# Margaret E. Verrico

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# **Education**

University of Illinois Urbana-Champaign, Urbana, Illinois 2022-Present

Ph.D. Candidate in Astronomy, degree in progress

M.S. in Astronomy, August 2024

CITL Graduate Teaching Certificate 2023, Graduate College Mentoring Certificate 2024

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

# **Awards and Scholarships**

AAS FAMOUS Grant Awardee, Summer 2025

Center for Astrophysical Surveys Graduate Fellowship, Fall 2024–Summer 2025

NSF Graduate Research Fellowship Honorable Mention, Spring 2024

NASA Illinois Space Grant Graduate Fellowship, Fall 2023–Spring 2024

NASA Pennsylvania Space Grant, Spring 2019, Summer 2020, Fall 2020, Spring 2021

University of Pittsburgh full tuition academic scholarship, 2017–2021

#### **First & Second Author Publications**

- 1. *Modeling Star Formation Histories of Changing-Look AGN Host Galaxies with Prospector*, Verrico, M.E.; French, K.D.; Suess, K.A.; Agrawal, T., et al., The Astrophysical Journal, in press 2025 (arXiv:2506.19162)
- 2. Merger Signatures are Common, but not Universal, in Massive, Recently Quenched Galaxies at  $z \sim 0.7$ , Verrico, M. E., Setton, D. J., Bezanson, R., et al., 2023, The Astrophysical Journal, 949, 5
- 3. The Compact Structures of Massive  $z \sim 0.7$  Post-starburst Galaxies in the SQuIGGLE Sample, Setton, D. J., Verrico, M., Bezanson, R., et al., 2022, The Astrophysical Journal, 931, 51

### **Co-Authored Publications**

- 4. Radio Variability in Recently-Quenched Galaxies: The Impact of TDE or AGN Driven Outflows, French, K. D., Nyland, K., Patil, P., et al. incl. Verrico, M. E., 2025, submitted to the Astrophysical Journal
- 5. *Unusually High Gas-to-Dust Ratios Observed in High-Redshift Quiescent Galaxies*, Spilker, J. S., Whitaker, K. E., Narayanan, D., et al. incl. Verrico, M. E., 2025, submitted to the Astrophysical Journal

- 6. Cold gas in a post-starburst pair at  $z \sim 1.4$ : major mergers as a pathway to quenching in the HeavyMetal survey, Suess, K. A., Beverage, A. G., Kriek, M., et al. incl. Verrico, M. E., 2025, submitted to the Astrophysical Journal Letters
- 7. AT 2020nov: Evidence for Disk Reprocessing in a Rare Tidal Disruption Event, Earl, N., French, K. D., Ramirez-Ruiz, E., et al. incl. Verrico, M. E., 2025, The Astrophysical Journal, 983, 28
- 8. A Large-Scale Search for Photometrically Variable AGNs in Dwarf Galaxies Using the Young Supernova Experiment, Messick, A., Baldassare, V., Jones, D. O., et al. incl. Verrico, M. E., 2025, arXiv e-prints, arXiv:2504.00971
- 9. Shocked POststarburst Galaxy Survey. IV. Outflows in Shocked Poststarburst Galaxies Are Not Responsible for Quenching, Fodor, A., Tomko, T., Braun, M., et al. incl. Verrico, M. E., 2025, The Astrophysical Journal, 979, 94
- Modeling Star Formation Histories of Post Starburst Galaxies with BAGPIPES, Crocker, D. L., French, K. D., Tripathi, A., & Verrico, M. E., 2023, Research Notes of the American Astronomical Society, 7, 183
- 11. Fading AGNs in Poststarburst Galaxies, French, K. D., Earl, N., Novack, A. B., et al. incl. Verrico, M. E., 2023, The Astrophysical Journal, 950, 153
- 12. Star Formation Suppression by Tidal Removal of Cold Molecular Gas from an Intermediate-redshift Massive Post-starburst Galaxy, Spilker, J. S., Suess, K. A., Setton, D. J. incl. Verrico, M. E., et al., 2022, The Astrophysical Journal, 936, L11
- 13. Now You See It, Now You Don't: Star Formation Truncation Precedes the Loss of Molecular Gas by 100 Myr in Massive Poststarburst Galaxies at z ~ 0.6, Bezanson, R., Spilker, J. S., Suess, K. A., et al. incl. Verrico, M. E., 2022, The Astrophysical Journal, 925, 153
- 14. *SQuIGGLE: Studying Quenching in Intermediate-z Galaxies-Gas, AnguLar Momentum, and Evolution,* Suess, K. A., Kriek, M., Bezanson, R., et al. incl. Verrico, M. E., 2022, The Astrophysical Journal, 926, 89

