Benjamin Rose

Physics PhD Candidate at Notre Dame OrcidID: 0000-0002-1873-8973

574.387.3453

brose3@nd.edu

Department of Physics

225 Nieuwland Science Hall

Notre Dame, Inidana 46556

Education Mater of Science in Physics 2016 University of Notre Dame, Notre Dame, Indiana Advisor: Peter Garnavich Bachelor of Science in Physics 2012 cum laude Whitworth University, Spokane, Washington Minor: Mathematics Observational Vatican Advanced Technology Telescope (VATT) Experience Mount Graham International Observatory June 27, 2014 - July 1, 2014 Activities & Graduate Physics Society (GPS) Annual Conference, Outreach Organizing Committee Member 2016 Graduate Physics Society, Executive Board Member 2015 - present American Astronomical Society (AAS), Junior Member 2014 - present Graduate Student Union (GSU), Physics Department Representative 2013 - 2014 American Physical Society (APS), Student Member 2011 - 2014 Notre Dame Summer Band 2013 & 2014 Whitworth University Wind Symphony 2009 - 2012 Whitworth Near Space Spring 2012 Worked with middle school students on high altitude balloon experiments Developed & built radiation, ozone, and temperature detector systems 2009 - 2011 Club Treasurer, Whitworth University Awards GSU Conference Presentation Grant, Notre Dame 2015 & 2016 2015 & 2016 Notebaert Professional Development Award, Notre Dame Poster Grant, GSU 6th Annual Research Symposium 2014 Presidential Scholarship, Whitworth University 2008 - 2012 Delbert E. Friesen Memorial Scholarship, Whitworth University 2011 - 2012 Talent Scholarship in Physics, Whitworth University 2008 - 2011 Talent Scholarship in Music, Whitworth University 2009 - 2012 Laureate Society, Whitworth University 4 semesters For a semester GPA of 3.75 or greater Computer Daily Use: Python, git, GitHub, Astropy, LATEX, Markdown, macOS Skills Proficient: Jupyter, pandas, Linux, Jekyll, HTML, CSS Basic Knowledge: Windows, C++, ROOT, Mathematica, MATLAB, Javascript Some Experience: LabVIEW, Apple Script, Julia, Parallel Computing, Swift

Teaching Experience **Individual Tutoring**

Fall 2015 & 2016

Including math methods, thermodynamics, and E & M

Intro. to Scientific Computing with Python

Spring 2016

Led basic programing help session and graded

Engineering Intro. Physics labs Pre-Med. Intro. Physics labs Spring & Fall 2013

Fall 2012 & Summer 2013

Oral Presentations Searching For a Cosmic-scale Dark Flow

2015 APS Prairie Section Meeting, Notre Dame

November 20, 2015

Finding A Cosmic Bulk Flow

2014 GPS Spring Conference, Notre Dame

April 28, 2014

Determining the Location of a Radioactive Source in Majorana Demonstrator REU Culminating Talks, Duke University

August 2, 2011

Poster Presentations Correlations Between Hubble Residuals and Local Stellar Populations of Type Ia Supernovae

AAS 229th Meeting, Grapevine, Texas

January 7, 2017

 $Correlating\ Type\ Ia\ Supernova\ Properties\ With\ Their\ Local\ Environment\ Using\ HST$

Snapshots of Host Galaxies

AAS 227th Meeting, Kissimmee, Florida

January 6, 2016

Prospects for Detecting a Cosmic Bulk Flow

AAS 225th Meeting, Seattle, Washington

January 6, 2015

Finding A Cosmic Bulk Flow

GSU 6th Annual Research Symposium, Notre Dame

February 27, 2014

Determining the Location of a Radioactive Source in Majorana Demonstrator APS, Division of Nuclear Physics, Michigan State University October 27, 2011

Publications

Detectability of Cosmic Dark Flow in the Type Ia Supernova Redshift-Distance Relation

Mathews, G.J., Rose, B. M., Garnavich, P., et al. 2016 ApJ 827 60

The New Eclipsing CV MASTER OTJ192328.22+612413.5: A Possible SW Sextantis Star

Kennedy, M. R., Callanan, P., Garnavich, P. M., et al. 2016, AJ, 152, 27

Constraints on the Birth of the Universe and Origin of Cosmic Dark Flow Mathews, G. J., Gangopadhyay, M. R., Garnavich, P., Rose, B. M., et al. 2015 Int. J. Mod. Phys. A, 30, 1545022

High-Amplitude, Rapid Photometric Variation of the New Polar MASTER OT J1321 Littlefield, C., Garnavich, P., Magno, K., et al. 2015, Information Bulletin on Variable Stars, 6129, 1