

Riley McGlasson

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Education

Purdue University <i>PhD, Planetary Sciences, 3.93/4.0</i>	West Lafayette, IN 2020 – Present
Macalester College <i>Bachelor of Arts in Physics (with Astronomy emphasis) and Mathematics minor, 3.77/4.0</i>	Saint Paul, MN 2016 – 2020
Acquincum Institute of Technology, Budapesti Műszaki Egyetem <i>Semester in Computer Science Abroad, 4.67/5.0</i>	Budapest, Hungary Fall 2018

Research Experience and Professional Preparation

Purdue University <i>Advisor: Dr. Ali Bramson</i> <ul style="list-style-type: none">Analyzing SHARAD radar observations of ice deposits in Martian craters.	West Lafayette, IN August 2020 – Present
Astronomy Ranger Intern <i>Advisors: Dr. Anil Seth and Todd Cullins</i> <ul style="list-style-type: none">Developed and presented astronomy interpretive programs.Led educational “telescope tours” of planets, constellations, and deep sky objects to visitors of Bryce Canyon National Park.Led monthly full moon hikes into Bryce Canyon while educating hikers about the science and cultural importance of our moon.Presented “A Message to the Universe”, a public talk about the Voyager missions, at the Bryce Canyon Annual Astronomy Festival.	Bryce Canyon National Park, Utah Summer 2019
Arecibo Observatory REU <i>Advisors: Dr. Sean Marshall and Dr. Flaviane Venditti</i> <ul style="list-style-type: none">Developed a shape model for the potentially hazardous asteroid Midas.Performed approximately 50 radar observations of near-Earth asteroids using the Arecibo 305 meter radio telescope.	Arecibo, Puerto Rico Summer 2018
University of Alabama in Huntsville/NASA MSFC Heliophysics REU <i>Advisor: Dr. Navdeep Panesar</i> <ul style="list-style-type: none">Studied the magnetic origins of solar coronal jets.	Huntsville, AL Summer 2017
First Characterization of the Neutral ISM in Two Local Volume Dwarf Galaxies <i>Advisor: Prof. John Cannon</i> <ul style="list-style-type: none">Imaged two nearby dwarf galaxies in the HI 21cm spectral line.	Saint Paul, MN Spring 2017
Arecibo Pisces-Perseus Supercluster Survey <i>Advisor: Prof. John Cannon</i> <ul style="list-style-type: none">Determined cluster membership for galaxies around the Pisces-Perseus Supercluster.	Saint Paul, MN Spring 2017

Peer-Reviewed Publications

- McGlasson, R. A., Marshall, S. E., Venditti, F., et al. (in press). Radar and Lightcurve Observations and a Physical Model of Potentially Hazardous Asteroid 1981 Midas. *The Planetary Science Journal*.
- McGlasson, R. A., Panesar, N. K., Sterling, A. C., Moore, R. L., 2019. Magnetic Flux Cancellation as the Trigger Mechanism of Solar Coronal Jets. *The Astrophysical Journal*, 882, 16.
- Cannon, J.M., Shen, Z., et al. (incl. McGlasson, R. A.), 2018. Delayed Stellar Mass Assembly in the Low Surface Brightness Dwarf Galaxy KDG 215. *The Astrophysical Journal Letters*, 864, L14.
- Bralts-Kelly, L., Bulatek, A. M., et al. (incl. McGlasson, R. A.), 2017. First Characterization of the Neutral ISM in Two Local Volume Dwarf Galaxies. *The Astrophysical Journal Letters*, 848, L10.