### **Talks and Poster Presentations**

- 1. Catching Changing-Look AGN Transitions with the Zwicky Transient Facility, Margaret Verrico, K. Decker French; Talk, Center for AstroPhysical Surveys Seminar, Summer 2025, University of Illinois Urbana-Champaign, Urbana-Champaign, IL, USA
- 2. Modeling Star Formation Histories of Changing-Look AGN Host Galaxies with Prospector, Margaret Verrico, K. Decker French, et al.; Talk, X-ray Quasi-Periodic Eruptions & Repeating Nuclear Transients, Summer 2025, European Space Astronomy Centre (ESAC), Madrid, Spain
- 3. *Modeling Star Formation Histories of Changing-Look AGN Host Galaxies with*Prospector, Margaret Verrico, K. Decker French, et al.; Poster, European Astronomical Society Annual Meeting, Summer 2025, University College Cork, Cork, Ireland
- 4. Merger Signatures are Common, but not Universal, in Massive, Recently-Quenched Galaxies at z ~ 0.7, Margaret Verrico, David J. Setton, et al., Poster, European Astronomical Society Annual Meeting, Summer 2025, University College Cork, Cork, Ireland
- 5. Constraining Changing-Look AGN Origins with Host Galaxy Studies, Margaret Verrico, K. Decker French, et al.; Talk, 246th Meeting of the AAS, Summer 2025, Anchorage, AK

- 6. Star-Formation Histories of Changing-Look AGN Host Galaxies, Margaret Verrico, K. Decker French, et. al.; Poster, Transients From Space Workshop, Spring 2025, Space Telescope Science Institute, Baltimore, MD
- 7. Star-Formation Histories of Changing-Look AGN Host Galaxies, Margaret Verrico, K. Decker French; Talk, Tidal Disruption Events and Nuclear Transients: Entering the Data-Rich Era, Fall 2024, Aquila Atlantis hotel, Heraklion, Crete, Greece
- 8. Star-Formation Histories of Changing-Look AGN Host Galaxies, Flash Talk, Young Astronomers on Galactic Nuclei, Fall 2023, Istituto di Astrofisica Spaziale e Fisica Cosmica, Palermo, Italy
- 9. Star-Formation Histories of Changing-Look AGN, Talk, Journal Club, Fall 2023, University of Illinois Urbana-Champaign, Champaign, IL, USA
- 10. *Merger Signatures in Post-Starburst Galaxies at z~0.7*, Talk, Journal Club, Spring 2023, University of Illinois Urbana-Champaign, Champaign, IL, USA

# **Teaching**

Counselor and Activity Lead, UIUC Girls' Astronomy Summer Camp, Summer 2023–Present Research Mentor for Tanay Agrawal, Astronomy sophomore, Spring 2024–Present Teaching Assistant, *Solar Systems 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

#### **Proficiencies**

Remote observing on DECam

Use of the National Center for Supercomputing Applications campus cluster at UIUC Prospector stellar population synthesis software

GALFIT3 and GALFITM galaxy imaging analysis software

#### **Service & Outreach**

Research mentor for UIUC undergraduate Tanay Agrawal, Spring 2024–Present Astrobites contributor, Spring 2025–Present

Science Olympiad Division B Event Coordinator, Spring 2023–Present Science Advances Co-Reviewer, Spring 2025

"Galaxies: From Elliptical to Spiral," public talk, Martz-Kohl Observatory, February 2025

"When Stars Explode!" first grade classroom Q&A, Dr. Howard Elementary, February 2025

Girls' Astronomy Summer Camp Director, Summer 2023–Summer 2024

Undergraduate Research Apprenticeship Program Mentor, Spring 2024

Society for Equity in Astronomy undergraduate mentor, Fall 2023–Present

Society for Equity in Astronomy Chair, Fall 2023–Summer 2024