

# Urshita Pal

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University of Michigan  
Department of Mathematics  
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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)homological stability phenomena in families of groups  
and topological spaces

## 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**

- *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

### **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

- *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)  
 $\LaTeX$ , C++, Haskell, Python, Java