# Vincenzo (Vinny) R. D'Onofrio

# NRAO STUDENT OBSERVING SUPPORT PROGRAM FELLOW donofr19@tamu.edu | Website | ORCID

# **EDUCATION**

Texas A&M University

College Station, TX

Expected May 2027

Ph.D. Astronomy

• Advisor: Dr. Justin Spilker

• Research interest(s): Higher-redshift galaxy evolution, radio interferometry

M.S. Astronomy

May 2025

• GPA: 3.92/4.00

• Project: Quenching via Tidal Removal of Cold Gas in Intermediate-z Massive Post-starburst Galaxies

# Michigan State University

East Lansing, MI

May 2022

B.S. AstrophysicsGPA: 3.92/4.00

• Majors: Astrophysics, Physics

# RESEARCH POSITIONS/EXPERIENCE

Graduate Student (Advisor: Dr. Justin Spilker)	August 2022 – Present
Texas A&M University	$College\ Station,\ TX$
NSF REU Intern (Advisor: Dr. Juergen Ott)	May 2021 – October 2021
National Radio Astronomy Observatory	$Socorro, \ NM \ (Remote)$
Student Research Assistant (Advisor: Dr. Kaitlin Cook)	June $2020 - May 2022$
National Superconducting Cyclotron Laboratory	$East\ Lansing,\ MI$
Student Research Assistant (Advisor: Dr. Laura Chomiuk)	August $2021 - \text{May } 2022$
Michigan State University Observatory Research Program	$East\ Lansing,\ MI$
Research Assistant (Advisor: Dr. Daniel Rathbun)	April 2019 – August 2019
Bionics and Vision Lab, Henry Ford Health System	$Detroit,\ MI$

# Honors and Awards

NRAO Student Observing Support Program Fellowship (\$40k)	November 2024
NSF Graduate Research Fellowship Program, Honorable Mention	April 2024
Texas Space Grant Consortium Graduate Fellowship (\$5k)	December 2023
NSF Research Experiences for Undergraduates (~\$7k)	June 2021
MSU College of Natural Science Undergraduate Research Support Scholarship (\$1k)	January 2021

# **Publications**

# First-Author

- 1. **D'Onofrio, V.**, et al. (2025). "Timing the Onset of Radio-Mode Feedback with  $z \sim 0.7$  Post-Starbursts." In preparation.
- 2. **D'Onofrio, V.**, et al. (2025). "Quenching Through Tidal Gas Removal: Molecular Gas and Star Formation in Tidal Tails of  $z \sim 0.7$  Post-Starburst Galaxies." Submitted to ApJ.

# Co-Author

- 1. Zhu, P., et al. (incl. D'Onofrio, V.) (2025). "SQuIGGLE: Observational Evidence of Low Ongoing Star Formation Rates in Gas-rich Post-starburst Galaxies." ApJ, 981, 60.
- 2. Verrico, M., et al. (incl. D'Onofrio, V.) (2023). "Merger Signatures are Common, but not Universal, in Massive, Recently Quenched Galaxies at  $z \sim 0.7$ ." ApJ, 949, 5.

#### Invited

1. **D'Onofrio, V.,** et al. "Tidal Removal of Cold Molecular Gas in z∼0.7 Post-Starburst Galaxies: A Qualitatively New Quenching Mechanism," Texas A&M Nuclear-Astro Seminar, College Station, TX, May 24, 2024.

# Contributed

- 1. **D'Onofrio**, **V.**, et al. "Probing Star Formation Suppression with Higher-z Post-Starbursts," Texas A&M Astrosymposium, College Station, TX, August 15, 2024.
- 2. **D'Onofrio**, **V.**, et al. "Tidal Removal of Cold Molecular Gas in z∼0.7 Post-Starburst Galaxies: A Qualitatively New Quenching Mechanism," McMaster University Star Formation Workshop, Hamilton, ON, August 14, 2024.
- 3. **D'Onofrio, V.,** et al. "Tidal Removal of Cold Molecular Gas in z~0.7 Post-Starburst Galaxies: A Qualitatively New Quenching Mechanism," STScI Spring Symposium 2024, Baltimore, MD, April 19, 2024.
- 4. **D'Onofrio**, **V.**, et al. "Quenching in Intermediate-Redshift Massive Post-Starburst Galaxies," Texas A&M Astrosymposium, College Station, TX, August 17, 2023.
- 5. **D'Onofrio**, V., et al. "Molecular Gas Toward Sagittarius B2: The Galactic Center's Complex Giant Molecular Cloud," Texas A&M Astrosymposium, College Station, TX, August 18, 2022.
- 6. **D'Onofrio**, V., et al. "Characterizing Molecular Gas Towards Sagittarius B2: The Galactic Center's Complex Giant Molecular Cloud," 2021 NRAO/GBO Summer Student Symposium, virtual participation, August 13, 2021.

