2023 WAM Graduate Ambassador Report: Harvard University

Lead Applicant: Amanda Burcroff

2017 Women and Mathematics participant

Harvard "Real Representations" co-organizer

Co-Applicants: Gwyneth Moreland

2015 Women and Mathematics participant

Harvard "\mathbb{Q}" co-organizer

Harvard "Real Representations" co-organizer

Clair Xinle Dai

2019 and 2021 Women and Mathematics participant

Harvard "Real Representations" co-organizer

Gaurav Goel

Harvard "Gender Inclusivity in Mathematics" 2022 co-president

Madison Shirazi

Harvard "Gender Inclusivity in Mathematics" 2022 co-president

Faculty Sponsor: Lauren Williams

2007 Women and Mathematics speaker

Overview

The Women and Mathematics Ambassador Grant has been instrumental in helping to foster a stronger support network and more welcoming environment within the Harvard mathematics department. The grant not only supported existing initiatives and affinity groups in the department, but also allowed us to hold several new events that we hope will continue to support people in the department for years to come.

The undergraduate group "Gender Inclusivity in Mathematics" (GIIM) faced uncertainty as its usual funding source, the Undergraduate Council at Harvard, dissolved. A portion of the funds went toward their events aimed at building connections among the undergraduate community. They hosted, along with other affinity groups at Harvard, a Semester Kickoff event in the fall. This event was aimed at giving students an opportunity to seek advice from older students and engage with representatives from the various affinity groups to increase awareness about initiatives within the department. This was also the beginning of a partnership between the undergraduate GIIM representatives and the graduate students running some of these affinity groups. This partnership has been furthered in the form of the "Community Committee", which restarted this year after a hiatus during the pandemic, with the overarching goal of increasing access to and supporting people within the mathematics department.

A portion of the funds went toward a mentorship program called "Math Includes" hosted by GIIM. This program organizes mentorship families by shared identities and by mathematical and career interests. They contain (approximately) one student per class year, the idea being that younger undergrads can get advice from older undergrads, who can in turn get advice from grad students, etc. Each mentorship family meets once per month, with each meeting being allotted a small budget to have a meal or snack.

One major event which was hosted with the WAM funds was the Inclusion and Belonging in Mathematics panel, run jointly with GIIM board members and the graduate ambassador. The panel consisted of two faculty, a postdoc, two grad students, and two undergrads, all from underrepresented groups in mathematics. The event was open to everyone

in the department, and was followed by a dinner filled with fruitful discussions on the topics discussed in the panel.

Lastly, the remaining funds went toward supporting some of the monthly lunches held by "Real Representations". This is a group aimed at supporting underrepresented groups in mathematics open to everyone in the department. The monthly lunches serve as a platform for students to seek advice on their life in the department and their future career plans from more senior mathematicians, as well as connect with other peers. Due to a concentrated effort to reach more undergraduates, the number of undergraduate attendees nearly tripled on average this year compared to previous years. The additional funding allowed us to support the new attendees.

In the subsequent report, we include details on each of these initiatives. The final breakdown of the $1000 WAM grant is as follows:

- $200 - Semester Kickoff event and Math Includes
- $378 - Inclusion and Belonging in Mathematics panel
- $422 - Real Representations monthly lunches

Semester Kickoff featuring various affinity groups at Harvard

Announcement:

There will be a GIIM x \mathbb{Q} x Real Representations x Math Includes x HUMA semester kickoff event this **Friday, September 30, 6-8pm in the fourth floor math lounge.** The purpose of the event is to have a space for various outreach groups and math folks in general to mingle and hang out early on the semester. <u>Pizza and snacks will be served</u>.

In case you haven't heard of any of these groups yet, please see the key below.

