Jenna Samuel

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Education

University of California, Davis

September 2015 - Present

Ph.D. in Physics

Advisor: Andrew Wetzel

McNair Graduate Fellow 2015 - 2016

January 2011 - May 2015

Florida International University B.S. in Physics

McNair Scholar 2014 - 2015

Research

Graduate Research

January 2018 - Present

University of California, Davis

Advisor: Andrew Wetzel

• Exploring the orbital histories of satellite galaxies around isolated Milky Way-like galaxies and Local Group-like pairs in the FIRE2 Latte and ELVIS simulations. Using Python to quantify the spatial and kinematic coherence of satellites over time, and comparing to observations of satellites in the Local Group.

Graduate Research

June 2016 - November 2017

University of California, Davis Advisor: Stefano Valenti

• Reduced spectroscopic and photometric data for reverberation mapping of active galactic nuclei (AGN). Developed a Monte Carlo interpolated cross-correlation routine in Python to measure time lags in AGN.

 $Undergraduate\ Research$

August 2014 - September 2015

Florida International University

Advisor: Lei Guo

• Analyzed particle resonances photoproduction cross section of vector mesons produced by a photon beam incident on a liquid Helium target at Jefferson Lab using C++ and ROOT.

Science Undergraduate Laboratory Internship Thomas Jefferson National Accelerator Facility May - August 2014

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Advisors: Valery Kubarovsky, Joerg Reinhold

• Summer residential internship program funded by the U.S. Department of Energy. Characterized detector properties of multi-anode photomultipliers for a Cherenkov radiation detector used in particle spectroscopy.

Publications

A profile in FIRE: resolving the radial distributions of satellite galaxies in the Local Group with simulations

Samuel et al. to be submitted

Teaching

Teaching Assistant

September 2016 - March 2018

University of California, Davis

• Lab TA for introductory physics lab sections. Course TA for introductory astronomy classes and upper division math methods for physics majors. Held weekly office hours, graded weekly assignments and exams, and organized quarterly review sessions.

Learning Assistant

August 2012 - April 2015

Florida International University

• Facilitated experiments in introductory and modern physics labs using high voltage, radiation sources, and optical equipment. Taught students necessary Python programming skills for physics research, and led weekly office hours.

Observing

Lick AGN Monitoring Project

March 2017

1 night, optical spectroscopy on Shane 3m telescope, Lick Observatory

UCO Graduate Observational Astronomy Workshop Lick Observatory

October 2017

Service and Outreach

CUWiP at UC Davis 2019

July 2018 - Present

• Member of the local organizing committee for the Conference for Undergraduate Women in Physics. Leading plans for lodging, laboratory tours, transportation, and recruitment of attendees from local colleges.

Diversity and Inclusion in Physics

October 2017 - Present

• Attend and facilitate weekly meetings on equity issues in the department. Rebuilt website.

Graduate study group in astronomy

April - December 2018

• Led a bi-weekly, peer-led group on paper discussions and professional development.

Astronomy on Tap, Davis

May 2018 - Present

• Help put on free, monthly, public astronomy talks by writing trivia and interacting with guests.