

MEREDITH DURBIN

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EDUCATION

- EXPECTED 2014 **Pomona College**
Bachelor of Arts in PHYSICS
Overall GPA 3.5/4.0; Major GPA 3.4/4.0
Senior Thesis: The Mid-Infrared RR Lyrae Period-Luminosity Relation
- AUGUST 2010 **Santa Rosa Junior College**
Associate of Sciences in NATURAL SCIENCES
Highest Honors

RESEARCH EXPERIENCE

- Carnegie Observatories** SUMMER 2013 - PRESENT
- Produced new light curves and period-luminosity relations for RR Lyrae variables in globular cluster ω Centauri using Warm Spitzer data
 - Checked residuals of period-luminosity relations for metallicity correlation
 - Will begin similar work on cluster M54 in spring 2014
- Pomona College Dept. of Physics & Astronomy** SUMMER 2012
- Operated 1-meter telescope at Table Mountain Observatory to obtain polarimetry data on quiescent blazars and polarized standard stars
 - Used data to characterize polarimeter performance & determine polarization of blazars

TEACHING ASSISTANTSHIPS

- Pomona College Dept. of Physics & Astronomy** SPRING 2013 - PRESENT
Teaching Assistant
- Assisted non-major astronomy students with homework sets and laboratory work, including telescope operation and imaging, software use, and data analysis
 - Assisted non-major physics students with laboratory work, including experimental setup, troubleshooting, and data analysis
- Scripps College & W.M. Keck Joint Sciences** SUMMER 2013
Tutor
- Tutored post-baccalaureate premedical students in introductory physics, including Newtonian mechanics, electricity & magnetism, thermodynamics, and topics in modern physics

SKILLS

PROGRAMMING	Working knowledge of Python (including Matplotlib, NumPy, and SciPy), Java, HTML/CSS, jQuery
SOFTWARE	Working knowledge of L ^A T _E X, Linux, Mathematica, Adobe Illustrator, InDesign, Dreamweaver Excellent knowledge of Adobe Photoshop, Microsoft Office, Mac OS X, IRAF/PyRAF

ACTIVITIES & INTERESTS

Co-founder, ALPhA (“Awesome Ladies in Physics and Astronomy”), fall 2013 - present

- Organized activities geared towards women studying physics at Pomona, including discussion sessions & lunches with female faculty members

Graphic designer & contributing artist, Pomona College PhysPhest: “A Night of Physics in the Arts”, spring 2013

- Designed publicity posters and contributed concept art of a black hole accretion disk, two collages of HST images, and a demonstration of tri-color image manipulation

Interests: science in fiction & media, modern & ballroom dance, theatre, travel

PUBLICATIONS

The Mid-Infrared RR Lyrae Period-Luminosity Relation

Durbin, Meredith; Scowcroft, Victoria; et al. In progress.

PRESENTATIONS

The Mid-Infrared RR Lyrae Period-Luminosity Relation

Durbin, Meredith; Scowcroft, Victoria; et al.

Contributed talk at APS CA/NV, Nov. 2013

Performance of the Savart-Plate Polarimeter on the Pomona College 1-Meter Telescope at Table Mountain

Durbin, Meredith; Zook, Alma; et al.

Poster presented at AAS 221, Jan. 2013

REFERENCES

Dr. Victoria Scowcroft
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Carnegie Observatories
813 Santa Barbara Street
Pasadena, California, 91101

Dr. Alma Zook
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