Christina Gilligan

CONTACT INFORMATION

Department of Physics and Astronomy
Dartmouth College
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RESEARCH INTERESTS

Observational astronomy, photometry, spectroscopy, stellar evolution, RR Lyrae, globular clusters

EDUCATION

Dartmouth College, Hanover, NH

Graduate Student, Astronomy, September 2015 - Present

- Advisor: Dr. Brian Chaboyer

University of Virginia, Charlottesville, VA

B.A., Astronomy-Physics, May 2015

- Thesis: Searching for Giant Pulses in Millisecond Pulsars
- Advisor: Dr. Scott Ransom

REFEREED JOURNAL PUBLICATIONS

[1] O'Malley, E., C.K. Gilligan, and B.C. Chaboyer. Absolute ages and distances of 22 GCs using Monte Carlo Main-sequence Fitting. *Astrophysical Journal*, 838(2):162–177, April 2017. doi:10.1007/s11721-014-0100-8

CONFERENCE TALKS

[2] Whiteworth, R., and C.K. Gilligan. The JefferSat High Altitude Student Payload. In: *American Institute of Aeronautics and Astronautics Region 1 Student Regional Conference*, Ithaca, NY, April 25–26, 2014.

CONFERENCE POSTERS

[3] Gilligan, C.K. Multiple Stellar Populations in Globular Clusters in the Large Magellanic Cloud. In: *Dartmouth College Graduate Poster Session*, April 11, 2017.

[4] P. Dufour et al. Magnetic atmosphere models for white dwarfs with heavy elements. In: *19th European White Dwarf Conference*, Montreal, Canada, August 11–15, 2014.

RESEARCH EXPERIENCE

Dartmouth College, Hanover, NH

Graduate Fellow **Summer 2016 - Present**

- Department of Physics and Astronomy
- Advisor: Brian Chaboyer
- Running Dartmouth Stellar Evolution Code
- Searching for multiple populations in LMC Globular Clusters

Graduate Fellow **Fall 2015 - Summer 2016**

- Department of Physics and Astronomy
- Advisor: John Thorstensen
- Found an SW Sextantis Cataclysmic Variable Star candidate

University of Virginia, Charlottesville, VA

Undergraduate Research Assistant **Jan. 2013 - July 2015**

- Department of Physics
- Advisor: Donald Crabb
- Solid Polarized Target Group
- Oversaw target material creation

Principal Investigator for the JefferSat Project **Sep. 2013 - May 2014**

- Department of Mechanical Engineering
- Advisor: Christopher Goyne
- Creation of the JefferSat CubeSat
- Measure radiation in the upper atmosphere to ensure airline crew safety

University of Oklahoma, Norman, OK

Research Experience for Undergraduate Students **May 2014 - July 2014**

- Department of Physics and Astronomy
- Advisor: Mukremin Kilic
- Searched for dust around White Dwarfs
- Evidence for former planets around White Dwarfs

AWARDS

Dartmouth Graduate Student Poster Session Winner **April 2017**

University of Virginia Physics Research Symposium 2nd Place **April 2015**

LEADERSHIP

Dartmouth Resident Fellow **Sep. 2016 - Present**

- Involved in fostering undergraduate intellectual engagement
- Create programming for undergraduates related to physics and astronomy
- Live with students in a residential setting

TEACHING EXPERIENCE

A1: Exploration of the Solar System

P13: Introductory Mechanics

SERVICE

Montshire Museum of Science: Astronomy Day Presenter **Feb. 2016**

UVa's McCormick Observatory Public Night Volunteer **Sep. 2013 - May 2015**

SOFTWARE

Python, Java, Mathematica, Linux/Unix, Autodesk Inventor, Labview, Sketchup, IRAF, DS9, Latex