GIIM (Gender Inclusivity in Mathematics): an undergraduate group focused on fostering an inclusive math community [Contact: harvardundergradgiim@gmail.com]
\mathbb{Q}: an outreach group aimed at LGBTQIA+ people in the mathematics department [Contact: Gwyn Moreland, gwynm@math.harvard.edu]
Real Representations: a monthly lunch group aimed at supporting underrepresented groups in mathematics open to everyone in the department [Contact: Alice Lin, alicelin@math.harvard.edu]
Math Includes: a mentorship program that groups undergraduate and graduate students based on common identities and interest [Contact: Jenny Kaufmann, jkaufmann@math.harvard.edu]
HUMA (Harvard University Mathematics Association): an organization hosting events to advance undergraduate knowledge and appreciation of mathematics, [Contact: huma-board@lists.hcs.harvard.edu]

This event is partially supported by Lisa Simonyi and the IAS Women and Mathematics Program.

Math Includes Mentorship Program

Mission:

Our goal is to create a welcoming and supportive community around mathematics through building personal relationships between mentors and mentees.

We hope that mentors will be able to share their academic, extracurricular, and professional experiences and to develop fulfilling relationships with mentees. Meanwhile, we hope that mentees will be able to share their goals and concerns around various challenges in math or college. At the very least, we hope that your mentor or mentees will become another friendly face on campus!

Each family will have

***4-5 students* *from a mixture of class years*

*A graduate student or postdoc mentor (that's you)

*Monthly get-togethers

*Budget for free food

More details: Mentorship families will be organized by shared identities and by mathematical and career interests. They'll contain (approximately) one student per class year, the idea being that younger undergrads can get advice from older undergrads, who can in turn get advice from grad students, etc.

Inclusion and Belonging in Mathematics Panel

Announcement:

We'd like to invite you to a panel on Inclusion and Belonging in Mathematics on Monday, with dinner offered after. Everyone is welcome to attend, including students, faculty, and staff. Please RSVP at this link.

Date: Monday, April 24 from 4:15-5:30pm

Title: Inclusion and Belonging in Mathematics Panel

Location: Science Center Hall B

Description: The student group Harvard Gender Inclusivity in Mathematics (GIIM) will be hosting a panel on inclusion in mathematics in our department and beyond. The panelists will speak to the highlights and challenges they've experienced in mathematics, especially as mathematicians from underrepresented groups. There will be some preset questions, but we will also encourage the audience to ask questions throughout.

List of panelists:

- Robin Gottlieb (professor)

- Hakim Walker (preceptor)

- Theo McKenzie (postdoc)

- Isabel Longbottom (graduate student)

- Clair Xinle Dai (graduate student)

- Hana Lang (undergraduate student)

- Sílvia Casacuberta (undergraduate student)

- Moderators: Danielle Paulson and Dora Woodruff

This event is supported by Lisa Simonyi and the IAS Women and Mathematics Program.

INCLUSION AND BELONGING IN MATHEMATICS PANEL

HARVARD UNDERGRAD GENDER INCLUSIVITY IN MATHEMATICS

WHEN: MONDAY, APRIL 24TH, 4:15-5:30PM
WHERE: SCIENCE CENTER HALL B

PANELISTS

Hakim Walker
PRECEPTOR

Robin Gottlieb
PROFESSOR

Theo McKenzie
POSTDOC

Clair Xinle Dai
GRADUATE

Isabel Longbottom
GRADUATE

Sílvia Casacuberta
UNDERGRAD

Hana Lang
UNDERGRAD

Join Harvard Undergraduate Gender Inclusivity in Mathematics (GIIM) for a conversation on inclusion in mathematics in our department and beyond. Panelists will speak to the highlights and challenges they've experienced in mathematics. We welcome everyone—including students, faculty, and staff—to join us!

Dinner will be provided afterward in the Math Lounge!

RSVP HERE!

