Genevieve Romanelli

New York, NY | gromanelli@gradcenter.cuny.edu | giromanelli.github.io

Education

Ph.D. in Mathematics, CUNY Graduate Center September 2024–present

Recipient of Graduate Center Fellowship & Provost Enhancement Fellowship.

B.S. in Mathematics, Tufts University September 2020–May 2024

Summa Cum Laude.

Community outreach

Graduate Mentor, QED REU, York College AY 2025, 2026

Mentoring with Professor Radoslaw Wojciechowski. 2025 project was with two students on uniqueness of discrete energy forms, led to a preprint. 2026 project (ongoing) is with two students on bounds for the spectral gap.

Mentor, Girls' Angle Spring 2021–Spring 2024

Guided weekly meetings of middle and high school girls passionate about math.

COI Mapping Intern, MGGG Redistricting Lab June–August 2021

Program participation

Fractals REU, University of Connecticut May–August 2023

Extended convergence rate results for Laplacian Eigenmaps algorithm with Professors Luke Rogers and Alexander Teplyaev.

VERSEIM REU, Tufts University June–August 2022

Worked on analogues to a two spheres mean value problem and the Pompeiu problem on homogeneous trees with Professor Fulton Gonzalez.

Research

- L. Hernandez, S. Ku, J. Masamune, G. Romanelli, R. K. Wojciechowski, *Form uniqueness for graphs with weakly spherically symmetric ends*, 2025, arXiv: `2509.22967 (math-ph)`, (`https://arxiv.org/abs/2509.22967`).
- B. Akwei *et al.*, *Convergence, optimization and stability of singular eigenmaps*, 2024, arXiv: `2406.19510 (math.PR)`, (`https://arxiv.org/abs/2406.19510`).

Presentations

- *Form uniqueness for graphs with weakly spherically symmetric ends* (poster), Fractals 8, Cornell (June 2025).
- *Form uniqueness for weakly spherically symmetric graphs*, Converge 2025, York College (May 2025).
- *Laplacian Operators on Self-Similar Spaces*, REU Symposium, Tufts University (March 2024).
- *Approximation of Laplacian Operators* (poster), PME Poster Session, JMM (January 2024).
- *Mean Value Operators on Homogeneous Trees* (poster), PME Poster Session, JMM (January 2023).