

# Julie N. Skinner

INSTITUTE FOR ASTROPHYSICAL RESEARCH  
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## EDUCATION

**Dartmouth College**  
**Hanover, New Hampshire**

**Ph.D. in Physics & Astronomy, 2014**

Dissertation: *Cataclysmic Variables and White Dwarf-M Dwarf Binaries from the SUPERBLINK Proper Motion Survey*  
Advisors: John R. Thorstensen, Sébastien Lépine (Georgia State University)

**University of Oklahoma, Norman, Oklahoma**  
**Norman, Oklahoma**

**B.S. in Astrophysics, 2007**

National Hispanic Scholar, Oklahoma Academic Scholar (Full Tuition)  
Thesis: *Detailed Photoionization Modeling of the Halo Planetary Nebula DdDm1*  
Advisor: R.B.C. Henry

## POSITIONS & FELLOWSHIPS

**Visiting Faculty, Smith College** 2018-2019

**Postdoctoral Associate, Boston University** 2014-2018  
Supervisors: Philip S. Muirhead (2016-2018), Andrew West (2014-2016)

**Graduate Research, Dartmouth College** 2007-2014  
Advisor: John Thorstensen

**Graduate Fellow for Professional Development Programs** 2013-2014  
Dartmouth Center for the Advancement of Learning (DCAL)

## GRANTS

NASA K2 Cycle 5 - Activity and Planets at the Bottom of the Main Sequence	Science PI, \$50k
NASA K2 Cycle 4 - Activity and Planets at the Bottom of the Main Sequence	Science PI, \$40k
NSF Graduate STEM Fellowship in K-12 Education 2010-2011	\$60k
Kitt Peak National Observatory REU Fellow 2006	\$8k
Undergraduate Research Grant, Honors College, Univ. of Oklahoma	\$500

## HONORS & AWARDS

Honorable Mention, Poster Competition, Cool Stars 19	2016
Chair's Teaching Award, Dept. of Physics & Astronomy, Dartmouth College	2013
Astronomy Ambassador, American Astronomical Society	2013
J. Clarence Karcher Scholarship, Dept. of Physics & Astronomy, Univ. of Oklahoma	2006
Recognition for Meritorious Scholarship, Dept. of Physics & Astronomy, U. of Oklahoma	2004, '05, '07
National Hispanic Scholar	2003
Oklahoma Academic Scholar (Full Tuition), Univ. of Oklahoma	2003

## INVITED TALKS

- Talk, Special Session: Science with the Discovery Channel Telescope and Beyond, AAS #229 Jan 2017  
*“Proper Motions and Parallaxes of Very Low-Mass Stars using DCT Astrometry”*
- Colloquium, Institute for Astrophysical Research, Boston University Sept 2016  
*“Understanding the Solar Neighborhood through a Triptych of Low-Mass Star Populations”*
- Seminar, Dept. of Physics, UMass Lowell June 2016  
*“Magnetic Activity of Nearby White Dwarf-M Dwarf Binaries”*
- Seminar, Harvard-Smithsonian CfA Small Scale Phenomena May 2016  
*“DCT Astrometry of Very Low-Mass Stars”*
- Seminar, Harvard-Smithsonian CfA Exoplanet Lunch April 2016  
*“Magnetic Environments around Solar Neighborhood White Dwarf-M Dwarf Binaries”*
- Seminar, Carnegie Dept. of Terrestrial Magnetism May 2015  
*“Understanding the Solar Neighborhood through a Triptych of Low-Mass Star Populations”*

