

Dany Waller

Curriculum Vitae

+1 (859) 533-7517

dany.waller@jhuapl.edu

danywaller.github.io

EDUCATION

- + 05/2026 (expected) – D.Eng. Materials Science & Engineering, Johns Hopkins University
- + 05/2022 – M.S. Applied Physics (Honors), Johns Hopkins University
- + 05/2019 – B.S. Mathematics, University of Kentucky
- + 05/2019 – B.A. Physics, University of Kentucky

EMPLOYMENT

- + 09/2021 - Present – Associate Professional Staff, JHU/APL, Space Exploration Sector Science Analysis & Applications Group (SES-SRN)
- + 09/2020 - 09/2021 – Graduate Research Assistant, JHU/APL, Space Exploration Sector Planetary Exploration Group (SES-SRE)
- + 08/2020 - 09/2021 – Scientific Analyst II, NASA Goddard Space Flight Center Geodesy and Geophysics Laboratory (61A), Science Systems & Applications, Inc.
- + 05/2019 - 08/2020 – Farish Planetarium Director and Earth & Space Science Program Coordinator, Living Arts & Science Center

RESEARCH PROJECTS

- + 09/2022 - Present – *Lunar Vertex Co-Investigator*. PI: Dr. David Blewett, JHU/APL.
- + 05/2022 - Present – *Lunar Vertex Magnetometer Instrument Scientist*. Co-Is: Dr. Brian Anderson and Dr. Sarah Vines, JHU/APL.
- + 09/2021 - 11/2023 – *Instrument health monitoring software and calibration pipeline development for the Double Asteroid Redirection Test (DART) DRACO Imager*. Science Operations Center Lead: Dr. Olivier Barnouin, JHU/APL.
- + 09/2020 - 05/2022 – *Modeling magnetic anomalies and mapping related photometric and spectroscopic features on the Moon*. PI: Dr. Joshua Cahill, JHU/APL.

INVITED TALKS

- + **Waller, C.D.**, Cahill, J.T.S., Hendrix, A.R., Retherford, K.D., Stockstill-Cahill, K. (2023, December 11-15). *Space Weathering Trends in Ultraviolet Wavelengths of Lunar Swirls in Highlands and Mare* [Conference presentation]. American Geophysical Union Fall Meeting, San Francisco, CA.

+ Waller, C.D. (2022). *Solar Wind Compression of the Magnetic Anomaly at Reiner Gamma and Potential Weathering Patterns Observed in the Ultraviolet* [Colloquium]. NASA GSFC Geospace Physics Laboratory, Greenbelt, MD.

+ Waller, C.D. (2022). *Solar Wind Compression of the Magnetic Anomaly at Reiner Gamma and Potential Weathering Patterns Observed in the Ultraviolet* [Seminar]. Friends of Lunar Volatiles Meeting, virtual due to COVID-19.

AWARDS AND HONORS

+ 2022 – Special Achievement Award, JHU/APL Science Analysis & Applications Group

+ 2021 – 2nd place in NESF/ELS 2021 Student Poster Competition, NASA SSERVI

+ 2020 – 5 Sigma Physicist, American Physical Society

+ 2019 – Physics Advocacy Award, University of Kentucky Dept. of Physics & Astronomy

+ 2019 – Student Impact Award, Omicron Delta Kappa Nu Circle

+ 2019 – Outstanding Senior on *UK at the Half*, University of Kentucky

+ 2018 – High Scholarship in Physics, University of Kentucky Dept. of Physics & Astronomy

SERVICE

+ 2022 - Present – Intern Mentor, JHU/APL CIRCUIT program.

+ 2020 - 2021 – Intern Mentor, NASA Goddard Association of Postdoctoral and Early Career Scholars (NGAPS+).

+ 2020 - 2021 – SMD Bridge Program Committee Member, NASA GSFC.

+ 2018 - 2020 – Physics Policy Advocate, American Physical Society (APS).

CONFERENCES

Oral Presentations

+ **Waller, D.**, Cahill, J.T.S., Hendrix, A.R., Retherford, K.D., Stockstill-Cahill, K. (2023, October 1-6). *Space Weathering Trends in Ultraviolet Wavelengths of Lunar Swirls in Highlands and Mare*. 55th AAS Division for Planetary Science Conference, San Antonio, TX. Abstract #101.03.

