

Alvin Angeles

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Education

Ph.D. Physics and Space Science

August 2022 - May 2027

University of New Hampshire (UNH) Department of Physics & Astronomy, Durham, NH

- PhD Advisor: Harlan Spence

B.A. Astronomy and Astrophysics

May 2021

University of Colorado Boulder Department of Astrophysical & Planetary Science, Boulder, CO

- Minor in Space

Publications

Submitted:

Sarah A. Kovac, Amir Caspi, Daniel B. Seaton, et. al. **Alvin Angeles**, et. al. Citizen CATE 2024: Extending Totality During the 8 April 2024 Total Solar Eclipse with a Distributed Network of Community Participants. *Solar Physics*.

In Print:

Alvin J. G. Angeles, Harlan E. Spence, Charles W. Smith, Bernard J. Vasquez, Ian J. Cohen, Kevin J. Genestreti, Ruth Skoug, Savvas Raptis, Christine Gabrielse, Daniel J. Gershman, David Fischer, Christopher T. Russell, James L. Burch, Roy B. Torbert, Werner Magnes, The Correlation Function for Magnetic Field Fluctuations at Ion Dissipation Scales in the Solar Wind. *Journal of Geophysical Research: Space Physics*.

Professional Experience

Graduate Research Assistant

August 2022 - Present

University of New Hampshire Department of Physics & Astronomy Space Science Center, Durham NH

- Conducting research focused on characterizing the behaviour of solar wind turbulence at small scales at the dynamics that drive them.
- Performs data analysis on large datasets from the NASA Magnetospheric Multiscale Mission.

Solar Physics Student Research Assistant

August 2019 - August 2021

Colorado Space Grant Consortium, Boulder CO

- Science Team co-lead for the Student Thermal Energetic Activity Module (STEAM) student payload on the SouthWest Research Institute NASA Small Explorer PUNCH spacecraft mission.
- Conducted background research, preliminary analysis, and calculations for possible solar flares and background radiation that the mission would encounter.

Undergraduate Research Assistant

January 2020 - May 2020

ASTR 3400: Research Methods in Astronomy, Boulder CO

- Analyzed data for the Research and Education Collaborative Occultation Network in its search for Trans-Neptunian Objects.

Student Demosat Team Member

February 2019 - May 2019

Colorado Space Grant Consortium, Boulder CO

- Proposed, designed, built, tested, and flew balloon cubesat payload. Analyzed data post flight in mission summary report.

Scientific Service & Professional Development

NASA's Living With A Star Heliophysics Summer School 2025 August 12, 2025 - August 20, 2025
University Cooperative for Atmospheric Research, Boulder CO

AGU Space Physics and Aeronomy Student Advisory Committee Co-Chair March 2025 - Present
American Geophysical Union, Washington D.C.

SciX Heliophysics Lead Ambassador 2025-2027 Cohort March 2025 - Present
Science Explorer (SciX), Cambridge MA

NASA Review Panel Executive Secretary August 19, 2024 - August 23, 2024
National Aeronautics and Space Administration HQ Heliophysics SMD, Washington D.C.

Citizen CATE Next-Generation Experiment Team Member Site 32 February 2024 - April 2024
Southwest Research Institute, Boulder CO

Science Museum Volunteer October 2020 - February 2022
Denver Museum of Nature and Science, Denver CO

University of Colorado Boulder Space Minor Lead Ambassador September 2018 - May 2020
University of Colorado, Boulder, Boulder CO

Invited Seminars

Magnetospheric Multiscale Mission (MMS) Team Meeting October 14, 2025
Southwest Research Institute, San Antonio TX

- Title: *The Correlation Function for Magnetic Field Fluctuations at Ion Dissipation Scale in the Solar Wind.*

University of New Hampshire EOS Space Science Seminar Series November 13, 2023
University of New Hampshire Institute of Earth, Oceans and Space, Durham NH

- Title: *Investigating Magnetic Fluctuations at Dissipation Scales in the Solar Wind.*

Workshop Oral Presentations

HelioSwarm Science Team Meeting 2023 December 10, 2023
University of New Hampshire Department of Physics & Astronomy, Durham NH

Southwest Research Institute PUNCH Winter Science Meeting December 3, 2020
Colorado Space Grant Consortium, Boulder CO

Southwest Research Institute PUNCH Summer Science Workshop June 3, 2020
Colorado Space Grant Consortium, Boulder CO

Conference & Workshop Poster Presentations

UCAR Heliophysics Summer School August 2025
University Cooperation for Atmospheric Research, Boulder CO

- Title: *Investigating Anisotropies in Small-Scale Solar Wind Turbulence at 1 AU*

AGU 24 Annual Meeting: Multiscale Dynamics in Magnetized Turbulence I December 11, 2024
University of New Hampshire Department of Physics & Astronomy Space Science Center, Durham NH

- Title: *Correlation Function Analysis for Magnetic Field Fluctuations at Dissipation Scales in the Pristine Solar Wind.*

American Geophysical Union Fall 2023 Meeting: Energy Transfer and Dissipation in Space Plasmas: Kinetic to Global Scales December 12, 2023

University of New Hampshire Department of Physics & Astronomy Space Science Center, Durham NH

- Title: *Investigating the Behavior of Solar Wind Turbulence at the Electron Scale.*

American Geophysical Union Fall 2020 Meeting: High Energy Solar Investigations Through Next-Generation Remote Sensing Session **December 16, 2020**

Colorado Space Grant Consortium, Boulder CO

- Title: *The Student Thermal Activity Module (STEAM) X-ray Spectrometer for Solar Flares and Active Regions*

NASA Student Project Internal Preliminary Design Review **December 14, 2020**

Colorado Space Grant Consortium, Boulder CO

Southwest Research Institute PUNCH Winter Science Meeting **December 3, 2020**

Colorado Space Grant Consortium, Boulder CO

American Astronomical Society 51st Solar Physics Division **August 18, 2020**

Colorado Space Grant Consortium, Boulder CO

- Title: *The Student Thermal Activity Module (STEAM) X-ray Spectrometer for Solar Flares and Active Regions*

Teaching Experience

Space Foundation Space Education Specialist **October 2021 - May 2022**

The Space Foundation, Colorado Springs CO

CU Mentor Collective Peer Mentor **June 2020 - May 2021**

University of Colorado, Boulder, College of Arts and Sciences, Boulder CO

Undergraduate Teaching Assistant **January 2019 - May 2020**

University of Colorado, Boulder, Department of Aerospace Engineering Sciences, Boulder CO

ExtraCurriculars

UNH Run Club Founding Member **October 2024 - Present**

University of New Hampshire, Durham NH

UNH Archery Club Member **September 2024 - Present**

University of New Hampshire, Durham NH

UNH Eco-Reps Member **September 2024 - Present**

University of New Hampshire, Durham NH

Student Orientation Leader **May 2019 - May 2021**

University of Colorado, Boulder, New Student & Family Programs, Boulder CO

Awards

Colorado Space Grant Consortium Space Grant Scholar **September 9, 2021**

Colorado Space Grant Consortium, Boulder CO

Languages and Skills

English (native), Python, pySPEDAS, Latex, IDL, Matlab