HTTPS://FORMS.GLE/F
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Panel topics + questions:

1. Introductions
   a. ***Q: Name, affiliation with department (UG, G, etc.), where is home?, math interests, anything else they'd like to add***
2. Hobbies and Other Interests
   a. Purpose: debunking myth that math people only think about math all the time
   b. ***Q: What other things do you think about or enjoy doing? In what ways do you try to maintain a healthy work-life balance?***
3. Impostor Syndrome
   a. Purpose: validating people's struggles in math
   b. *Q: There is an unfortunately large stigma in math against making mistakes. Compounded with the struggles that come with belonging to an under-represented minority, there is a strong tendency to feel inadequate and believe mathematical abilities are innate.* ***(1) What factors contribute to this notion of "math people," and how may one reason against this myth? (2) If comfortable, could you share a time when you felt discouraged from pursuing math because of your background? How did you overcome these challenges?***
4. Problems of Inclusivity in Math Culture at Large
   a. Purpose: contextualize Harvard math department within a broader discussion
   b. *Q: As suggested by the remarks for the previous topic, it is apparent that there are many systemic problems in math culture. For example, proofs in mathematical writing show no signs of the difficulties or mistakes made in the process of developing the proof, thus generating a culture that looks down upon making mistakes.* ***What issues have you seen and/or experienced in math communities, and where may these issues be coming from?***
5. Harvard Math Department: What does it do well?
   a. Purpose: increase awareness of organization of the math department and its initiatives, ease into criticism (next topic)
   b. ***Q: In what ways does Harvard do a good job in upholding diversity, equity, and inclusivity?*** *Potential starting points of discussion: (1) What structures have been put in place, and what is the history behind them? (2) What programs are special at Harvard that you think are valuable? How have students' experiences in these programs been?*
6. Harvard Math Department: What can it improve on?
   a. Purpose: continuation of above topic, get people thinking about how to improve
   b. ***Q:*** *(to all)* ***What are some changes you would like to see in the department?*** *(more to faculty)* ***What are some initiatives that the department has unsuccessfully tried to pursue? What problems in math culture were these initiatives trying to address?***
7. Importance of Diversity
   a. Purpose: validating and highlighting the relevance of our conversations
   b. ***Q: One can make a case that diversity is important in academia, particularly in the humanities, because work is often derived from personal***

experiences. Could we make a similar argument for math? Why are efforts for diversity and inclusion in math so important?

Follow-up post by the department media coordinator:

harvardmath • Follow

harvardmath Thanks to Harvard Undergrad Gender Inclusivity in Mathematics (GIIM) for organizing the Inclusion and Belonging in Mathematics Panel! It brought together faculty and students from the Harvard math community for a conversation on inclusion in mathematics in our department and beyond. Panelists spoke about their personal backgrounds and experiences, the times when imposter syndrome made them reconsider their place in the world of mathematics, and the sense of community and sheer love for the subject that brought them back in. They also discussed some of the existing challenges students still face, such as educational disparity, the often rote way math is taught at a pre-college level, and the importance of acknowledging the numerous career paths and goals students of mathematics can have, each one as valid as the other. We are thrilled these conversations are being had and hope to encourage an environment conducive to further constructive reflection.
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#harvardmath #giim #genderandinclusivity #math #mathematics #genderandinclusivityinmath
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33 likes
APRIL 25

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Real Representations

Typical Monthly Lunch Announcement:

Hi everyone,

I hope you're all having a great semester!

Real Representations, a lunch and support group for all underrepresented groups in mathematics, will be hosting a lunch social [date + time] in the math department common room. Anyone affiliated with the math department is welcome, including undergraduates, graduate students, post-docs, faculty, and staff.

You can RSVP to attend here: [link]

The event is catered: the Google form has an option to sign up to receive a lunch special from Zoe's Chinese Restaurant. If you would like to receive this free lunch, you must RSVP before [date + time] so we can place the order. Please do not hesitate to contact me or the other organizers if you have any questions.

This event is partially supported by Lisa Simonyi and the IAS Women and Mathematics Program.