

# Urshita Pal

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University of Michigan  
Department of Mathematics  
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Ann Arbor, MI, USA

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urshitapal.github.io

## Education

**University of Michigan, USA**  
Ph.D., Mathematics, Expected 2027.  
Advisor: Jenny Wilson

**University of Michigan, USA**  
M.S., Mathematics, 2021-23

**Chennai Mathematical Institute, India**  
B.Sc., Mathematics & Computer Science, 2018-21.

## Research Interests

(Co)homology of Arithmetic Groups, (Co)homological stability phenomena

## Awards and Fellowships

**Gold Medal of Excellence, BSc Math & Computer Science**  
Chennai Mathematical Institute, 2021  
*Highest GPA at time of graduation*

**Tuition Fee Waiver**  
Chennai Mathematical Institute, Aug 2018 - April 2021

**Bronze Medal, European Girls Math Olympiad**  
Held in Florence, Italy, 2018

**International Math Olympiad Training Camp, Mumbai, India**  
Selected for Participation, 2017 & 2018

## Teaching

**University of Michigan**  
Instructor, Math 115, Fall 2023  
Instructor, Math 115, Winter 2023  
Instructor, Math 115, Fall 2022  
Instructor, Math 115, Winter 2022  
Instructor, Math 115, Fall 2021

**Chennai Mathematical Institute**  
Teaching Assistant, NPTEL Rings & Fields, Jan-March 2021  
Teaching Assistant, Topology, Spring 2021  
Teaching Assistant, Complex Analysis, Spring 2021  
Teaching Assistant, Analysis 3, Fall 2020  
Teaching Assistant, Probability Theory, Spring 2020

## Talks

### Student & Learning Seminars

- *The Nerve Lemma and Spectral Sequences*, Winter 2024
- *Configurations, Graphs and Trees*, Winter 2024
- *Rational Duality Groups and  $H^*(SL_n\mathbb{Z}; \mathbb{Q})$* , Fall 2023
- *Introduction to Group (Co)homology*, Fall 2023
- *Configurations, Graphs and Trees*, Fall 2023
- *High Dimensional Cohomology of  $SL_n\mathbb{Z}$* , Winter 2023
- *Grassmannian Cohomology and Symmetric Polynomials*, Winter 2023
- *A Gentle Introduction to Representation Stability*, Fall 2022
- *The Combinatorial Nullstellensatz and its Applications*, Winter 2022
- *Braid Groups*, Fall 2021

## Service and Mentorship

### University of Michigan REU, Summer 2024

- *Graduate Student Mentor for the REU hosted by Jenny Wilson*

### Student Dynamics/Geometry/Topology Seminar

- *Co-organiser 2022-23, Organiser 2023-24*

### Lab of Geometry at Michigan

- *Served on the Admissions Committee in Fall '23 & Winter '24*

### AWM Mentor-Mentee Program

- *Mentor for the Academic Year 2022-23*

### Michigan Directed Reading Program

- *Mentor, Winter 2023*

### Michigan Math Club

- *Fagnano's Problem and Reflecting Triangles*, Jan 2023

### Michigan Math Circle

- *Tiling With Dominoes*, Feb 2022

## Conferences and Workshops Attended

- *Scissors Congruences, Algebraic K-Theory and Steinberg Modules*, July 2024  
(Organised through the American Institute of Mathematics)
- *Young Geometric Group Theory XII*, Bristol, April 2024
- *Stability in Topology, Arithmetic and Representation Theory*, Purdue, 2023  
(Attended Virtually)
- *Nearly Carbon Neutral Geometric Topology Conference*, June 2023  
(Attended Topic Group: Profinite and Residual Methods in Geometric Group Theory)
- *Nearly Carbon Neutral Geometric Topology Conference*, September 2022  
(Attended Topic Group: Group Actions on Hyperbolic Spaces)
- *Michigan Research Experience for Graduates*, June 2022  
(Project Topic: *Braids and Polynomials*)

Languages  
and Skills

Hindi, English, Bengali (native); German (basic)  
L<sup>A</sup>T<sub>E</sub>X, C++, Haskell, Python, Java