

Benjamin M. Rose

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Education	Doctor of Philosophy in Physics	expected 2018
	Master of Science in Physics University of Notre Dame, Notre Dame, Indiana Advisor: Professor Peter Garnavich	2016
	Bachelor of Science in Physics, <i>cum laude</i> Whitworth University, Spokane, Washington Minor: Mathematics	2012
Observational Experience	Ancillary Program PI, SDSS-IV MaNGA <i>Exploring a Possible Correlation Between Hubble Residuals and SN Ia Local Environments</i> Awarded 40 ancillary targets	2017
	Vatican Advanced Technology Telescope (VATT) Mount Graham International Observatory, Safford, Arizona 4 nights	June 2014
Professional Societies	American Astronomical Society (AAS) , Junior Member	2014 - present
	American Physical Society (APS) , Student Member	2011 - 2014
Activities & Outreach	Graduate Physics Society (GPS) Public Relations Chair	2017 - present
	Member	2012 - present
	Executive Board Member	2015 - 2017
	Annual Conference co-chair, for a conference of over 60 attendees	2016
	Graduate Student Union (GSU) I was the Physics Department representative and worked on issues regarding parking, health insurance, building remodels, and more	2013 - 2014
	Whitworth Near Space Assisted middle school students on two high altitude balloon experiments by assisting in building radiation, ozone and temperature sensors	Spring 2012
	Club Treasurer , Whitworth University	2009 - 2011
Awards	Lennox Graduate Fellowship , Notre Dame Recognizes achievements and promise as a graduate student in physics.	2017
	GSU Conference Presentation Grant , Notre Dame	2015 & 2016
	Notebaert Professional Development Award , Notre Dame	2015 & 2016
	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

Computer Skills	Daily Use: Python, git, GitHub, Astropy, L ^A T _E X, Markdown, macOS, numpy, scipy Proficient: Jupyter Notebook, Jekyll, HTML, CSS, Wordpress, TravisCI, pytest, codcov, emcee Competent: pandas, Linux, Windows
Open Source Contributions	scipy documentation update of limitation in <code>integrate.quad</code> accepted sep documentation update accepted emcee submitted a documentation update astropy reported an issue in world coordinate system utility
Teaching Experience	Introduction to Scientific Computing with Python Summer 2017 Lead instructor covering an introduction to python and computational methods for the Notre Dame REU program Physics GRE Preparation Course Summer 2017 Solo instructor for a review course of the material on the Physics GRE exam for the Notre Dame REU program Introduction to Scientific Computing with Python Spring 2016 Taught basic programming help session and graded assignments Engineering Introduction Physics Labs Spring & Fall 2013 Pre-Medical Introduction Physics Labs Fall 2012 & Summer 2013 Supplemental Instruction Leader Fall 2011 & Spring 2012 Led a group study session of introductory physics material with a focus on active learning techniques
Oral Presentations	3 <i>Searching For a Cosmic-scale Dark Flow</i> , November 20, 2015, 2015 APS Prairie Section Meeting, Notre Dame, Indiana 2 <i>Finding A Cosmic Bulk Flow</i> , April 28, 2014, 2014 GPS Spring Conference, Notre Dame, Indiana 1 <i>Determining the Location of a Radioactive Source in MAJORANA DEMONSTRATOR</i> , August 2, 2011, REU Culminating Talks, Duke University,
Poster Presentations	5 <i>Correlations Between Hubble Residuals and Local Stellar Populations of Type Ia Supernovae</i> , January 7, 2017, AAS 229th Meeting, Grapevine, Texas 4 <i>Correlating Type Ia Supernova Properties With Their Local Environment Using HST Snapshots of Host Galaxies</i> , January 6, 2016, AAS 227th Meeting, Kissimmee, Florida 3 <i>Prospects for Detecting a Cosmic Bulk Flow</i> , January 6, 2015, AAS 225th Meeting, Seattle, Washington 2 <i>Finding A Cosmic Bulk Flow</i> , February 27, 2014, GSU 6th Annual Research Symposium, Notre Dame, Indiana 1 <i>Determining the Location of a Radioactive Source in MAJORANA DEMONSTRATOR</i> , October 27, 2011, APS, Division of Nuclear Physics, Michigan State University
Refereed Publications <i>h-index = 2</i>	4 Mathews, G.J., Rose, B. M. , Garnavich, P., et al. 2016, <i>Detectability of Cosmic Dark Flow in the Type Ia Supernova Redshift-Distance Relation</i> , ApJ, 827, 60 3 Kennedy, M. R., Callanan, P., Garnavich, P. M., et al. 2016, <i>The New Eclipsing CV MASTER OTJ192328.22+612413.5: A Possible SW Sextantis Star</i> , AJ, 152, 27 2 Mathews, G. J., Gangopadhyay, M. R., Garnavich, P., Rose, B. M. , et al. 2015, <i>Constraints on the Birth of the Universe and Origin of Cosmic Dark Flow</i> , International Journal of Modern Physics A, 30, 1545022 1 Littlefield, C., Garnavich, P., Magno, K., et al. 2015, <i>High-Amplitude, Rapid Photometric Variation of the New Polar MASTER OT J1321</i> , Information Bulletin on Variable Stars, 6129, 1