19, 2024