

Education & Employment

University of Hawaii at Manoa Institute for Astronomy

Ph.D. in Astronomy, 3.94/4.0

2018 – Present Moffet Field. CA

Bay Area Environmental Research Institute

Summer 2018

Research Associate

Seattle, WA

Honolulu, HI

University of WashingtonBachelor of Science in Physics & Astronomy, 3.47/4.0 | Astronomy 3.78/4.0

2014 - 2018

UW Dean's List – SP16, WI17, SP17 | Astronomy Honors

Research

Interests: Solar & Stellar Physics – Solar Magnetic Fields – Stellar Evolution

Constraining Angular Momentum Loss Mechanisms in Subgiant Stars

Honolulu, HI

Dr. Jennifer van Saders & Dr. Jamie Tayar

Autumn 2019 - Present

o Analyzing how different angular momentum loss models fare for stars on the subgiant branch.

Electric Current Neutralization in Solar Active Regions

Honolulu, HI

Dr. Xudong Sun Winter 2019 - Present

• Studying the relationship between current distribution and flare production in solar active regions.

Lockheed Martin Solar and Astrophysics Lab

Palo Alto, CA

Dr. Sanjiv Tiwari & Dr. Bart de Pontieu

Summer 2018

 $\bullet \ \, \text{Studying the evolution of solar coronal plumes with the Interface Region Imaging Spectrograph (IRIS)}. \\$

Solar Telescope Seattle, WA

Astronomy Undergraduate Engineering Group

Autumn 2017 - Spring 2018

• Developing a solar telescope for use in introductory astronomy courses.

University of Alabama in Huntsville/NASA MSFC Heliophysics REU

Huntsville, AL Summer 2017

Dr. Sanjiv TiwariStudying the magnetic origins of solar coronal plumes.

Cataclysmic Variable Spectroscopy

Seattle, WA

Prof. Paula Szkody

Spring 2017 - Winter 2018

o Collected and reduced several Cataclysmic Variable (CV) targets and developed a CV catalog.

Little-Studied Open Clusters Project

Seattle, WA

Prof. Ana Larson

Spring 2016 - Winter 2017

• Cataloged open cluster properties and assisted in development of cluster membership analysis program.

Awards and Honors

NSF Graduate Research Fellowship Program: Honorable Mention

April 2018

American Geophysical Union (AGU) Fall Meeting Outstanding Student Paper Award:

December 2017

UW Astronomy Baer Undergraduate Prize for Excellence in Research:

Spring 2017

Teaching

Astronomy Course Teaching Assistant: TA for UH undergraduate astronomy courses

Autumn 2018 - Spring 2019

Astronomy Course Grader: Grader for undergraduate astronomy core series

Autumn 2017 - Spring 2018

Introductory Physics Tutorial Instructor: Tutorial TA for UW introductory physics series

Winter 2017 - Spring 2018

Committees

UH Institute for Astronomy Graduate Admissions Committee: Graduate Student Representative

Spring 2019

Volunteer Service and Outreach

Scientist: Skype a Scientist

Autumn 2019 - Present

Presenter: Stars Above Hawaii Stargazing Tours

Spring 2019 - Present

Author: Astrobites, astrobites.org/author/eavallone

Winter 2019 - Present

Volunteer: UH Institute for Astronomy Outreach

Secretary, President: UW League of Astronomers

Autumn 2018 - Present Autumn 2018 - Present

Pen-Pal: Letters to a Pre-Scientist

Spring 2016 – Spring 2018

Volunteer: Theodor Jacobsen Observatory

Spring 2016 – Spring 2018

Presenter: UW Planetarium, UW Mobile Planetarium

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Spring 2016 - Spring 2018

Mentorship

Maunakea Scholars Program:Graduate Student MentorAutumn 2018 - PresentResearch Mentor:Co-advising high school student with Dr. Xudong SunSpring 2019 - Present

Technical Skills

Languages: Python | IDL | Mathematica | LaTeX | Bash | UNIX | R

Software: Microsoft Office | Wordpress

Telescope Operations: Observed 4+ nights at APO 3.5m, MRO 0.75m, DAO 1.83m

Workshops

Preparing for DKIST: Image processing and Time Series: Northridge, CA

Preparing for DKIST: An Introduction to Ground Based Data: Boulder, CO

UCAR CPAESS Heliophysics Summer School: Boulder, CO

Summer 2019

Summer 2019

Presentations

American Astronomical Society Winter Meeting: Poster

January 2020

• Astrobites: Blogging Astronomy Research and Beyond

American Astronomical Society Winter Meeting: Poster

January 2020

Electric Current Neutralization in Solar Active Regions and its Relation to Magnetic Shear and Eruptive Activity
 American Geophysical Union Fall Meeting: Poster

December 2019

Electric Current Neutralization in Solar Active Regions and its Relation to Magnetic Shear and Eruptive Activity
 SHINE Conference: Poster

Electric Current Neutralization in Solar Active Regions and its Relation to Magnetic Shear and Eruptive Activity
 Lockheed Martin Solar and Astrophysics Lab: Seminar

July 2018

o The Magnetic Origins and Spectroscopic Properties of Coronal Plumes

UW Undergraduate Research Symposium: Poster

May 2018

O Adapting an Amateur Solar Telescope for use as a Lecture, Research, and Public Outreach Tool

Stanford University Solar Observatories Group: Seminar

March 2018

o Critical Magnetic Field Strengths for Unipolar Solar Coronal Plumes in Quiet Regions and Coronal Holes?

American Geophysical Union Fall Meeting: Poster

December 2017

o Critical Magnetic Field Strengths for Unipolar Solar Coronal Plumes in Quiet Regions and Coronal Holes?

UW Undergraduate Research Symposium: Poster

May 2017

• MW Open Cluster Metallicities + Membership Assignment

Theodor Jacobsen Observatory: Public Outreach Talk | The Sun: Our Home Star

May 2017

2018

UW Planetarium: Universe Tours Spring 2016 – Spring 2018

Publications

Critical magnetic field strengths for unipolar solar coronal plumes in quiet regions and coronal holes?:

o Avallone, E. A., Tiwari, S. K., Panesar, N. K., Moore, R. L., Winebarger, A. 2018, ApJ, 861, 111

References available upon request.