

KATHRYN V. LESTER

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Department of Physics & Astronomy

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EDUCATION

Georgia State University

Ph.D candidate in Astronomy

M.S. Physics, *in progress*

August 2014 - Present

Lehigh University

B.S. Astrophysics

May 2014

RESEARCH EXPERIENCE

Research Assistant at Georgia State University

August 2014 - Present

- Advisor: Dr. Doug Gies
- Resolving the orbit of nearby SB2's using the CHARA array.
- Photometric and spectroscopic analysis of EPIC 202062176, an eclipsing binary in the K2 C0 field.
- Photometric and spectroscopic analysis of BW Aqr, an eclipsing binary star with notable apsidal motion.

Undergraduate Research Assistant at Lehigh University

August 2013 - May 2014

- Advisor: Dr. Ginny McSwain
- Fit model spectra to three binary stars in the Cygnus OB2 association to determine the effective temperatures, surface gravities, and projected rotational velocities of the primary stars.

REU Research Assistant at the University of Wyoming

Summer 2013

- Advisor: Dr. Chip Kobulnicky
- Measured and analyzed the radial velocity shift of WIRO spectra in search of massive binary stars, as part of the Cygnus OB2 Radial Velocity Survey.

REFEREED PUBLICATIONS

To see my publication record on SAO/NASA ADS, *click here*.

1. "A Young Eclipsing Binary and its Luminous Neighbors in Sh 2-252E". **K. V. Lester**, D. R. Gies, Z. Guo. 2016, AJ, *in press*.
2. "Kepler Eclipsing Binaries with Stellar Companions". D. R. Gies, R. A. Matson, Z. Guo, **K. V. Lester**, J. A. Orosz, G. J. Peters. 2015, AJ, 150, 178
3. "Toward Complete Statistics of Massive Binary Stars: Penultimate Results from the Cygnus OB2 Radial Velocity Survey". H. A. Kobulnicky, D. C. Kiminki, M. J. Lundquist, J. Burke, J. Chapman, E. Keller, **K. V. Lester**, E. K. Rolen, E. Topel, et al. 2014, ApJS, 213, 34

OBSERVING EXPERIENCE

Apache Point Observatory

3.5m telescope. Sunspot, NM

8 nights - Echelle spectroscopy of binary stars using ARCES

Wyoming Infrared Observatory

2.3m telescope. Mt. Jelm, WY

15 nights - Longslit spectroscopy of binary star candidates

Hard Labor Creek Observatory

0.6m telescope. Rutlege, GA

7 nights - Photometry of eclipsing binaries and AGN

TEACHING EXPERIENCE

Lab Instructor at Georgia State University

August 2014 - present

- Teach and grade weekly introductory astronomy labs, ASTR 1010/1020.
- Total labs taught: 14

Grading Assistant at Lehigh University

Spring 2014

- Grade online homework and exams for introductory astronomy course.

CONFERENCE POSTERS

1. "Photometric & Spectroscopic Analysis of EPIC 202062176". **Lester, K. V.**, Gies, D. R., Guo, Z. 2016, presented at the 227th AAS Meeting in 2016.
2. "The Cygnus OB2 Radial Velocity Survey: Three new massive binaries MT216, MT234, MT485". **Lester, K. V.**, et al. 2014, presented at the 223rd AAS Meeting in 2014.

OUTREACH EXPERIENCE

Hard Labor Creek Observatory Volunteer

September 2014 - present

- Operate telescopes and answer questions from the public during monthly open houses.

Urban Life Observatory Volunteer

August 2014 - present

- Operate telescopes during observing night for astronomy lab students on-campus.

Workshop Volunteer

May 2015

IAU Symposium 314

- Assisted with workshop for local high school students building cereal box spectrographs.

Girl Scout Workshop

September 2014

Atlanta, GA

- Assisted with workshop activities, including building pinhole cameras.

APPLICABLE SKILLS

High Proficiency

IDL, IRAF, Microsoft Office, Windows, Mac OS X, L^AT_EX

Basic Proficiency

Python, PyKE, DS9, Linux, Period04, Photoshop

Foreign Languages

French (intermediate proficiency)