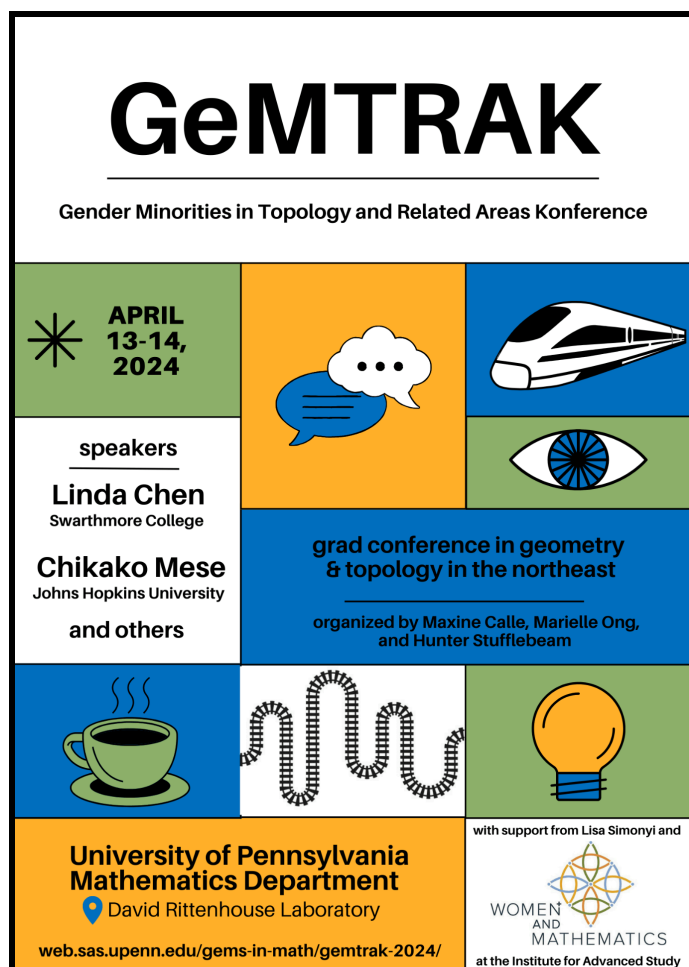


GeMTRAK Activities Report

Maxine Calle



The poster for the GeMTRAK conference is a colorful grid. At the top, it features the title 'GeMTRAK' in large black letters, with the subtitle 'Gender Minorities in Topology and Related Areas Conference' below it. The main body is divided into several sections: a green box with a starburst icon and the dates 'APRIL 13-14, 2024'; a white box listing speakers 'Linda Chen' (Swarthmore College) and 'Chikako Mese' (Johns Hopkins University), along with 'and others'; a blue box for the 'grad conference in geometry & topology in the northeast' organized by Maxine Calle, Marielle Ong, and Hunter Stufflebeam; a blue box with a coffee cup icon; a white box with a wavy line icon; a green box with a lightbulb icon; a blue box with a train icon; and a green box with an eye icon. At the bottom, it includes the 'University of Pennsylvania Mathematics Department' logo and contact information, and a logo for 'WOMEN AND MATHEMATICS at the Institute for Advanced Study' with support from Lisa Simonyi.

Overview

In April 2024, we hosted the **Gender Minorities in Topology and Related Areas Conference (GeMTRAK)** at the University of Pennsylvania. The goal of the conference was to highlight the work of mathematicians in topology and geometry from gender minority groups, explore issues related to being a gender minority within academia, and boost networking connections within the mathematics community in the Northeast region. The weekend event hosted 27 participants including the three graduate student organizers, Maxine Calle, Marielle Ong and Hunter Stufflebeam, and two plenary speakers, Linda Chen and Chikako Mese. Mathematical topics represented included enumerative geometry, geometric analysis, symplectic geometry, low-dimensional topology, hyperbolic geometry and applied topology.

