

# Charlotte M. Wood | CV

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## Education

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### University of Notre Dame

*Ph.D. Physics*

Advisor: Dr. Peter Garnavich

**Notre Dame, IN**

*2016-present*

### Hofstra University

*B.S. Physics, Minor in Astronomy*

High Departmental Honors – Advisor: Dr. Stephen S. Lawrence

Magna Cum Laude

Honors College Graduate with Distinction

**Hempstead, NY**

*2012-2016*

## Publications

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- **"Benchmarking Substellar Evolutionary Models Using New Age Estimates for HD 4747 B and HD 19467 B"**  
Submitted to The Astrophysical Journal, September 2018
- **"The TRENDS High-Contrast Imaging Survey. VIII. Compendium of Benchmark Objects"**  
In preparation, intended for The Astrophysical Journal (co-author)
- **"High-Time-Resolution Photometry of AR Scorpii: Confirmation of the White Dwarf's Spin-Down"**  
The Astronomical Journal, July 2018 (co-author)

## Talks and Presentations

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- **"Benchmarking Substellar Evolutionary Models Using New Age Estimates for HD 4747 B and HD 19467 B"**  
- Poster for the AWIS Women in Science Regional Conference, University of Notre Dame, October 2018
- **"Precise Ages for the Benchmark Brown Dwarfs HD 19467 B and HD 4747 B"**  
Poster for the 231st Meeting of the American Astronomical Society, Washington D.C., January 2018
- **"The Origin of Metals in Extremely Low Mass White Dwarfs"**  
Poster for Undergraduate Research Day, Hofstra University, December 2015

## Other Research Experience

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### Observing Run at the Large Binocular Telescope

*University of Notre Dame*

Four and a half nights of observing using MODS on the LBT. Obtained calibration data and would have run through OSURC queue to obtain data on many different projects (bad weather).

**Tucson, AZ**

*Fall 2018*

### The Origin of Metals in Extremely Low Mass White Dwarfs

*University of Oklahoma*

Research Experience for Undergraduates – Advisor: Dr. Mukremin Kilic

Looked for evidence of debris disks around extremely low mass white dwarfs as a source of calcium excess.

**Norman, OK**

*Summer 2015*

**Observing Run at Cerro Tololo Interamerican Observatory****La Serena, Chile***Hofstra University**Fall 2014*

Advisor: Dr. Stephen S. Lawrence

Three full nights of observing using the 0.8m telescope at CTIO to study the light echoes of SN1987A.

**Study of the Recurrent Nova T Pyxidis****Hempstead, NY***Hofstra University**2014-2015*

Advisor: Dr. Stephen S. Lawrence

Analyzed data from the Hubble Space Telescope to measure expansion of "knots" around T Pyxidis.

## Awards

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**Arthur J. Schmitt Leadership Fellowship***University of Notre Dame**Spring 2016*

Awarded to the top 15 students in the Colleges of Science and Engineering each year.

**Phi Beta Kappa***Hofstra University**2015*

Honorees are selected for maintaining an exceptional GPA while taking broad and rigorous coursework in the liberal arts and sciences.

**Sigma Pi Sigma***Hofstra University**2015*

Sigma Pi Sigma exists to honor outstanding scholarship in physics and to provide a fellowship of persons who have excelled in physics.

**Harold E. Clearman Memorial Award***Hofstra University**Spring 2015*

This scholarship is awarded to a student majoring in Physics who has achieved meritorious performance in coursework along with an outstanding individual research project.

## Teaching Experience

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**Physics Teaching Practicum****Notre Dame, IN***University of Notre Dame**August 2018-present*

Covered three lectures (Physics of Astrophysics, Sept. 2018; Introduction to Astrophysics, Nov. 2018; TBD) under observation and created a teaching portfolio.

**Lead Teaching Assistant for Descriptive Astronomy****Notre Dame, IN***University of Notre Dame**August 2017-present*

Responsibilities include running the observatory, organizing help sessions, and grading for the non-science majors introductory astronomy class.

**Teaching Assistant for Physics of Astrophysics****Notre Dame, IN***University of Notre Dame**August 2018 - December 2018*

Responsibilities include grading and assisting with homework assignments and running an observing session for the introductory graduate student astrophysics class.

**Teaching Assistant for Lasers and Modern Optics****Notre Dame, IN***University of Notre Dame**January 2017-May 2017*

Responsibilities include setting up and testing labs, grading lab reports, and proctoring an exam for the junior/senior undergraduate optics class/lab.

**Teaching Assistant for Descriptive Astronomy****Notre Dame, IN***University of Notre Dame**August 2016-December 2016*

Responsibilities include running the observatory, assisting with proctoring exams, and grading for the non-science majors introductory astronomy class.

**Physics Tutor****Hempstead, NY***Hofstra University**September 2014-December 2015*

Tutored non-physics majors for both calculus and non-calculus based introductory physics courses.

### **Peer Teacher for ASTR 011 – The Solar System**

*Hofstra University*

**Hempstead, NY**

*January 2015 - May 2015*

Assisted Dr. Stephen S. Lawrence in conducting lab activities for an introductory astronomy class.

## **Skills**

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**Computer Languages/Programs:** Python, IRAF/PyRAF, L<sup>A</sup>T<sub>E</sub>X, Mathematica, MATLAB, IDL, Git.

**Spoken Languages:** English (native), Spanish (limited working proficiency), Italian (elementary).

## **Activities & Outreach**

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### **Graduate Physics Society Executive Board**

*University of Notre Dame*

**Notre Dame, IN**

*Summer 2018 - Present*

Serving as the astronomy group representative on the executive board for the physics graduate student organization. E-board acts as a bridge between the graduate students and the department and helps organize all GPS events, including the annual conference.

### **Summertime Stargazing**

*University of Notre Dame*

**Notre Dame, IN**

*July/August 2018*

Assisted with a large public observing event, manned a telescope and helped answer the public's questions about what they were seeing.

### **Observing for Physics of Atomic Nuclei Students**

*University of Notre Dame*

**Notre Dame, IN**

*June 2018*

Held an observing night for high school students attending the Physics of Atomic Nuclei camp.

### **Expanding Your Horizons**

*University of Notre Dame*

**Notre Dame, IN**

*April 2018*

Ran a workshop teaching middle school girls about exoplanets and helped them craft their own paper-mache exoplanets.

## **Professional Organizations**

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### ○ **American Astronomical Society**

AAS is the major organization of professional astronomers in North America. Their mission is to enhance and share humanity's scientific understanding of the universe.

## **References**

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### ○ **Dr. Peter Garnavich**

Professor of Physics, Department Chair  
University of Notre Dame  
Notre Dame, IN

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### ○ **Dr. Stephen S. Lawrence**

Professor of Physics and Astronomy  
Hofstra University  
Hempstead, NY

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Phone: (516) 463-5584  
E-mail: stephen.s.lawrence@hofstra.edu

### ○ **Dr. Mukrem Kilic**

Assistant Professor of Physics and Astronomy  
University of Oklahoma  
Norman, OK

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