Jason B. Trump

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Coursework – *Brigham Young University, Senior, Applied Physics BS*

Physics 228: [Stellar and Extragalactic Astronomy](javascript:void(0);) 2020

* Implemented knowledge of stellar atmospheres, interiors, and evolution in class projects involving real data
* Advanced understanding of galactic structure and cosmology

Grade received: A

Physics 227: Solar System Astronomy 2019

* Showed understanding of planetary processes and systems, and methods for detecting exoplanets
* Contributed to class project analyzing TTVs of exoplanets (publication in prep.) with 46 other students

Grade received: A

Physics 313R: Planetarium and Telescope Operation 2017

* Exhibited ability to collimate, effectively use, and assist others using 12-in Dobsonian and other small telescopes
* Demonstrated ability to teach constellations, stars, and deep space objects to audiences using ZEISS, Digistar
* Planned, programmed, and presented 45-min educational planetarium show using Digistar software

Grade received: A

Physics 329: Observational Astronomy 2017

* Acquired knowledge of data reduction, photometric and period analysis of variable stars
* Operated 0.4-m ASKO telescope at the Orson Pratt Observatory
* Showed competency with astronomy software including IRAF, AstroImageJ, Period04
* Completed final paper in the form of a peer reviewed publication using LaTeX, Linux

Grade received: A

Physics 127: Descriptive Astronomy 2016

* Excelled in understanding of Solar System and large-scale conceptual astrophysics
* Proved ability to identify constellations, stars, and deep space objects as projected in a planetarium
* Observed various night-sky objects using 12-in Dobsonian and CCD-attached 0.4-m ASKO telescopes

Grade received: A

Experience

Educator and Outreach Coordinator Apr 2017-Present

*Royden G. Derrick Planetarium, Provo, Utah*

Supervisor: Dr. M. Jeanette Lawler

* Presented 300+ educational programs to preschool, K-12, and adult audiences
* Developed age-appropriate educational and entertainment programs using Digistar and ZEISS software
* Scheduled and coordinated 2+ years of public visitors to the 120-seat Royden G. Derrick Planetarium
* Helped organize and put on BYU’s annual astronomy day, Astrofest, with 1000+ attendees

Teaching Assistant Jan 2017-Present

*Brigham Young University Department of Physics and Astronomy, Provo, Utah*

* Taught general astronomy, constellations, telescope and planetarium operation to students
* Assisted professors with use of the planetarium and graded class assignments for 200+ students
* Utilized 5-in reflecting, 12-in and 10-in Dobsonian telescopes to help students observe night sky objects
* Maintained and repaired one 5-in reflecting, two 12-in and one 10-in Dobsonian telescopes
* Awarded Outstanding Astronomy TA award in April 2019 based on faculty evaluations of about 20 employees

Astronomy Outreach Intern Jun 2020-Aug 2020

*Bryce Canyon National Park, Utah*

Supervisor: Todd Cullings

* Designed and implemented engaging daytime astronomy activity for children and adults
* Developed and presented 45-min public lecture about astronomy misconceptions
* Perfected nighttime astronomy programs such as full moon hikes and night sky tours
* Transformed existing procedures to keep visitors safe amid COVID-19 pandemic

Research Assistant Apr 2018-Apr 2019

*Orson Pratt Observatory, Provo, Utah*

Supervisor: Dr. Eric Hintz

* Analyzed data from the 0.4-m ASKO telescope at the Orson Pratt Observatory, Provo
* Constructed light curves and performed period analysis using IRAF, AstroImageJ, Excel, Period04, Linux
* Prepared and presented results at the 233rd Meeting of the AAS using PowerPoint, LaTeX

Community Outreach Officer Apr 2019-Present

*Society of Physics Students, BYU Chapter, Provo, Utah*

* Planned, scheduled and presented physics demonstrations and lessons to K-12 and special needs groups
* Worked with 3 other students to brainstorm, organize, and produce engaging activities for college students

Education and Outreach Officer Nov 2019-Present

*BYU Astronomical Society, Provo, Utah*

* Organized and put on public star parties with 10-in and 12-in Dobsonian telescopes at remote locations
* Educated and entertained public audiences of varying ages through planetarium shows using ZEISS, Digistar
* Trained members how to use planetarium systems and how to, collimate, repair, and clean small telescopes

Observer and Analyst May 2017-Aug 2017

*West Mountain Observatory, Santaquin, Utah*

Supervisor: Dr. Mike Joner

* Acquired and analyzed photometric data from 0.91-m, 0.51-m, and 0.32-m telescopes
* Resided on location at the observatory weekly for two days and two nights with two other students

Publications

An Analysis of the delta Scuti Variable V402 Cephei Jan 2019

**Trump, Jason B.**, [2 authors], AAS Meeting #233, id.360.11

KELT 21b: A Hot Jupiter Transiting the Rapidly Rotating Metal-poor Late-A Feb 2018

Primary of a Likely Hierarchical Triple System

Johnson et al., [33 authors], **Trump, Jason**, [ 33 authors], 2018 AJ, vol. 155, id. 100, 20 pp.

Ragozzine et al. In Prep.

One of 46 minor coauthors