Logistical information

Name: Gender Minorities in Topology and Related Areas Conference (GeMTRAK)

Location: Mathematics Department at the University of Pennsylvania

Dates: 04/13/2024-04/14/2024

Organizers: Maxine Calle, Marielle Ong, Hunter Stufflebeam

Conference website (including a complete schedule with talk titles and abstracts):

<https://web.sas.upenn.edu/gems-in-math/gemtrak-2024/>

Activities summary

GeMTRAK began on Saturday 04/13/2024 at 10am and lasted 1.5 days, ending around noon on Sunday 04/14/2024. Both mornings began with an hour-long plenary talk: “Beyond Enumerative Geometry” by Professor Linda Chen of Swarthmore College and “Harmonic Maps and Geometric Rigidity” by Professor Chikako Mese of Johns Hopkins University. The rest of the talks at the conference were given by participants, most of whom were graduate students. Over

the course of the two days, we planned for five 10 minute talks and five 20 minute talks (although there was a last-minute cancellation). The participant talks covered a range of specialities within geometry and topology, including symplectic geometry, low-dimensional topology, hyperbolic geometry and applied topology, among others. A full list of talks, including abstracts, is available on the conference website linked above.

In addition to numerous tea/coffee breaks interspersed throughout the talks, we also planned for two hours of free time on Saturday afternoon, before the conference dinner at Su Xing in downtown Philadelphia. We provided a list of suggestions for free time activities, one of which was small group discussions (facilitated by the organizers) about being a gender minority in mathematics academia. These discussions were guided by questions we prepared in advance, including the following:

- Describe your research in a haiku or limerick
- Who was an important mentor in your journey in math/academia? What did they do that was so important?
- When you're having a bad day, what cheers you up?
- What made you decide to pursue a career/degree in math?



GeMTRAK group photo

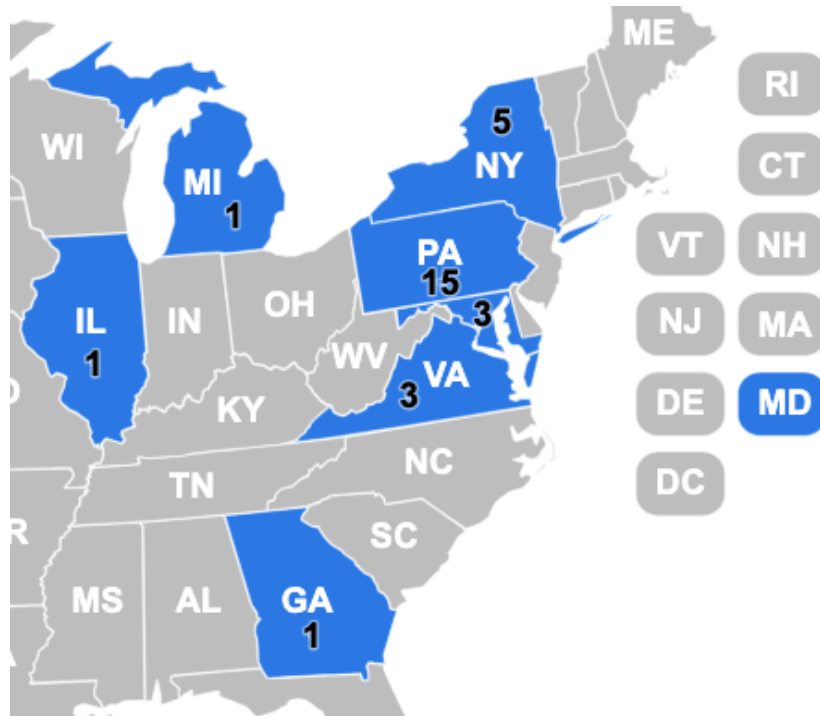
Participant information

Our event hosted 27 participants, including the three organizers, two plenary speakers and nine additional participant speakers. All of our speakers and most of our participants self-identified as gender minorities. Below is a list of participants' names and institutions as well as some other demographic data.

