

Genevieve Romanelli

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Education

CUNY Graduate Center, New York, NY

September 2024 — present

Ph.D. in Mathematics

Recipient of Graduate Center Fellowship & Provost Enhancement Fellowship.

Tufts University, Medford, MA

September 2020 — May 2024

B.S. in Mathematics, Summa Cum Laude

GPA: 3.83

Dean's List: F 2020, S 2021, S & F 2022, S & F 2023, S 2024

Research

(With L. Hernandez, S. Ku, J. Masamune, R. Wojciechowski). *Form uniqueness for graphs with weakly spherically symmetric ends*. Forthcoming.

(With B. Akwei et al.). *Convergence, optimization and stability of singular eigenmaps*. Preprint, arXiv:2406.19510.

Program participation

UConn REU, Laplacian eigenmaps with Professors Luke Rogers and Alexander Teplyaev, May - August 2023.

VERSEIM REU, spectral graph theory with Professor Fulton Gonzalez, June - August 2022.

Community outreach

QED REU, graduate mentor for 2024 - 2025 academic year. Worked with two undergraduate students, project characterized uniqueness of energy forms associated to graphs with various regularity properties.

Girls' Angle, mentor Spring 2021 - Spring 2024. Guided weekly meetings of middle and high school girls passionate about math.

MGGG Redistricting Lab, intern June - August 2021. Analyzed written comments and community mapping data submitted for use in redistricting work and gerrymandering research.

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).