

Hannah Mobley

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Current mathematics graduate student with an interest in teaching-oriented careers. Passionate about demystifying mathematics for students who consider themselves “anti-math” and meeting students where they are to improve learning outcomes. Research interests include algebraic combinatorics and group theoretic areas.

EDUCATION

EXPERIENCE

- **University of Kentucky** Lexington, Kentucky
Graduate Teaching Assistant
• **Archer Advertising** Memphis, Tennessee
Creative Intern
• **Rhodes College Mathematics Department** Memphis, Tennessee
Summer Fellow
• **Rhodes College Communications Department** Memphis, Tennessee
Rhodes Student Associate Writer
 - **Description:** 20 hour per week commitment while pursuing PhD. So far, taught one semester of recitation-style precalculus in Fall 2025 and will teach calculus I for the Spring 2026 semester.
 - **Student Feedback:** Received an average instructor score of 4.95/5, compared to the department average of 4.4.
 - **Description:** Internship won through Rhodes College's Archer Award for Creativity. Assisted in data collection, pitches to clients, and creative briefs on multiple Archer accounts, including Capital Farm Credit, LA Fitness, and pro bono work for the Hospitality Hub, a Memphis organization combatting homelessness.
 - **2023:** Conducted full-time, compensated independent research in algebraic topology and symplectic geometry with the mentorship of a professor. Resulted in publication described below.
 - **2024:** Conducted full-time, compensated independent research in combinatorial game theory with the support of Rhodes College's Robert Allen Scott Award, leading to an Honors Thesis in mathematics.
 - **Program:** About 5 percent of Rhodes students hold highly competitive Rhodes Student Associate (RSA) jobs, which are designed to provide career-building experience with higher compensation than work study.
 - **Description:** Wrote articles for Rhodes News, which involved research, interviewing, writing, peer reviewing, copy editing, and participation in editorial meetings. Once published in Rhodes Magazine; twice nominated for RSA of the Year.

PROJECTS

- **Euler characteristics of linear symplectic quotients and $O(2)$ -spaces:** Research conducted during 2023 summer fellowship within algebraic topology and symplectic geometry. Published¹ January 2025 in the Journal of Singularities. <https://www.journalofsing.org/volume28/article1.html>
- **Two partisan games on integer partitions:** Research conducted in combinatorial game theory during summer of 2024 with award funding. Solved one partisan game on a Young diagram in its entirety, with various results on a more complicated version allowing gameplay on multiple Young diagrams.

PRESENTATIONS

- 2023 TN Academy of Sciences Meeting: Oral¹
- 2024 Joint Mathematics Meeting: Poster¹
- 2024 NE Conference for Undergraduate Women in Math: Poster¹
- 2025 NE Conference for Undergraduate Women in Math: Oral¹

¹ appears under maiden name "Meit"

ACHIEVEMENTS

- **Peyton Nalle Rhodes Phi Beta Kappa Prize¹ (2025):** Highest academic honor awarded by Rhodes College to one graduating senior annually based on GPA, interdisciplinary work, and engagement with research and the liberal arts. Since Rhodes students are not ranked, this award exists in lieu of valedictorian.
- **Phi Beta Kappa¹ (2025):** Five to ten percent of students per graduating class are inducted into Phi Beta Kappa, “the oldest and most prestigious academic honor society in the country.”
- **Archer Award for Creativity¹ (2025):** Academic award given by Rhodes College and sponsored by Archer Advertising to one student annually for exceptional interdisciplinary and creative efforts. Based on nomination and portfolio built by multiple professors. Award comes with financial prize and internship opportunity.
- **Steckler Fellowship (2025):** Merit fellowship awarded by the University of Kentucky.
- **Jack U. Russell Award for Outstanding Sophomore (2023) and Senior (2025) Award in Mathematics¹ :** Rhodes College award given to two sophomores and one senior annually.
- **Dobro Slovo¹ (2025):** One of five of Rhodes College’s 2025 inductees to the National Slavic Honors Society.
- **Robert Allen Scott Award in Mathematics¹ (2024):** Rhodes College competitive research grant given to one junior annually.
- **Excellence in Introductory (2024) and Advanced (2025) Russian Award¹:** Rhodes College award given to two students annually.

SKILLS

- **Proficient:** LaTeX, scientific writing, classroom teaching, mathematics tutoring, conversational Russian
- **Comfortable:** Mathematica, MATLAB