

Victoria Bonidie | Curriculum Vitae

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Education

Ph.D. Candidate in Physics

University of Pittsburgh, Pittsburgh, PA

Fall 2020 – Present

M.S. in Physics

University of Pittsburgh, Pittsburgh, PA

December 2021

B.A. in Astrophysics, Applied Mathematics Minor

Franklin & Marshall College, Lancaster, PA

December 2019

Magna Cum Laude

Research Experience

The Search for Planets Around Red Clump Stars

RESEARCH ADVISOR: *Dr. Carles Badenes, University of Pittsburgh*

Fall 2022–Present

Detection and statistics of close-orbit, transiting planets around red clump stars using data from the Kepler/K2 missions

Multiplicity Statistics of Stars in the Sagittarius Dwarf Spheroidal Galaxy

RESEARCH ADVISOR: *Dr. Carles Badenes, University of Pittsburgh*

Fall 2021–Spring 2022

Examining the distribution of radial velocity (RV) variations a sample of stars identified as members of the Sagittarius (Sgr) dwarf spheroidal (dSph) galaxy using time-resolved spectra from the Apache Point Observatory Galactic Evolution Experiment (APOGEE).

Analyzing the Pulse Profiles of Pulsar Stars

RESEARCH ADVISOR: *Dr. Robert Ferdman, University of East Anglia*

Fall 2018–Fall 2018

Developed code to fit and analyze pulse profiles from confirmed pulsars detected by the Arecibo and the Parkes Radio Telescopes.

Pulsar Detection and Timing Observations

RESEARCH ADVISOR: *Dr. Fronefield Crawford III, Franklin & Marshall College*

Fall 2017– Spring 2019

Conducted Arecibo pulsar survey and timing observations for the North American Nanohertz Observatory for Gravitational Waves NANOGrav (NANOGrav) collaboration. Analyzed data taken from the Parkes Radio telescope in Australia in search of millisecond pulsars. Discovered new pulsar in the Large Magellanic Cloud.

Presentations

2023 Emerging Researchers in Exoplanet Science Symposium (ERES VIII)

Poster

The Search For Planets Around Evolved Stars

Yale University

June 2023

2021 SDSS-IV Collaboration Meeting

Poster

Multiplicity Statistics of Stars in the Sagittarius Dwarf Spheroidal Galaxy

Virtual

August 2021

223rd Meeting of the American Astronomical Society

Poster

The NANOGrav STARS Program at Franklin and Marshall College

Seattle, WA

January 2019

Service and Outreach

Astronomy & Astrophysics (A&A)

Referee

May 2023

American Astronomical Society Congressional Visits Day

Selected Participant, Legislative and Executive Branch

Washington, DC

April 2023

Springdale Jr./Sr. High School Career Exploration Talk

Invited Speaker

Allegheny Valley School District

December 2022

Astronomy on Tap Pittsburgh

Speaker

Two Frays Brewery

June 2022, September 2022

Awards

PITT PACC Graduate Fellow

Approx. \$13,000

2023

Zaccheus Daniels Fellowship

Approx. \$13,000

2023

Whittington Fellowship

Approx. \$68,000

2020

Michael J. Mumma Award (Franklin and Marshall College)

Approx. \$6,000

2019

John Kershner Scholar (Franklin and Marshall College)

Approx. \$500

2019

Marshall Fellow (Franklin and Marshall College)

Approx. \$4,000

2018

Michael Albert Lewis Memorial Prize in Physics (Franklin and Marshall College)

Approx. \$500

2017

Teaching Experience

Teaching Assistant

PHYS 011: Introductory Physics 1

University of Pittsburgh

Summer 2022, 2023

Teaching Assistant

ASTRON 0089: Stars, Galaxies, and Cosmos

University of Pittsburgh

Fall 2021 & Summer 2022, 2023

Teaching Assistant

PHYS 175: Introductory Physics 2

University of Pittsburgh

Spring 2022

Publications

First Author:

Multiplicity Statistics of Stars in the Sagittarius Dwarf Spheroidal Galaxy – Comparison to the Milky Way

Victoria Bonidie, Travis Court, Christine Mazzola Daher, Catherine E. Fielder, Carles Badenes, Jeffrey Newman, Maxwell Moe, Kaitlin M. Kratter, Matthew G. Walker, Steven R. Majewski, Christian R. Hayes, Sten Hasselquist, Keivan Stassun, Marina Kounkel, Don Dixon, Guy S. Stringfellow, Joleen K. Carlberg, Borja Anguiano, Nathan De Lee, and Nicholas W. Troup

The Astrophysical Journal Letters, Volume 933, Issue 1, id.L18, 6 pp.

Contributing Author:

The NANOGrav 15 yr Data Set: Observations and Timing of 68 Millisecond Pulsars

Josheph Swiggum and NANOGrav PFC (including **Victoria Bonidie**)

The Astrophysical Journal Letters, Volume 951, Issue 1, id.L9, 78 pp.

A Parkes "Murriyang" Search for Pulsars and Fast Transients in the Large Magellanic Cloud

Shinnosuke Hisano, Fronfield Crawford, **Victoria Bonidie**, Md F. Alam, Keitaro Takahashi, Duncan R. Lorimer, Josh P. Ridley, Maura M. McLaughlin, and Benetge B. P. Perera

The Astrophysical Journal, Volume 928, Issue 2, id.161, 11 pp.