

Sean DILLON

CONTACT

INFORMATION

University of Texas at San Antonio
Physics and Astronomy Department
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Personal website: astroseandillon.github.io

EDUCATION

University of Texas–San Antonio, San Antonio, TX, USA

Master's Student in Astrophysics
Advisor: Dr. Angela Speck
August 2020–Present

California State University–Chico, Chico, California, USA

B.S., Physics
Minor: Mathematics
Advisor: Dr. Nicholas Nelson
August 2018–May 2020

Butte College, Oroville, CA, USA

August 2017–May 2018

University of California–Santa Cruz, Santa Cruz, CA, USA

September 2015–June 2017

RESEARCH

EXPERIENCE

Graduate Research Assistant (Jan 2021– Present)

Advisor: Dr. Angela Speck
University of Texas, San Antonio, San Antonio, TX
Modeling cosmic chemicals around AGB star Rx Boo

Research Experience for Undergraduates Internship (May 2019 – August 2019)

Advisor: Dr. Karen Masters
Haverford College, Haverford, PA
Plotting correlations between neutral hydrogen and other cosmic quantities using principle component analysis techniques

Undergraduate Research Assistant (August 2018 – May 2020)

Advisor: Dr. Nicholas Nelson
California State University–Chico, Chico, California
Modeling solar convection around Sun-like stars

RESEARCH

INTERESTS

- Modeling dust around AGB stars
- Evolution of chemical abundances around galaxies
- Computational astrophysics and data analysis in Python

PAPERS:

REFEREED

2. Stark, David V.; Masters, Karen L.; Avila-Reese, Vladimir; Riffel, Rogemar; Riffel, Rogerio; Boardman, Nicholas Fraser; Zheng, Zheng; Weijmans, Anne-Marie; **Dillon, Sean**; et al. *HI-MaNGA: Tracing the physics of the neutral and ionized ISM with the second data release*, Accepted to MNRAS 2021, arXiv: 2101.12680

1. **Dillon, Sean** & 314 others, *The 16th Data Release of the Sloan Digital Sky Surveys: First Release from the APOGEE-2 Southern Survey and Full Release of eBOSS Spectra*, 2020, ApJS, 249, 1, arXiv: 1912.02905

PROFESSIONAL
TALKS
(2019–)

Nov 2019 “ A Principle Component Analysis of the HI Mass Fraction of Galaxies in the MaNGA Survey”

Contributed 2019 Annual Meeting of the American Physical Society Far West Section

Dillon, Sean M., Masters, K.L., Stark, D.

(Abstract E03.00010), Stanford University, Menlo Park, CA

Oct 2019 “ A Principle Component Analysis of the HI Mass Fraction of Galaxies in the MaNGA Survey”

Invited Annual Meeting of Keck Northeast Astronomy Consortium (KNAC), Vassar College, Poughkeepsie, New York

CONFERENCE
POSTERS & WHITE
PAPERS (2019–)

- “A Principle Component Analysis of the HI Mass Fraction of Galaxies in the MaNGA Survey” **Dillon, Sean M.**, Masters, K.L., Stark, D.
Poster for the 235th AAS Meeting (Abstract 207.06), Honolulu, HI
- “Modeling Convection in Slowly-Rotating Stars” **Dillon, Sean**, Swenson, T., Grijalva, T.,
College of Sciences Poster Session (Abstract UF46), California State University–Chico, Chico, CA, USA

PROFESSIONAL
WORKSHOPS

Jan 2020 *Using Python to Search NASA’s Astrophysics Archive* workshop at the 235th AAS Meeting to understand how python can be used for direct data analysis.

PROFESSIONAL AND
ACADEMIC
AFFILIATIONS

- American Astronomical Society (AAS): 2018–present
- American Physical Society: 2018–present
- Society of Physics Students: 2018–2020