- Ahmed, Nooria. Johns Hopkins University, MD.
- Balasubramanya, Sahana. Lafayette College, PA.
- Borisov, Nikita. University of Pennsylvania, PA.
- Branman, Beth (speaker). University of Virginia, VA.
- Brenner, Hazel (speaker). Cornell University, NY.
- Buckminster, Ellis. University of Pennsylvania, PA.
- Calle, Maxine (organizer). University of Pennsylvania, PA.
- Chakravarty, Avik. University of Pennsylvania, PA.
- Chen, Linda (plenary speaker). Swarthmore College, PA.
- Cooperband, Zoe (speaker). University of Pennsylvania, PA.
- Dinowitz, Emma. CUNY Graduate Center, NY.
- Fan, Caifei. Georgia Tech, GA.
- Frias, Quincy (speaker). George Mason University, VA.
- Gibney, Angela. University of Pennsylvania, PA.
- Gurvich, Ellie (speaker). University of Maryland Baltimore, MD.
- Herron, Amy (speaker). University of Buffalo, NY.
- Holley, Lydia. University of Illinois at Chicago, IL.
- Jiang, Yoyo. Johns Hopkins University, MD.
- Lahn, Max (speaker). University of Michigan, MI.
- Lennen, Emmett (speaker). University of Pennsylvania, PA.
- Liles, Louisa (speaker). University of Virginia, VA.
- Liu, Tianyue. University of Pennsylvania, PA.
- Merling, Mona. University of Pennsylvania, PA.
- Mese, Chikako (plenary speaker). Johns Hopkins University, PA.
- Ong, Marielle (organizer). University of Pennsylvania, PA.
- Reisinger, Dee Ann. Bryn Mawr College, PA.
- Stuffelbeam, Hunter (organizer). University of Pennsylvania, PA.

| | Undergraduate students | Graduate students | Postdocs/Faculty |
|------------------------|------------------------|-------------------|------------------|
| Number of participants | 1 | 20 | 6 |

Number of participants by career stage



Number of participants by state

Impact of activities

GeMTRAK was a relatively small conference aimed at gender minorities in geometry and topology. Our primary goal was to build connections amongst mathematicians – especially graduate students – in the Northeastern region. As gender minorities ourselves, the organizers understand the importance of support networks to create and sustain a diverse community, and it was very important to us to create an environment where everyone felt supported, regardless of their gender. Based on participant reviews of the conference, collected via an anonymous Google forms survey, our hard work paid off: one participant shared that they felt “respected and at-ease all weekend” and another stated that the organizers had “clearly put a lot of thought and effort into creating a welcoming space.”

Account of funds

The conference was supported by W+aM’s Ambassador Program as well as the discretionary funds of four female faculty members of the Mathematics Department at the University of Pennsylvania: Angela Gibney, Julia Hartmann, Mona Merling and Yumeng Ou. Additionally, we are very grateful to have received extra support from the Mathematics Department to cover the unexpectedly high cost of hotel accommodations.

| Funding source | Funding amount |
|------------------------------------|-----------------------|
| W+aM Ambassador Program award | 3,000 |
| UPenn Mathematics Department funds | 5,000 |
| UPenn Mathematics faculty funds | 2,000 x4 |
| Total | 16,000 |

Our three main expenses were travel reimbursements, lodging, and meals. To minimize travel costs, we asked participants to avoid air travel if possible, and many participants traveled by car or by train. Hotel lodging for participants was by far our biggest expense (detailed further below). We provided lunch and dinner for all participants on Saturday, as well as coffee and tea throughout the conference. Miscellaneous expenses included a room booking fee at the University of Pennsylvania.

| Expense description | Approximate cost |
|----------------------------|-------------------------|
| Travel funding | 3,500 |
| Lodging | 10,500 |
| Meals and refreshments | 1,300 |
| Misc. | 200 |
| Total cost | 15,500 |

The cost of hotel lodgings was far higher than expected. We originally budgeted around \$5,000 for hotel expenses, based on costs we found listed on the hotel websites. However when booking the hotels (a process we began several months in advance), we discovered that many hotels had no availability and prices were far higher than previously listed, due to several large events taking place in Philadelphia that weekend. Additionally, the only rooms we could secure were single occupancy rooms, rather than the shared rooms we had originally planned for. Although we needed fewer than 10 rooms for our participants, the cost of lodging ended up being over \$10K. We are very grateful to the Mathematics Department for covering these additional costs that were outside our budget. To emphasize the impact of the hotel costs on our budgeting, the refund from a last-minute hotel room cancellation allowed us to instead cover lunch for the entire conference.