William M. Wolf

CONTACT Information Department of Physics

University of California Santa Barbara

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Personal Information Date of Birth: October 28, 1987

Nationality: American

Research Interests Theoretical stellar astrophysics, accreting white dwarfs, novae, supernovae.

EDUCATION

University of California Santa Barbara, Santa Barbara, California USA

Department of Physics

Ph.D. Candidate, Physics, September 2010 (expected graduation date: June 2016)

• Advisor: Lars Bildsten

• Dissertation topic: Helium flashes on rotating white dwarfs

M.A., Physics, June 2013

Eastern Illinois University, Charleston, Illinois USA

B.S., Physics, May, 2010 B.A., Mathematics, May, 2010

Honors and Awards

Eastern Illinois University, Charleston, Illinois, USA

- Graduated Summa Cum Laude
- University Honors
- Departmental Honors in Mathematics (advisor: Leo Comerford)
- Various Departmental Scholarships in Mathematics and Physics
- Eastern Illinois University Lincoln Laureate

ACADEMIC EXPERIENCE

University of California Santa Barbara, Santa Barbara, California USA

Graduate Student

September, 2010 - present

Includes current Ph.D. research, Ph.D. and Masters level coursework and research projects. In addition to main research with Lars Bildsten on theoretical astrophysics, also did observational work with Andy Howell concerning superluminous supernovae. Volunteered to be Astronomy and Astrophysics webmaster.

Teaching Assistant

September 2010 - December, 2013

Taught various discussion sections and labs for undergraduate courses for majors and non-majors. Most recently assisted advisor in teaching a graduate course on stellar astrophysics, including coaching students through using an open source code to solve problems and do a research project.

- PHYS 3L Introductory Physics for Engineers Laboratory, Fall 2010 and Fall 2011.
- PHYS 132 Stellar Structure, Fall 2010 and Fall 2011.
- ASTRO 1 Introductory Astronomy, Winter 2011
- ASTRO 2 Introductory Cosmology, Spring 2011
- PHYS 1 Introductory Physics for Engineers, Winter 2012
- PHYS 133 Galaxies and Cosmology, Winter 2012
- PHYS 134 Observational Astrophysics, Spring 2012
- PHYS 232 Stellar Structure (Graduate), Fall 2013

Publications

Arcavi, I.; Wolf, William M.; Howell, D. A.; Bildsten, L.; Leloudas, G.; Hardin, D.; Prajs, S.; Perley, D. A.; Svirski, G.; Gal-Yam, A.; Katz, B.; McCully, C.; Cenko, S. B.; Lidman, C.; Sullivan, M.; Valenti, S.; Astier, P.; Balland, C.; Carlberg, R. G.; Conley, A.; Fouchez, D.; Guy, J.; Pain, R.; Palanque-Delabrouille, N.; Perrett, K.; Pritchet, C. J.; Regnault, N.; Rich, J.; and Ruhlmann-Kleider, V. Rapidly Rising Transients in the Supernova-Superluminous Supernova Gap. 2016, The Astrophysical Journal, Volume 819, Issue 1, articleid. 35, 22pp.

Soraisam, M. D.; Gilfanov, M.; Wolf, William M.; and Bildsten, L. Population of postnova supersoft X-ray Sources. 2016, The Monthly Notices of the Royal Astronomical Society, Volume 455, Issue 1, p.668-679. January 2016.

Cunningham T.; Wolf, William M.; and Bildsten, L. Photoionization Heating of Nova Ejecta by the Post-outburst Supersoft Source. 2015, The Astrophysical Journal, Volume 803, Issue 3, article id. 76, 7pp.

Tang, S.; Kaplan, David L.; Phinney, E. S.; Prince, Thomas A.; Breton, Rene P.; Bellm, E.; Bildsten, L.; Cao, Y.; Kong, A. K. H.; Perley, D. A.; Sesar, B.; Wolf, William M.; and Yen, T.-C. Identification of the Optical Counterpart *Fermi* Black Widow Millisecond Pulsar PSR J1544+4937. 2014, The Astrophysical Journal Letters, Volume 791, article id. L5, 5pp.

Tang, S.; Bildsten, L.; Wolf, William M.; Li, K. L.; Hong, A. K. H.; Cao, Y.; Cenko, B. S.; De Cia, A.; Kasliwal, M. M.; Kulkarni, S. R.; Laher, R. R., Masci; F., Nugent, P. E.; Perley, D. A.; Prince, T. A.; and Surace, J. An Accreting White Dwarf Near the Chandrasekhar Limit in the Andromeda Galaxy. 2014, The Astrophysical Journal, Volume 786, Issue 1, article id. 61, 8pp.

Wolf, William M.; Bildsten, L.; Brooks, J.; and Paxton, B. 2013. Hydrogen Burning on Accreting White Dwarfs: Stability, Recurrent Novae, and the Post-nova Supersoft Phase. 2013, The Astrophysical Journal, Volume 777, Issue 2, article id. 136, 15 pp.

Conference Presentations

Wolf, William M., Cunningham, T., Bildsten, & L. 2014. Photoionization Heating of Nova Ejecta. Physics of Cataclysmic and Compact Binaries. Columbia University, New York, USA, October 30 - November 2, 2014.

Wolf, William M., Tang, S., Bildsten, L., et al. 2014. Post-nova Supersoft Sources, Recurrent Novae, and the Fastest Recurrent Novae Yet Discovered. Type Ia Supernovae: Progenitors, Explosions, and Cosmology. University of Chicago, Chicago, USA, September 15-19, 2014.

Wolf, William M., Bildsten, L. 2013. Helium Flashes on Steadily Burning White Dwarfs. Thirteenth Annual Theoretical Astrophysics in Southern California Meeting, UCLA, Los Angeles, California, USA, December, 2013.

Wolf, William M., Bildsten, L., Brooks, J., and Paxton, B. 2013. Steady State Burning on White Dwarfs and Recurrent Novae. Observational Signatures of Type Ia Supernova Progenitors II, Lorentz Center, Leiden, The Netherlands, September 2013.

Wolf, William M., Bildsten, L., Brooks, J., and Paxton, B. 2012. MESA Models for Accreting White Dwarfs with Stable Burning. Twelfth Annual Theoretical Astrophysics in Southern California Meeting, Carnegie Observatories, Pasadena, California, USA, November, 2012.

- Computer Skills Programming Languages: Ruby, Python, Mathematica, IDL, Fortran 95, and C++
 - Markup Languages: LATEX, Markdown
 - Internet Tools: HTML5, CSS3, Javascript (JQuery, CoffeeScript), Bootstrap
 - Scientific Packages: Tioga (plotting package), Numpy, Scipy, Matplotlib
 - Scientific Codes: MESA, Cloudy
 - Operating Systems: Mac, Unix/Linux.
 - Version Control Systems: Git

Last Update: April 18, 2016