

Margaret Verrico
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Education

University of Illinois Urbana-Champaign, Urbana, Illinois 2022-Present
Ph.D. Student in Astronomy
Graduate Teaching Certificate 2023

University of Pittsburgh, Pittsburgh, Pennsylvania 2017-2021
B.S. – Physics, magna cum laude

Research

Galaxy Evolution and Changing-Look AGN

Advisor: Dr. Decker French, 2022 - Present

I am working with Dr. Decker French to constrain the host galaxy properties of changing-look AGN, a type of AGN which exhibits extreme variations on month-to-year timescales. These changing-look AGN call into question our current unified model of AGN behavior, and their relationship with their host galaxies will illuminate the relationship between AGN and the end of star formation in galaxies.

Galaxy Evolution and Post-Starburst Galaxies

Advisor: Dr. Rachel Bezanson, 2020 - 2022

I worked with Dr. Rachel Bezanson and graduate student David Setton to analyze the structures of ~140 intermediate-redshift post-starburst galaxies from the SQuIGGLE survey. We traced the morphological changes that occur while a galaxy transitions from a star-forming spiral galaxy to a quiescent elliptical galaxy.

Awards and Scholarships

NASA Pennsylvania Space Grant, Spring 2019, Summer 2020, Fall 2020, Spring 2021
University of Pittsburgh full tuition scholarship, 2017-2021

Teaching

Teaching Assistant, *Solar System and Worlds Beyond*, Spring 2023
Teaching Assistant, *Stars and Galaxies*, Fall 2022
Science Instructor, People's Park Summer Camp, Summer 2022
Private Tutor, *Basic Physics for Science and Engineering II*, Spring 2019
Undergraduate Teaching Assistant, *Basic Physics for Science and Engineering I*, Fall 2018

Publications

1. *Merger Signatures are Common, but not Universal, in Massive, Recently-Quenched Galaxies at $z \sim 0.7$*

Margaret Verrico, David J. Setton, Rachel Bezanson, Jenny E. Greene, Katherine A. Suess, Andy D. Goulding, Justin S. Spilker, Mariska Kriek, Robert Feldmann, Desika Narayanan, Vincenzo Donofrio, Gourav Khullar

Submitted to The Astrophysical Journal, December 2022.

2. *Star Formation Suppression by Tidal Removal of Cold Molecular Gas from an Intermediate-Redshift Massive Post-Starburst Galaxy*

Justin S. Spilker, Katherine A. Suess, David J. Setton, Rachel Bezanson, Robert Feldmann, Jenny E. Greene, Mariska Kriek, Sidney Lower, Desika Narayanan, **Margaret Verrico**
The Astrophysical Journal, 2022.

3. *The Origin and Evolution of Compact Massive $z \sim 0.7$ Post-Starburst Galaxies in the SQuIGGLE Survey*

David J. Setton, **Margaret Verrico**, Rachel Bezanson, Jenny E. Greene, Katherine A. Suess, Robert Feldmann, Andy D. Goulding, Khalil Hall-Hooper, Erin Kado-Fong, Mariska Kriek, Desika Narayanan, Justin S. Spilker

The Astrophysical Journal, 2022.

4. *SQuIGGLE: Studying Quenching in Intermediate- z Galaxies— Gas, Angular Momentum, and Evolution*

Katherine A. Suess, Mariska Kriek, Rachel Bezanson, Jenny E. Greene, David Setton, Justin S. Spilker, Robert Feldmann, Andy D. Goulding, Benjamin D. Johnson, Joel Leja, Desika Narayanan, Khalil Hall-Hooper, Qiana Hunt, Sidney Lower, and **Margaret Verrico**

The Astrophysical Journal, 2021.

5. *Now you see it, now you don't: Star formation truncation precedes the loss of molecular gas by ~ 100 Myr in massive post-starburst galaxies at $z \sim 0.6$*

Rachel Bezanson, Justin S. Spilker, Katherine A. Suess, David J. Setton, Robert Feldmann, Jenny E. Greene, Mariska Kriek, Desika Narayanan, and **Margaret Verrico**

The Astrophysical Journal, 2021.

Poster Presentations

1. *Mass-Size Relation of Post-Starburst Galaxies from the SQuIGGLE Survey*

Margaret Verrico, David J. Setton, Rachel Bezanson

Undergraduate Poster Session Spring 2019

University of Pittsburgh Department of Physics and Astronomy