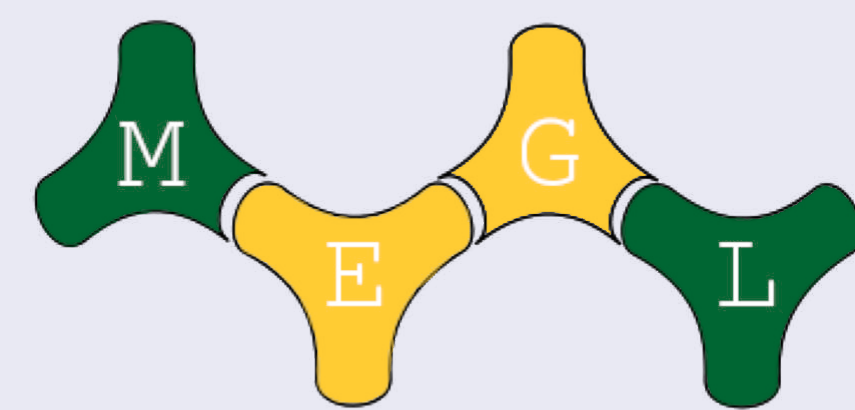


# Fall 2023 Outreach Team

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Mason Experimental Geometry Lab



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## Introduction

This semester, we welcomed two new teammates! We have been continuing to train our members to run activities and gain more volunteers.

## Activities

- Polygons, Tilings and Maps
  - Classifying shapes
- Quantum Computing
  - Efficient algorithms
- You Can Count on Monsters
  - Prime factorization
- Really BIG Numbers
  - Linear, polynomial, exponential, and factorial growth
- Your Teachers are Lying to You
  - Context matters in mathematics
- Playground of the Infinite
  - Hilbert's infinite hotel
- Snowflake Symmetry
  - Group theory
- Hyperbolic Crochet
  - Hyperbolic geometry
- Irrational Thinking
  - Irrational numbers

## Accomplishments

### New Activities

#### Polygons, Tilings and Maps

- Introduces geometry to young students by classifying shapes and coloring in maps
- Uses many mediums, including tactile and visual, to showcase the topics
- Utilized 3D prints from the lab to create personalized materials
- Presented this activity to more than 100 students

#### Quantum Computing

- Aimed for secondary students, but can be presented towards younger students
- Teaches some physics and algorithmic searching to show the current state of technology and the changes that quantum computing can bring
- Introduces bits and qubits
- Utilizes a new version of the game 'Chutes and Ladders' to show the difference in type of bit

## Photos



## Future Goals

- Reach more students and target more secondary school students with our new activities
- Create more follow-up lessons
- Find ways to make the booking process more efficient
- Encourage more students to take part in MEGL Outreach
- Be more active on social media

## Potential New Activities

- Game Theory
- Shape of a Bubble

## More Pictures

