

# OLIVIA GUARINELLO

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Georgia Institute of Technology  
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## EDUCATION

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### Georgia Institute of Technology

*PhD in Public Policy, concentration in Energy and Environment, minor in Economics*  
*Master of Sustainable Energy and Environmental Management*

**Atlanta, GA**

*Expected May 2029*

*August 2025*

### Davidson College

*Bachelor of Science, Physics and Hispanic Studies*

- GPA: 3.95 – Magna Cum Laude

**Davidson, NC**

*May 2024*

## RESEARCH INTERESTS

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My research examines the innovation of sustainable aviation fuels through a lens of energy policy and economics with a focus on techno-economic analysis, case study of aviation sustainability market formation, and quantitative assessment of emerging technology commercialization outcomes.

## HONORS AND AWARDS

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- Outstanding Graduate Teaching Assistant for the Carter School of Public Policy at Georgia Tech, 2026
- Leadership in Service award for excellence in service in the Davidson College, local, and global communities, 2024
- Arts & Creative Engagement Artistic Independent Research Grant for independent linguistics study in Spain, 2024
- Heitz-Wagener Travel Grant to study multilingualism in Foz do Iguaçu, Rio de Janeiro, and São Paulo, Brazil, 2023
- Center for Civic Engagement Stone Fund grant to support creation of a pollinator garden, Davidson College, 2022
- Goodwin Chemistry and Physics Scholarship in recognition of achievement in physics, Davidson College, 2021
- George Labban, Jr. Scholarship in recognition of academic achievement, Davidson College, 2020

## PUBLICATIONS

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Kuchera, A. N., et al. "Testing interaction simulations with 20 - 400 MeV neutron scattering data from plastic scintillators." *Nuclear Inst. and Methods in Physics Research, A.* (2026):

<https://doi.org/10.1016/j.nima.2026.171338>

Kuchera, A. N., et al. "Single-Neutron Adding on 34S." *The European Physical Journal A* 60, no. 9 (2024): 176.

<https://doi.org/10.1140/epja/s10050-024-01399-z>

## PRESENTATIONS

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"Tailored Incentives for Sustainable Aviation Fuel Pathways: A Cross-Regional Techno-Economic Assessment,"  
Association for Public Policy Analysis and Management Fall Research Conference, Seattle, WA, November 2025

"Leybold Michelson Interferometry," Verna Miller Case Symposium, Davidson, NC, May 2024

"Shining a light on solar-powered curricula: Energy, Environment, and Engineering Design," Southeastern Student Sustainability Conference, Athens, GA, April 2024

"Behavior of light and dark scattered neutrons in MoNA bars in comparison with simulation," Fall Meeting of the APS Division of Nuclear Physics, virtual, October 2021

## TEACHING AND INSTITUTE CONTRIBUTIONS

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- Economics of Environmental Policy (TA, Spring 2026)
- Sustainable Energy and Environmental Management (TA, Fall 2025)

- Master of Sustainable Energy and Environmental Management Chair, Georgia Tech Public Policy Graduate Student Association (2024-2025 Academic year)

## RESEARCH AND PROFESSIONAL EXPERIENCE

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### Georgia Institute of Technology – Graduate Research

Atlanta, GA

Advisor: Dan Matisoff

August 2024 – present

- Forecast future price changes in sustainable aviation fuel pathways including Fischer-Tropsch using woody biomass through development of techno-economic assessment modeling
- Assess intermarket dependencies and feedstock limitations to calculate regional price variation

### Integrated Solutions

Atlanta, GA

Sustainable Communities Summer Intern

May 2025 – August 2025

- Assisted projects in energy efficiency project installation, workforce development, and civic engagement
- Supported planning and execution of third annual Southeast Environmental Justice Summit with 400+ attendees to foster partnerships that promote equitable, just climate solutions in the Southeast U.S.

### Electric Power Research Institute (EPRI)

Charlotte, NC

Event Support Student Employee

August 2023 – July 2024

- Provided comprehensive event planning support for 500+ events per year
- Performed data cleanup and website building projects related to the generation, delivery, and use of electricity to help address challenges in the energy industry

### Davidson College Sustainability Office

Davidson, NC

Events and Initiatives Team Lead

August 2020 – May 2024

- Coordinated campus activities including educative events, community engagement, and collaboration promoting sustainability
- Built on and prioritized actions in the college's transportation and climate action plans

### Davidson College Physics Department

Davidson, NC

Undergraduate Researcher

August 2023 – December 2023

- Independently conducted experiment utilizing a novel method to measure recombination rates in semiconductor material and compared to optical methods, contributing to the identification of defects in solar cells

## PROFESSIONAL ASSOCIATIONS

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- Sigma Delta Pi National Collegiate Hispanic Honor Society
- Phi Beta Kappa National Honor Society
- Sigma Pi Sigma Physics and Astronomy Honor Society

## SKILLS

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- Languages: Spanish (fluent), Brazilian Portuguese (proficient), Italian (basic)
- Programming languages: Python, R, C++
- Frameworks and tools: LaTeX, Arduino, Photoshop, Canva
- Operating systems: Windows, Linux, Mac OS X