

# Daniel Yoontae Hwang

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🌐 <https://danielyhwang.github.io>



## Education

- 2022 – Present **Ph.D. in Mathematics, Georgia Institute of Technology**  
Investigating problems in weighted Ehrhart theory and algebraic combinatorics.  
Advised by Josephine Yu. Expected graduation May 2027.
- 2018 – 2022 **B.S. in Mathematics and Computer Science, Duke University**  
Graduation with Distinction. Senior thesis title: *Analyzing the bistability of the minimally bistable ERK network using the discriminant locus*. Advised by Margaret Regan.

## Employment History

- Summer 2025 **Student Researcher.** Zuse Institute Berlin/GRIPS 2025 Berlin Internship.
- Summer 2023 and 2024 **Student Researcher.** Los Alamos National Laboratory.
- 2022 – Present **Graduate Teaching Assistant.** Georgia Institute of Technology.
- 2018 – 2022 **Undergraduate Teaching Assistant.** Duke University.

## Research Publications

### Journal Articles

- 1 D. Hwang, J. Whidden, and J. Yu, “Computing parametric weighted ehrhart polynomials of smooth polytopes,” 2025. arXiv: 2511.09744 [math.CO]. [🔗 URL: https://arxiv.org/abs/2511.09744](https://arxiv.org/abs/2511.09744).

### Conference Proceedings

- 1 K. Isham, L. Monroe, K. Lakhota, A. Dawkins, D. Hwang, and A. Kubicek, “Edge-disjoint spanning trees on star products,” in *2025 IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, 2025, pp. 309–321. [🔗 DOI: 10.1109/IPDPS64566.2025.00035](https://doi.org/10.1109/IPDPS64566.2025.00035).

## Miscellaneous Experience

### Academic Awards and Achievements

- 2025 **GAANN Fellowship**, Department of Education and Georgia Tech School of Math.
- 2019 **Putnam Contest Top 500**, Duke University.
- 2018 **North Carolina Math Scholar - Full-Tuition Scholarship**, Duke University.

### Teaching Awards

- (x2) **Thank-A-Teacher Award**, Georgia Tech Center for Teaching and Learning.
- 2022 **Rebecca DeNardis Memorial Award**, Duke Computer Science.

### Service Awards

- 2025 **FESTA (Community Service) Fellowship**, Georgia Tech School of Math.
- 2022 **Excellence in Community Service Award**, Duke Math.

## Miscellaneous Experience (continued)

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### Service Positions

- 2025  **Graduate Student Representative** for Georgia Tech School of Math.
- 2024  **Mentor** for Georgia Tech Directed Reading Program.
-  **Lead Organizer** for Georgia Tech High School Math Day.
- 2022  **Student Member** for Duke Math DEI Committee.
- 2021  **Lead Organizer** for Duke Math Meet.

### Selected Conferences [(\*) indicates Poster, (\*\*) indicates Talk]

- 2026  (\*\*) AMS Sectional Spring 2026 at Georgia Southern University, Savannah, GA.
- 2025  (\*) Triangle Lectures in Combinatorics Fall 2025 at Duke University, Durham, NC.
-  Arbeitsgemeinschaft on Combinatorial Hodge Theory at Oberwolfach, Germany.
-  (\*) ACD Workshop at Institute for Pure and Applied Mathematics, Los Angeles, CA.
- 2024  Encuentro Colombiano de Combinatoria at Universidad del Cauca, Popayán, Colombia.