

# Charlotte M. Wood | CV

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## Education

### University of Notre Dame

*Ph.D. Physics*

Echoes of Silence: Probing Type Ia Supernova Environments with Scattered Light Echoes

Advisor: Dr. Peter Garnavich

Notre Dame, IN

2020-present

### Hofstra University

*B.S. Physics, Minor in Astronomy*

Magna Cum Laude, High Departmental Honors, Honors College Graduate with Distinction

Advisor: Dr. Stephen S. Lawrence

Hempstead, NY

2012-2016

## Publications

- **Benchmarking Substellar Evolutionary Models Using New Age Estimates for HD 4747 B and HD 19467 B**; C. M. Wood, T. Boyajian, K. von Braun, J. M. Brewer, J. R. Crepp, G. Schaefer, A. Adams, & T. R. White; *The Astrophysical Journal*, 873, 83 (doi:10.3847/1538-4357/aafe01)
- **The TRENDS High-Contrast Imaging Survey. VIII. Compendium of Benchmark Objects**; E. J. Gonzales, J. R. Crepp, E. B. Bechter, C. M. Wood, J. A. Johnson, B. T. Montet, H. Isaacson, & A. W. Howard; *The Astrophysical Journal*, 893, 27 (doi: 10.3847/1538-4357/ab71fb)
- **High-Time-Resolution Photometry of AR Scorpii: Confirmation of the White Dwarf's Spin-Down**, R. A. Stiller, C. Littlefield, P. Garnavich, C. M. Wood, F.-J. Hambsch, & G. Myers; *The Astronomical Journal*, 156, 150 (doi:10.3847/1538-3881/aad5dd)

## Talks and Presentations

- **"The Evolution of the Light Echo Around Type Ia Supernova 1998bu"**
  - Poster, 235th Meeting of the American Astronomical Society, Honolulu, HI, Jan. 2020
- **"The Slowly Fading Light Echo Around Type Ia Supernova 2009ig"**
  - Poster, Midwest Workshop on Supernovae & Transients, Ohio State University, Sep. 2019
  - Seminar, University of Notre Dame, Mar. 2019
  - Talk, Midwest Workshop on Supernovae & Transients, University of Chicago, Feb. 2019
  - Poster, 233rd Meeting of the American Astronomical Society, Seattle, WA, Jan. 2019
- **"Benchmarking Substellar Evolutionary Models Using New Age Estimates for HD 4747 B and HD 19467 B"**
  - Talk, College of Science and Engineering Joint Annual Meeting, University of Notre Dame, Dec. 2018
  - Poster, AWIS Women in Science Regional Conference, University of Notre Dame, Oct. 2018
- **"Precise Ages for the Benchmark Brown Dwarfs HD 19467 B and HD 4747 B"**
  - Poster, 231st Meeting of the American Astronomical Society, Washington D.C., January 2018

## Other Research Experience

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### Observing Runs at the Large Binocular Telescope

**Tucson, AZ**

*University of Notre Dame*

*Oct. 2018, Mar./Oct./Dec. 2019*

Remote observing from the University of Arizona for projects submitted by OSURC member institutions. Total of 20 nights using LBC & MODS.

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

**Norman, OK**

*University of Oklahoma*

*Summer 2015*

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.

## Awards

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### Sigma Xi Grant in Aid of Research

*University of Notre Dame*

*Fall 2019*

Grant from Sigma Xi to pay for travel expenses to and from a research site, or for purchase of non-standard laboratory equipment necessary to complete a specific research project.

### Arthur J. Schmitt Leadership Fellowship

*University of Notre Dame*

*Spring 2016*

This fellowship is awarded to the top 15 students in the ND Colleges of Science and Engineering each year.

## Teaching Experience

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### Physics Teaching Practicum

**Notre Dame, IN**

*University of Notre Dame*

*Fall 2018 - Spring 2020*

Covered four lectures under observation of another instructor and created a teaching portfolio. Classes: Introduction to Astrophysics (3; undergraduate), Physics of Astrophysics (1; undergraduate/graduate)

### Teaching Assistant for Physics Classes

**Notre Dame, IN**

*University of Notre Dame*

*August 2016-present*

Responsibilities include setting up lab equipment, grading, helping proctor exams, and organizing help sessions for students. Classes: Descriptive Astronomy (undergraduate), Lasers & Modern Optics (undergraduate), Physics of Astrophysics (graduate), Modern Observational Techniques (undergraduate/graduate).

## Skills

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**Computer Languages/Programs:** Python, IRAF/PyRAF,  $\text{\LaTeX}$ , 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

**Notre Dame, IN**

*University of Notre Dame*

*Summer 2018 - Spring 2020*

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.

### Association for Women in Science Physics Department Representative

**Notre Dame, IN**

*University of Notre Dame*

*Fall 2019 - Spring 2020*

Department representatives act as a liaison between AWIS and their respective departments and help organize & promote professional development events that support women in science.

### Public Observing Events

**Notre Dame, IN**

*University of Notre Dame*

Coordinated observing events for the public. Includes an observing event for high school summer camp students, two large general public observing events, a Mercury transit viewing, and an observing event for faculty and their families.

### Science Demonstration Events

Notre Dame, IN

#### *University of Notre Dame*

Set up and ran demos for children. Includes running a session for Expanding Your Horizons (science workshops for middle school girls), staffing a booth at Science Alive (general science demos for the public), running a session for Art-2-Science (week-long science crafts camp for elementary & middle schoolers), setting up demos for an event celebrating the 50th anniversary of the Moon landing, and setting up demos for Our Universe Revealed (public lecture series).

## Professional Organizations

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- o **Sigma Xi**

Sigma Xi, The Scientific Research Honor Society, is the international honor society of science and engineering.

- o **Association for Women in Science**

AWIS is dedicated to driving excellence in STEM by achieving equity and full participation of women in all disciplines and across all employment sectors.

- o **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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- o **Dr. Peter Garnavich**

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

- o **Dr. Stephen S. Lawrence**

Professor of Physics and Astronomy  
Hofstra University  
Hempstead, NY

- o **Dr. Mukremin Kilic**

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

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