# **Public**

1. D'Onofrio, V. "Why You Shouldn't Go to Mars," Astronomy on Tap, Bryan, TX, August 23, 2023.

#### Other

- 1. **D'Onofrio, V.,** et al. "Star Formation Quenching in Intermediate-Redshift Massive Post-Starburst Galaxies," Texas A&M Exgal Group Meeting, College Station, TX, April 11, 2024.
- 2. **D'Onofrio**, **V.**, et al. "Molecular Gas Toward Sagittarius B2: The Galactic Center's Complex Giant Molecular Cloud," MSU Society of Physics Students Coffee Breaks, East Lansing, MI, November 11, 2021.

#### Awarded Proposals

# **Principal Investigator**

- 1. ALMA Cycle 11 2024.1.01252.S (9.8 hours): Diffuse or Dense: Probing the Physical State of Massive Gas Reservoirs in z∼0.7 Quenched Galaxies (PI: V. D'Onofrio)
- 2. VLA Semester 24B VLA/24B-451 (21.0 hours): Measuring Jet Ages to Test Radio AGN Feedback with Massive z∼0.7 Post-Starbursts (PI: V. D'Onofrio)

### Co-Investigator

- 1. **ALMA Cycle 11** 2024.1.00216.S (13.1 hours): Timing the Onset of Unexpected Dust Destruction using High-Redshift Post-Starburst Galaxies (PI: J. Spilker)
- 2. ALMA Cycle 11 w/ JWST Cycle 3 2024.1.01064.S/JWST-GO-06719 (15.5/4.7 hours): Mapping Cold Gas and Star Formation in Gas Rich Post-Starburst Galaxies Near Cosmic Noon (PI: D. Setton)
- 3. **ALMA Cycle 10** 2023.1.00948.S (13.1 hours): Timing the Onset of Unexpected Dust Destruction using High-Redshift Post-Starburst Galaxies (PI: J. Spilker)
- 4. **ALMA Cycle 10** 2023.1.01012.S (12.1 hours): Does Molecular Gas Survive Quenching Near Cosmic Noon? (PI: D. Setton)

# Leadership & Outreach

Coordinator	February 2025 – Present
Mentoring and Advising Graduates in an Inclusive Community (MAGIC)	Texas A&M University
Co-leader	October 2023 – February 2025
Graduates Learning Astro and Soft Skills (GLASS)	Texas A&M University
In the News Presenter	October 2023 – Present
Astronomy on Tap	Bryan, TX
Mentor	August 2023 – Present
Mentoring and Advising Graduates in an Inclusive Community (MAGIC)	Texas A&M University
Trivia Creator	May 2023 – July 2024
Astronomy on Tap	Bryan, TX
Astronomer/Physicist	October 2022 – Present
$Adopt ext{-}a ext{-}Physicist$	Texas $A \& M$ University
Teaching Experience	
Teaching Assistant, Lab Instructor	January 2024 – May 2024
ASTR 111: Overview of Modern Astronomy	Texas A&M University
Teaching Assistant	August 2023 – December 2023
ASTR 320: Astrophysical Research Methods	Texas A&M University
Teaching Assistant, Lab Instructor	January 2023 – May 2023
ASTR 111: Overview of Modern Astronomy	Texas $A \& M$ University
Teaching Assistant	August 2022 – December 2022
ASTR 401: Stars and Extrasolar Planets	Texas A&M University
Observation Experience	
MSU Observatory 0.6-meter Telescope (~30 hrs)	
Professional Society Memberships	
American Astronomical Society	October 2021 - Present

September 2021 - May 2022

 $S{\scriptstyle \rm KILLS}$ 

American Physical Society

**Programming**: Python, C++, Swift/SwiftUI, Xcode, LaTeX, Git, Ruby, Java, MATLAB, Mathematica **Astronomy/Physics**: CARTA, CASA, DS9, ROOT, AstroImageJ, Maxim DL, ACE SmartDome, grizli **Engineering**: 3D printing, AutoCAD, Cura, Arduino