+ **Waller, D.**, Cahill, J.T.S., Retherford, K.D., Hendrix, A.R. (2022, March 7-11). *Solar Wind Compression of the Magnetic Anomaly at Reiner Gamma and Potential Weathering Patterns Observed in the Ultraviolet*. 53rd Lunar and Planetary Science Conference, The Woodlands, TX. Abstract #2670.

Poster Presentations

+ **Waller, C.D.**, Vines, S.K., Anderson, B.J., Blewett, D.T., Ocasio, A.M., Cahill, J.T.S., Tikoo, S.M., Jahn, J.-M. (2023, December 11-15). *Magnetic Gradiometry and Ongoing Modeling Efforts for the Lunar Vertex Mission*. American Geophysical Union Fall Meeting, San Francisco, CA.

+ **Waller, C.D.**, Vines, S.K., Anderson, B.J., Blewett, D.T., Ocasio, A.M., Cahill, J.T.S., Tikoo, S.M., Jahn, J.-M. (2023, March 13-17). *Magnetic Gradiometry and Ongoing Modeling Efforts for the Lunar Vertex Mission*. Annual Meeting of the Lunar Exploration Analysis Group, Laurel, MD. Abstract #2903.

+ **Waller, C.D.**, Espiritu, R.C., Nair, H., Ernst, C.M., Daly, R.T., Barnouin, O.S. (2023, April 03-07). *Automated Data Processing and Image Quality Analysis for the DART DRACO Instrument*. 8th IAA Planetary Defense Conference, Vienna, Austria.

+ **Waller, C.D.**, Vines, S.K., Anderson, B.J., Blewett, D.T., Ocasio, A.M., Cahill, J.T.S., Tikoo, S.M., Jahn, J.-M. (2023, March 13-17). *Magnetic Gradiometry and Ongoing Modeling Efforts for the Lunar Vertex Mission*. 54th Lunar and Planetary Science Conference, The Woodlands, TX. Abstract #1820.

+ **Waller, C.D.**, Espiritu, R.C., Nair, H., Ernst, C.M., Daly, R.T., Barnouin, O.S. (2023, March 13-17). *Automated Data Processing and Image Quality Analysis for the DART DRACO Instrument*. 54th Lunar and Planetary Science Conference, The Woodlands, TX. Abstract #1823.

+ **Waller, D.**, Cahill, J.T.S. (2022, July 19-21). *Variegated Space Weathering Expression Classification Across Reiner Gamma in Preparation for Lunar Vertex*. NASA Exploration Science Forum, Boulder, CO. Abstract #66.

+ **Waller, D.**, Cahill, J.T.S., Meyer, H. (2022, February 17). *Modeling Temporal Variations in Solar Wind Conditions at Reiner Gamma: Preparations for Lunar Vertex*. 14th Lunar Surface Science Workshop: Heliophysics Applications Enabling and Enabled by Human Exploration of the Lunar Surface, held virtually. Abstract #1022.

+ **Waller, D.**, Cahill, J.T.S., & Wirth-Singh, A. (2021, July 20-23). *Investigation of Magnetic Fields Associated with Various Lunar Swirls Observed in The Far-Ultraviolet*. Joint NASA Exploration Science Forum & European Lunar Symposium, held virtually due to COVID-19.

SELECT PUBLICATIONS

+ **Waller, C.D.**, Espiritu, R.C., Tinsman, C., Nair, H., Ernst, C.M., Daly, R.T., Barnouin, O.S., Zinzi, A., Chabot, N., Rivkin, A., Moskovitz, N., Osip, D., Lister, T., Ryan, E., and Ryan, W. (2024, in revisions). Science Product Pipelines and Archive Architecture for the DART Mission. *Planetary Science Journal*.

+ **Waller, C.D.**, Cahill, J.T.S., Retherford, K.D., Hendrix, A.R., Allen, R.C., Vines, S.K., Meyer, H.M., Wirth-Singh, A.A. (2022). Ultraviolet and Magnetic Perspectives at Reiner Gamma and the Implications for Solar Wind Weathering. *Frontiers in Astronomy and Space Sciences*. doi:10.3389/fspas.2022.926018

+ **Waller, C.D.**, Strauss, B.E. (2022). Magnetometry. In B.M. Cudnik (Ed.), *Encyclopedia of Lunar Science* (1st ed.). Springer. doi:10.1007/978-3-319-05546-6