Jennifer V. Medina

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EDUCATION

FLORIDA INTERNATIONAL UNIVERSITY | B.S. IN PHYSICS WITH MINOR IN ASTRONOMY

Expected May 2017 | Miami, FL Advisor: Dr. Walter Van Hamme

INTERNSHIPS AND WORK EXPERIENCE

TAURUS RESEARCH SCHOLAR | Jun 2016 - Aug 2016

Advisor: Dr. Andrew Mann | University of Texas, Austin, TX

- REU Program for undergraduate students pursuing a career in Astronomy.
- Developed a program in Python to accurately calculate the inclination of host stars in extra-solar planet systems in the Praesepe star cluster.
- Development involved data reduction, modeling, statistical analysis, data interpretation, and collaboration with other scientists.

TELESCOPE OPERATOR | May 2016 - Present

Supervisor: Dr. James Webb | Stocker Observatory, Miami, FL

- Work involves setting up telescopes and speaking to the public on the topic of astronomy.
- Responsibilities include maintaining the telescopes, taking images with a 24" reflector telescope, and reducing them using the MIRA imaging program.
- Work also involves teaching students how to use and set up a motored reflector telescope, and providing tours of the Observatory.

UNDERGRADUATE RESEARCH ASSISTANT | MAY 2015 - JUN 2016

Advisor: Dr. Walter Van Hamme | Florida International University, Miami, FL

- KEPLER light curves of the HAT-P 7 and HAT-P 11 binary systems were extracted from NASA archives and analyzed with GNUplot using a program developed on UNIX.
- Using this data, parameters and characteristics of the star-planet system were calculated and compared to literature values.

LEARNING ASSISTANT: PHYSICS I AND II | AUG 2014 - JAN 2017

Supervisor: Dr. Xuewen Wang | Florida International University, Miami, FL

- Work involved helping students understand fundamental concepts from the lecture through experiments in the laboratory.
- Mentored groups of students and conducted one-on-one teaching.
- Other tasks included setting up equipment and preparing software for the students to use in their data analysis.

PUBLICATIONS

Andrew W. Mann, Eric Gaidos, Andrew Vanderburg, Aaron C. Rizzuto, Megan Ansdell, Jennifer Vanessa Medina, Gregory N. Mace, Adam L. Kraus, Kimberly R. Sokal

(2017) "Zodiacal Exoplanets in Time (ZEIT). IV. Seven transiting planets in the Praesepe cluster"

Volume 153, Number 2

Published on: The Astronomical Journal (AJ)

Available Here

SKILLS

Programming and Software Python, LTFX, HTML, MIRA Editing Software, Microsoft Office, GNUplot

FORTRAN, R, Matlab

OS Windows iOS, LINUX

Technical Data Analysis, Image Reduction, Statistical Interpretation, Problem Solving

Languages English (Fluent), Spanish (Fluent), French (Some)

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CONFERENCES

APS CUWIP | BOULDER, CO | 2017

Presented: "Calculating Vsin(i) of Young Planet-hosting Stars" Poster

AAS | GRAPEVINE, TX | 2017

Presented: "Calculating Vsin(i) of Young Planet-hosting Stars" Poster

SESAPS | BLACKSBURG, VA | 2016

Presented: "Calculating Vsin(i) of Young Planet-hosting Stars" Poster

CURFIU | MIAMI, FL | 2016

Presented: "The HAT-P 7 and HAT-P 11 Star-Planet Systems" Poster

APS CUWIP | ATLANTA, GA | 2016

Attended

APS | BALTIMORE, MD | 2015

Attended

OBSERVING EXPERIENCE

Keck Observatory Mauna Kea, HI Keck 2 (NIRC2)

McDonald Observatory Fort Davis, TX 2.7m Cassegrain Telescope (IGRINS) Stocker Observatory Miami, FL 0.6m Ritchey-Chretien Telescope

MEMBERSHIPS AND LEADERSHIP POSITIONS

2017 President FIU Astronomy Club

2016 President Society for the Advancement of Women in STEM

2016 Member American Astronomical Society
2015 Member Sigma Pi Sigma Honor Society
2015 Member American Physical Society
2014 Member Society of Physics Students

AWARDS AND SCHOLARSHIPS

2017 2nd Place Winner CUWiP Poster Comptetition2016 Scholarship TAURUS REU Program

2015 Scholarship NSF S-STEM Program (Awarded, Not accepted)

2012 Scholarship Florida Bright Futures2012 Scholarship FIU Academic Excellence