

# Daniel A. Paradiso

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## Contact Information

Department of Physics  
Syracuse University  
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## Education

Syracuse University, Syracuse, New York USA

Physics PhD Program

- Attended: 2022 - Present
- Advisor: Eric Coughlin

Syracuse University, Syracuse, New York USA

B.S. with Distinction, Physics, *Magna Cum Laude*, 2022

## Research Interests

Shocks – Supernovae – Astrophysical Fluids – Tidal Disruption Events

## Publications

*Low-energy explosions in a gravitational field: Implications for sub-energetic supernovae and fast X-ray transients*

**Paradiso, D.A.**, Coughlin, E.R., Zrake, J., & Pasham, D.R., 2024, ApJ, 961, 158

*The Peak of the Fallback Rate from Tidal Disruption Events: Dependence on Stellar Type*

Bandopadhyay, A., Fancher, J., Athian, A., Indelicato, V., Kapalanga, S., Kumah, A., **Paradiso, D.A.**, Todd, M., Coughlin, E.R., & Nixon, C.J., 2024, ApJL, 961, L2

## Presentations

Research Oral Examination, Syracuse University, September 18, 2024

Title: *Life After Death: X-ray Transients from Failed and Sub-Energetic Core-Collapse Supernovae* (Oral)

Anticipating the Rising Tide of Tidal Disruption Events: Theory and Observations, UCSB KITP, April, 2024

Title: *X-ray Flashes from Failed and Sub-energetic Core-Collapse Supernovae* (Poster)

243<sup>rd</sup> Meeting of the American Astronomical Society, January 9, 2024

Title: *Low-energy explosions in a gravitational field: Sub-energetic supernovae and fast X-ray transients* (Poster)

Syracuse University College of Arts and Sciences Research Festival, April 22, 2022

Title: *Prototyping and Data Collection with the SciMAD Cosmic Ray Detector* (Oral)

Syracuse University College of Arts and Sciences Research Festival, April 30, 2021

Title: *Constructing and Testing a Helical Resonator* (Oral)

## **Awards**

National Science Foundation Graduate Research Fellowship, 2024-2027

Syracuse University Pre-Dissertation Summer Fellowship, Syracuse University Graduate School, 2023

Social Justice and Community Building Award, Syracuse University Department of Physics, 2022

Academic Excellence Prize, Syracuse University Department of Physics, 2022

## **Teaching and Outreach**

Teaching Assistant, Syracuse University

PHY 212: Electricity and Magnetism, *recitation* (2022 - 2024)

Syracuse University Research in Physics Summer Program Mentor, Syracuse University  
2022 - Present

Physics Outreach Group, Syracuse University  
2021 - Present

Holden Observatory Tour Guide, Syracuse University  
August 2021 - Present

Guest Speaker at High School Physics Class, Watkins Glen High School  
October 6, 2023

Physics Undergraduate Learning Assistant, Syracuse University  
PHY 212: Electricity and Magnetism (2021 - 2022)

Museum of Science & Technology Kids Day, Syracuse, NY  
February 22, 2020

## **Service**

Physics Graduate Student Organization President, Syracuse University Department of Physics  
2023-Present

Physics Graduate Admissions Committee Member, Syracuse University Department of Physics  
2023-Present

Society of Physics Students Vice President, Syracuse University Department of Physics  
2021-2022