## TEACHING, MENTORING, & OUTREACH

- Subject Matter Expert Reviewer, WGBH Educational Foundation 2018
- Associate Director, Boston University Astronomy NSF REU Program 2015-2016  
*Coordinated research and career development seminars for REU student cohort*
- Co-Instructor, “From the Big Bang to Humankind”, Tufts University Spring 2016  
*Taught origin of the elements and exoplanet systems for cross-disciplinary non-majors course*
- Mentor, Sheila Sagear, Boston University Undergraduate 2016-present
- Co-founder & Director, Boston Univ. Women in Astronomy Lunch Assoc. 2015-present  
*Created and now direct a cross-hierarchical mentoring group for women in the BU Dept. of Astronomy*
- Workshop Facilitator, Dartmouth Center for the Advancement of Learning 2013-2014  
*Led workshops on teaching & learning for graduate students and postdocs. Selected topics include Collaborative Learning Techniques, Difficult Situations as a TA, Answering Controversial Questions*
- Lab Instructor, Dartmouth College 2007-2013  
*Taught undergraduate laboratory sessions of 10-15 students each. Classes included Exploring the Universe (Intro. Astronomy), Introductory Physics II (E&M), Observational Techniques*
- Teaching Assistant, Dartmouth College 2007-2013  
*Taught undergraduates in recitation-style office hours with example problems and assisted with homework problems. Classes included Stars and the Milky Way, High Energy Astrophysics*
- Developer & Instructor, Observational Astronomy March Intensive, Hanover High School March 2013  
*Developed and instructed a short course for high school students alongside two high school teachers. Students learned about astronomical imaging and spectroscopy and manipulated their own data*
- MDM Observatory Observing Mentor Various  
*Trained undergraduate students in observing techniques. Students observed with me and independently.*
- NSF Graduate STEM Fellow in K-12 Education, Hanover, NH 2010-2011  
*“Resident Scientist” & Instructor in 8th grade physical science course*
- Mentor, Dartmouth Women’s Mentoring Group Coordinator, 2010-2011  
*Mentor to High School girls from school-in-need* 2009-2010

Instructor, Montshire Museum of Science <i>Engaged preschoolers in the scientific method</i>	2008-2013
Public Talks & Demonstrations <i>Science by the Pint, Middle School Science Cafes, Night Sky Tour at Hanover Town Library, McAuliffe-Shepard Discovery Center Summer Camps &amp; Teen Night, Montshire Museum of Science Earth &amp; Space Day, USA Science &amp; Engineering Festival</i>	2007-present

*PROFESSIONAL SOCIETIES*

*Full Member, American Astronomical Society*

*MEDIA*

[Wanted: Red Dwarfs for TESS Mission](#), BU Research  
[TRAPPIST-1 Discovery Holds Promise for BU Astronomers](#), The Daily Free Press

*PROFESSIONAL SERVICE*

Organizing Committee Member, Dwarf Stars & Clusters with K2: A Workshop	2017-2018
LOC Member, Cool Stars 20	2017-2018
Reviewer, Boston University TAC	2016-present
Referee, AAS Journals	2014-present
Organizer, BU Lunch Seminar	2015
Future Faculty Advisory Board, Dartmouth Center for the Advancement of Learning	2009-2014
Coordinator, Astronomy Journal Lunch, Dartmouth College	2012-2013
Physics & Astronomy Representative, Dartmouth Graduate Student Council	2009-2010

*SELECTED PROFESSIONAL DEVELOPMENT*

Participated in numerous workshops on teaching associated with NSF GK-12 program, DCAL <i>Principles of Learning, Collaborative Learning Techniques, Critical Moments &amp; Diversity, Enhancing Scientific Creativity</i>	2010-2011
Presenter, New England Faculty Development Consortium Conference	Fall 2008

*TELESCOPE TIME AWARDED*

Parallaxes of Very Low-Mass Stars 22 nights	4.3m Discovery Channel Telescope Lowell Observatory
Metallicities of M Dwarfs with White Dwarf Companions 1.5 nights	NASA Infrared Telescope Facility
Spectroscopy & Photometry of Cataclysmic Variables and White Dwarf-M Dwarf Binaries 81 nights 34 nights	2.4m Hiltner Telescope, MDM Observatory 1.3m McGraw-Hill Telescope, MDM Observatory

## REFEREED PUBLICATIONS

**Julie N. Skinner**, Dylan P. Morgan, Andrew A. West, Sébastien Lépine, John R. Thorstensen  
*Activity and Kinematics of White Dwarf-M Dwarf Binaries from the SUPERBLINK Proper Motion Survey*  
The Astronomical Journal, Vol. 154, Issue 3, article id. 118 (2017)

John R. Thorstensen, Cynthia J. Taylor, Christopher S. Peters, **Julie N. Skinner** et al.  
*Spectroscopic Orbital Periods for 29 Cataclysmic Variables from the Sloan Digital Sky Survey*  
The Astronomical Journal, Vol. 149, Issue 4, article id. 128 (2015)

**Julie N. Skinner**, John R. Thorstensen, Sébastien Lépine  
*Cataclysmic Variables in the SUPERBLINK Proper Motion Survey*  
The Astronomical Journal, Vol. 148, Issue 6, article id. 115 (2014)

