

Jared Alan Keown

Department of Physics & Astronomy
102 Natural Science Building
University of Louisville
Louisville, KY, USA 40292

Phone: (270) 922-1533
Fax: (502) 852-0742
Email: jakeow01@louisville.edu
Web: astro.uofl.net/keown

Education

B.S. Physics, University of Louisville, Louisville, KY, USA, expected May 2014
Concentration in Astronomy/Astrophysics
GPA: 3.915/4.000 with 122 completed credit hours

Research Experience

Senior Honors Thesis, University of Louisville, Louisville, KY, USA, August 2013 - present

Topic: *Infall as a Function of Position and Molecular Tracer in Dense Cores*

Advisors: Dr. Scott Schnee and Dr. Gerard Williger

Duties: Spectral line fitting using radiative transfer models in Python, organizing and writing results in thesis document, oral defense of project

NSF Research Fellowship, National Radio Astronomy Observatory, Charlottesville, VA, USA, Summer 2013

Topic: *Infall as a Function of Position and Molecular Tracer in Prestellar Cores*

Advisor: Dr. Scott Schnee

Duties: Writing and customizing spectral line analysis tools using Python, converting data from CLASS format, FITS file formatting in DS9, documenting results in project report

Undergraduate Research Assistant, University of Louisville, Louisville, KY, USA, August 2012 - May 2013

Topic: *High Energy Particle Physics Data Analysis from the BaBar Experiment at SLAC*

Advisor: Dr. David N. Brown

Duties: Statistical analyses using C++, plotting particle detection histograms using ROOT, constructing a cosmic ray detector to be used for physics outreach

NSF Research Fellowship, Bucknell University, Lewisburg, PA, USA, Summer 2012

Topic: *The Spatial Relationship Between Forming Stars and Their Dense Cores*

Advisor: Dr. Ned Ladd

Duties: Programming in Python, literature searches, database management, plotting data using GRACE, statistical calculations

Honors, Awards & Grants

University of Louisville

Conference Travel Grant from UofL Department of Physics & Astronomy, 2013

Conference Travel Grant from UofL College of Arts & Sciences Dean, 2013

William Marshall Bullitt Award in Astronomy, 2012

Honors Scholars Program, 2011 - present

Hallmark Trustee's Scholarship, 2010 - present

Kentucky Educational Excellence Scholarship, 2010 - present

Hancock County Chamber of Commerce Scholarship, 2010

Honor Societies

Sigma Pi Sigma Physics Honor Society, member, 2013 - present
Phi Eta Sigma National Honor Society, member, 2011 - present
Golden Key International Honour Society, member, 2011 - present
National Society of Collegiate Scholars, member, 2011 - present

Computer Skills

Proficient with PC (Linux and Windows operating systems) and Macintosh computers, Python, and Grace plotting tool. Some experience with C++, SAOImage DS9, Gildas CLASS, Latex, and Matlab.

Teaching Experience

Teaching Assistant, Introductory Astronomy Laboratory, Fall 2013

Professional Memberships

American Astronomical Society, junior member, 2011 - present
American Physical Society, junior member, 2011 - present

Professional Service

Sergeant at Arms, Society of Physics Students, UofL Chapter, 2013 - present
McCormick Observatory Public Nights Volunteer, University of Virginia, Charlottesville, VA, Summer 2013
Secretary, Society of Physics Students, UofL Chapter, 2012 - 2013

Professional Development

Freshmen LEAD Leadership Program, UofL, participant, 2010 - 2011
Sigma Alpha Lambda Leadership Organization, UofL Chapter, member, 2010 - present

Talks and Posters

"Infall as a Function of Position and Molecular Tracer in Dense Cores" Poster. 13th Annual Posters-at-the-Capitol, Frankfort, KY, USA, February 2014.
"Infall as a Function of Position and Molecular Tracer in Dense Cores" Poster. 223rd American Astronomical Society Meeting, National Harbor, MD, USA, January 2014.
"Infall as a Function of Position and Molecular Tracer in Prestellar Cores" Talk. Society of Physics Students Zone 8 Conference, University of Louisville, Louisville, KY, USA, October 2013.
"Sport Administration to Physics: Why I Changed My Major" Talk. Hancock County High School College Prospectives Session, Lewisport, KY, USA, October 2013.
"The Spatial Relationship Between Forming Stars and Their Dense Cores" Poster. Sigma Xi Student Research Symposium, Bucknell University, Lewisburg, PA, USA, July 2012.