

Lilly Bralts-Kelly

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Education

Macalester College

B.A. Physics (Astronomy), Mathematics
Cumulative GPA: 3.98/4.00

August 2016 – May 2020 (expected)

Relevant Experience

La Serena School for Data Science

AURA Observatory in Chile.

Intensive ten-day school on data handling in astronomical and biological environments.

August 2018

NSF REU

University of Michigan, advised by Dr. Joshua Spitz.

Cosmic ray shower simulations for a liquid scintillator neutrino experiment.

June 2018 – August 2018

Undergraduate Research Assistantship

Macalester College, advised by Dr. John Cannon.

Neutral gas dynamics in dwarf galaxies; see Refereed Publications.

January 2017 – May 2018

NSF REU

Montana State University, advised by Dr. Jiong Qiu.

Imaging and analysis of magnetic reconnection in solar flares.

May 2017 – August 2017

Refereed Publications

- [2] “Delayed Stellar Mass Assembly in the Low Surface Brightness Dwarf Galaxy KDG215.”
Cannon, J. M., Shen, Z., McQuinn, K. B. W., Bartz, J., **Bralts-Kelly, L.**, *et al.*
Astrophysical Journal Letters, 2018, 864, L14. [arXiv:1808.07108](#)
- [1] “First Characterization of the Neutral ISM in Two Local Volume Dwarf Galaxies.”
Bralts-Kelly, L., Bulatek, A. M., Chinski, S., *et al.*
Astrophysical Journal Letters, 2017, 848, L10. [arXiv:1709.10161](#)

Posters and Presentations

- [4] “Simulating the Cosmic Ray Background for a Liquid Scintillator Neutrino Experiment.”
Poster: **Bralts-Kelly, L.**, Spitz, J., & Jordan, J. 2018, Macalester College Student Research Showcase.
- [3] “Modeling Cosmic Rays for a Liquid Scintillator Neutrino Experiment.”
Oral presentation: **Bralts-Kelly, L.** 2018, University of Michigan REU Symposium.
- [2] “Spatial and Spectral Evolution of Solar Flares in the HXRs and Ultraviolet.”
Poster: **Bralts-Kelly, L.**, & Qiu, J. 2017, Macalester College Student Research Showcase.
- [1] “HXR Spatial and Spectral Evolution of Solar Flares.”
Oral presentation: **Bralts-Kelly, L.** 2017, Montana State University Solar Physics REU.

Teaching

Tutor, Department of Physics & Astronomy, *Macalester College*

September 2017 – present

Preceptor, MATH 312: Differential Equations, *Macalester College*

Spring 2018

Preceptor, PHYS 113: Modern Astronomy I, *Macalester College*

Spring 2018

Grader, PHYS 227: Principles of Physics II, *Macalester College*

Fall 2017

Outreach and Leadership

Council Representative, High Power Rocketry at Macalester

October 2018 – present

Coordinator, Macalester College Public Observing Nights

September 2018 – present

President, Macalester College Physics & Astronomy Club

September 2018 – present

Treasurer, Macalester College Physics & Astronomy Club

September 2017 – May 2018

Honors and Awards

La Serena School for Data Science Scholarship

2018

Dr. Russell B. Hastings Endowed Scholarship, *Macalester College*

2017 – 2019

Dewitt Wallace Distinguished Scholarship, *Macalester College*

2016 – 2019

Minnesota Space Grant Consortium Scholarship

2017 – 2018