

KUSHLAM SRIVASTAVA

Graduate Student
University of Wisconsin–Milwaukee
Department of Mathematical Sciences

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[Website](#)

EDUCATION

University of Wisconsin–Milwaukee

- Ph.D in Mathematics (expected graduation: May 2027).
- Advisor: Chris Hruska.

Indian Institute of Technology, Kanpur

- B.S-MS dual Degree in Mathematics and Scientific Computing (2021).

RESEARCH INTERESTS

Geometry and Topology : Particular interest in geometric group theory, relatively hyperbolic groups, Bowditch boundaries, low-dimensional topology.

PAPERS

- **Parabolic cut pairs in boundaries of relatively hyperbolic groups.** (submitted) preprint.
[arXiv:2511.11900](#)

INVITED TALKS

- *Parabolic cut pairs on boundaries of relatively hyperbolic groups.* Topology Seminar, Cornell University, April 2026.
- *Parabolic cut pairs on boundaries of relatively hyperbolic groups.* Geometry and Topology Seminar, Virginia Tech, February 2026.

TALKS AND PRESENTATIONS AT CONFERENCES

- *Relatively hyperbolic boundaries with parabolic cut pairs (Poster presentation).* Young Geometric Group Theory XIV, Korea Institute for Advanced Study, June 2026.
- *Relatively hyperbolic boundaries with parabolic cut pairs (Poster presentation).* Graduate Student Topology and Geometry Conference 2026, Rutgers University, April 2026.
- *Parabolic cut pairs on Bowditch boundaries (Lightning talk).* Midwest Summer School in Geometry, Topology, and Dynamics, UW–Madison, June 2025.
- *A combination theorem for relatively hyperbolic groups along parabolic cut pairs (Talk).* 42nd Workshop in Geometric Topology 2025, Oberlin College, June 2025.
- *Relatively hyperbolic groups and cut pairs on their Bowditch boundaries (Talk).* 41st Workshop in Geometric Topology, Calvin University, June 2024.

TALKS AT UW–MILWAUKEE

- *An introduction to geometric group theory*. NSF AIM-UP REU showcase, UW-Milwaukee, July 2026.
- *Strong accessibility for (relatively) hyperbolic groups*. Topology Seminar, UW-Milwaukee, March 2026.
- *An introduction to boundaries of groups*. Graduate Student Colloquium in Mathematics, UW-Milwaukee, February 2026.
- *Decomposing relatively hyperbolic groups via parabolic cut pairs*. Topology Seminar, UW-Milwaukee, September 2025.
- *Combining relatively hyperbolic groups along cut pairs*. Topology Seminar, UW-Milwaukee, March 2025.
- *Cut pairs on trees of metric compacta*. Topology Seminar, UW-Milwaukee, October 2024.
- *Structure-Randomness and The Green-Tao Theorem*. Graduate Student Colloquium in Mathematics, UW-Milwaukee, December 2023.
- *Biautomatic structures on Seifert manifolds*. Topology Seminar, UW-Milwaukee, October 2023.

TEACHING EXPERIENCE

Course Redesign for Calculus and Analytical Geometry I

- Part of a team of six people including faculty and lecturers to redesign the introductory engineering calculus and pre-calculus courses.
- Taught a pilot section of the course for an year working closely with a faculty member.
- Created course material including quizzes and weekly worksheets.

Instructor of Record

- Calculus and Analytic Geometry II (1 term)
- Calculus and Analytic Geometry I (4 terms)
- Elementary Statistical Analysis (1 term, asynchronous online)
- Precalculus (1 term)

Discussion Leader

- Calculus and Analytical Geometry I (4 terms)
- Calculus for Business and Social sciences (1 semester)

AWARDS AND SCHOLARSHIPS

- Morris and Miriam Marden Graduate Award in Mathematics for outstanding paper*, UW-Milwaukee. (2026)
- Mark L. Teply Award for outstanding research potential*, UW-Milwaukee. (2024, 2025, 2026)
- Ernst Schwandt Memorial Scholarship and Teaching Assistant Award*, UW-Milwaukee. (2024)
- Research Excellence Award*, UW-Milwaukee. (2025)

*: Awarded by the Department of Mathematical Sciences, UW-Milwaukee.

- Chancellor's Graduate Student Scholarship, UW-Milwaukee. (2021-2026)
- INSPIRE (Innovation in Science Pursuit for Inspired Research) scholarship funded by the Department of Science and Technology, Government of India. (2017-2020)
- Summer Undergraduate Research Grant of Excellence (SURGE) at the Indian Institute of Technology, Kanpur. (2018)
- Academic Excellence Award, Indian Institute of Technology, Kanpur. (2016-2020)

SERVICE

- **Co-Organizer**, *Graduate Student Colloquium in Mathematics*, UW-Milwaukee, 2024-Present.
- **Mentor**, *PAIR (Peer Alliance for Instructional Reflection) Mentoring Program*, UW-Milwaukee, Spring 2026.
- Participant in the *Student Experience Project*, UW-Milwaukee, Spring 2026.
- **Undergraduate Coordinator**, *Center for Mental Health and Wellbeing*, Indian Institute of Technology, Kanpur, 2018-2020.
- **Senior Research Executive**, *Academics and Research Cell*, Indian Institute of Technology, Kanpur, 2017-2018.

CONFERENCES AND WORKSHOPS ATTENDED

- **43rd Workshop in Geometric Topology**, *Utah Valley University*, June 2026.
- **Young Geometric Group Theory XIV**, *Korea Institute for Advanced Study*, June 2026.
- **Graduate Student Topology and Geometry Conference 2026**, *Rutgers University*, April 2026.
- **42nd Workshop in Geometric Topology**, *Oberlin College*, June 2025.
- **Midwest Summer School in Geometry, Topology, and Dynamics**, *UW-Madison*, June 2025.
- **Geometry, Groups and Dynamics workshop**, *Purdue University*, March 2025.
- **41st Workshop in Geometric Topology**, *Calvin University*, June 2024.
- **2024 AMS Spring Central Sectional Meeting**, *UW-Milwaukee*, April 2024.

REFERENCES

- Chris Hruska (Advisor), Department of Mathematical Sciences, University of Wisconsin-Milwaukee.
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- Craig Guilbault, Department of Mathematical Sciences, University of Wisconsin-Milwaukee.
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