John R. Thorstensen, **Julie N. Skinner**  
*Spectroscopy and Photometry of Cataclysmic Variable Candidates from the Catalina Real Time Survey*  
The Astronomical Journal, Vol. 144, Issue 3, article id. 81 (2012)

S. Vennes, J.R. Thorstensen, A. Kawka, P. Németh, **J. N. Skinner** et al.  
*Discovery of a Bright, Extremely Low Mass White Dwarf in a Close Double Degenerate System*  
The Astrophysical Journal Letters, Vol. 737, Issue 1, article id. L16 (2011)

**Julie N. Skinner**, John R. Thorstensen, Eve Armstrong, Steve Brady  
*The New Eclipsing Cataclysmic Variable SDSS 154453+2553*  
Publications of the Astronomical Society of the Pacific, Vol. 123, issue 901, pp. 259-262 (2011)

John R. Thorstensen, Christopher S. Peters, **Julie N. Skinner**  
*Optical Studies of 20 Longer-Period Cataclysmic Binaries*  
Publications of the Astronomical Society of the Pacific, Vol. 122, Issue 897, pp1285-1302 (2010)

R.B.C. Henry, K.B. Kwitter, R.J. Dufour, **J.N. Skinner**  
*A Multiwavelength Analysis of the Halo Planetary Nebula DdDm-1*  
The Astrophysical Journal, Vol. 680, Issue 2, pp. 1162-1173 (2008)

## SELECTED MEETING ABSTRACTS

**Julie N. Skinner**, Dylan P. Morgan, Andrew A. West, John R. Thorstensen, Sébastien Lépine  
*Activity and Kinematics of Solar Neighborhood White Dwarf-M Dwarf Binaries*  
The 19th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun DOI 10.5281/zenodo.163437 (2016)

**Julie N. Skinner**, Andrew A. West, Jacqueline K. Faherty, Philip S. Muirhead  
*DCT Astrometry of Very Low-Mass Stars*  
The 19th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, DOI 10.5281/zenodo.163442 (2016)

**Julie N. Skinner**, Dylan P. Morgan, John R. Thorstensen, Sébastien Lépine  
*White Dwarf-M Dwarf Binaries in the Solar Neighborhood*  
American Astronomical Society, AAS Meeting #227, (2016)

**Julie N. Skinner**, John R. Thorstensen, Sébastien Lépine  
*Results from a Search for Nearby Cataclysmic Variables and Related Objects*  
American Astronomical Society, AAS Meeting #221, #148.05 (2013)

**Julie N. Skinner**, J. Thorstensen, S. Lépine  
*First Results from a Search for Nearby Cataclysmic Variables and Related Objects*  
American Astronomical Society, AAS Meeting #218, #127.10 (2011)

**Julie Skinner**, John Thorstensen, Eve Armstrong & Steve Brady

*The Eclipsing Cataclysmic Variable SDSS 154453+2553*

14th North American Workshop on Cataclysmic Variables & Related Objects, Poster #51, (2009)

**J.N. Skinner**, R.B.C. Henry, K.B. Kwitter, R.J. Dufour

*A Multiwavelength Abundance Analysis of the Halo Planetary Nebula DdDm-1*

American Astronomical Society, AAS Meeting #211, #100.12 (2007)

#### RESEARCH NOTES & TELEGRAMS

John R. Thorstensen, Frederick A. Ringwald, Cynthia J. Taylor, Holly A. Sheets, Christopher S. Peters,

**Julie N. Skinner**, Ereik H. Alper, Kathryn E. Weil

*New or Improved Orbital Periods of Cataclysmic Binaries*

Research Notes of the American Astronomical Society, Volume 1, No. 1, p. 29, (2017)

D. Milisavljevic, G.H. Marion, E.Y. Hsiao, A. Soderberg, R. Margutti, M. Drout, N. Sanders, P. Challis, R. Kirshner, R. Chornock, R. Foley, and **J. Skinner**

*Optical and near-infrared spectroscopy of SN 2013ak (=PSN J08070669-2803101)*

The Astronomer's Telegram, #4943, Apr. 2013

J.P. Halpern, **Julie Skinner**

*Outburst spectroscopy of Swift J1922.7-1716 and Optical Imaging in Quiescence*

The Astronomer's Telegram, #3742, Nov. 2011