Conference Posters and Presentations

* Indicates McGlasson is presenting author

† Indicates oral presentation

1. *†**McGlasson, R. A.**, Bramson, A. M., Morgan, G. A., Sori, M. M., (2021). Subsurface Radar Observations of Outlier Polar Ice Deposits on Mars. 52nd Lunar and Planetary Science Conference, #1649.
2. Repp, D. W., Marshall, S. E., et al. (incl. **McGlasson, R. A.**), (2020). Shape modeling of potentially hazardous asteroid 2015 DP155 from radar and lightcurve observations. 51st Lunar and Planetary Science Conference, #2897.
3. Taylor, P. A., Rivera-Valentín, E. G., (incl. **McGlasson, R. A.**), (2019). Radar and Optical Observations of Equal-Mass Binary Near-Earth Asteroids (190166) 2005 UP156 and 2017 YE5. 50th Lunar and Planetary Science Conference, #2945.
4. ***McGlasson, R. A.**, Marshall, S. E., et al., (2019). Shape Model of Potentially Hazardous Asteroid (1981) Midas from Radar and Lightcurve Observations. American Astronomical Society Meeting #233, 255.03.
5. Taylor, P. A., Brozovic, M., et al. (incl. **McGlasson, R. A.**), (2018). Radar and Optical Observations of Equal-Mass Binary Near-Earth Asteroid 2017 YE5. American Astronomical Society Division of Planetary Sciences meeting #50, 508.07.
6. Marshall, S. E., Cobb, A., et al. (incl. **McGlasson, R. A.**), (2018). Using Bayesian Optimization to Find Asteroids' Pole Directions. American Astronomical Society Division of Planetary Sciences meeting #50, 505.01D.
7. ***McGlasson, R. A.**, Panesar, N. K., Sterling, A. C., Moore, R. L., (2017). Magnetic Flux Cancellation as the Trigger Mechanism of Solar Coronal Jets. American Geophysical Union Fall Meeting 2017, #SH43A-2796.

Awards and Grants

Purdue Student Service-Learning Grant:	2021
<i>In support of development of the Astronomy on Tap program</i>	
NSF Graduate Research Fellowship Program, Honorable Mention:	2021
Lunar and Planetary Institute Career Development Award:	2021
<i>52nd Lunar and Planetary Science Conference</i>	
Chambliss Astronomy Achievement Award Student Prize:	2019
<i>American Astronomical Society 233rd meeting</i>	
Minnesota Space Grant Consortium Scholarship:	2018
Mobil Scholarship:	Fall 2017 – Spring 2020
DeWitt Wallace Distinguished Scholarship:	Fall 2016 – Spring 2020

Technical Skills

Python | IDL | Latex | Java | Perl | Mathematica | Bash | Microsoft Office | ArcGIS

Teaching Experience

EAPS 100: Planet Earth Teaching Assistant:	Spring 2022
○ Undergraduate TA for Purdue introductory Earth science class	
EAPS 111: Physical Geology Teaching Assistant:	Fall 2020, Fall 2021
○ Undergraduate Lab TA for Purdue introductory geology class	
Astronomy Preceptor:	Spring 2020
○ Undergraduate preceptor for Macalester upper-level observational astronomy course	
Astronomy Preceptor:	Spring 2019
○ Undergraduate preceptor for Macalester introductory Modern astronomy course	

Volunteer Service and Outreach

Astronomy on Tap Organizer: Established and serve as primary organizer for the Lafayette, IN satellite series of "Astronomy on Tap".	<i>Fall 2021 – Present</i>
Radio Host: Radio Astronomy – Macalester College's astronomy talk show	<i>Fall 2017 – Spring 2020</i>
Host and Telescope Operator: Macalester College Public Observing Nights	<i>Fall 2017, Fall 2019</i>
Arecibo Observatory Noche de Observación: "Ask a Scientist" booth	<i>Summer 2018</i>
NASA in the Park Presenter: Presented vacuum chamber experiments to the public at the annual NASA in the Park event, Huntsville, AL	<i>June 2017</i>
Astronomy Guest Speaker: Minnetonka Middle School East 8th grade science classes	<i>Spring 2018</i>
Astronomy Presenter: Eden Prairie High School AP Physics classes	<i>Spring 2017</i>
Destination Imagination Volunteer: judge for Destination Imagination, a global creative problem solving competition	<i>January 2017 – January 2020</i>