

Inyoung Ryu

riy520@tamu.edu

INTERESTS

Character Variety, Mapping Class Groups and Teichmüller space, Teichmüller Theory,
Low-dimensional Topology, Geometric Group Theory

EDUCATION

Texas A&M University

Ph.D. in Mathematics

Aug.2021 – Present

Texas, US

Ulsan National Institute of Science and Technology(UNIST)

Bachelor of Science in Mathematical Science

Mar.2017 – Jul.2021

Ulsan, Korea

- Minor in Computer Science and Engineering
- Total GPA of 3.99 / 4.3 (95.9 / 100)

Sabancı University

Erasmus Program

Feb. 2020 – Jun. 2020

Istanbul, Turkey

RESEARCH/STUDY EXPERIENCES

In Progress - Topology on Representation Spaces

Texas A&M University

Nov. 2023 – Current

Texas, US

Reading Course with Prof. Tian Yang

Texas A&M University

Feb. 2022 – Oct. 2023

Texas, US

- Teichmüller Theory and Nielsen-Thurston Classification
- Mapping Class Group and Teichmüller Space, Moduli Space
- Knot Theory. Jones Polynomial and Alexander Polynomial

Reading Course with Prof. Tian Yang

Texas A&M University

Feb. 2022 – May. 2022

Texas, US

- Mapping Class Group and Teichmüller Theory
- Knot Theory. Jones Polynomial and Alexander Polynomial

Reading Course with Prof. Guoliang Yu

Texas A&M University

Feb. 2022 – May. 2022

Texas, US

- Fredholm Operator and Higher index Theory

Reading Course with Prof. Irina Bobkova

Texas A&M University

Sep. 2022 – May. 2023

Texas, US

- Algebraic Topology, Stable Homotopy Theory

Low dimensional Topology Seminar

Texas A&M University

Feb. 2022 – May. 2023

Texas, US

- Smooth 4-Manifolds and Intersection Forms
- Teichmüller theory, Nielson-Thurston Classification

Interdisciplinary Project

UNIST

Sep. 2020 – Feb. 2021

Ulsan, Korea

Undergraduate Research Assistant

UNIST

Jul. 2019 – Aug. 2019

Ulsan, Korea

PARTICIPATED CONFERENCES/WORKSHOPS

AMS Central Sectional Meeting <i>University of Texas at San Antonio</i>	Sep. 2024 Texas, US
Canaryfest - Moving to higher rank: from hyperbolic to Anosov <i>Grand Hotel St. Michele</i>	July. 2024 Cetraro, Italy
AlMaRe Conference <i>Fourier Institute</i>	July. 2024 Grenoble, France
Conference on Quantum Topology and Connections to Mathematical Physics <i>Texas A&M University</i>	May. 2024 Texas, US
GIGEM Conference <i>Texas A&M University</i>	April. 2024 Texas, US
Joint Mathematics Meeting (JMM) <i>Moscone Center</i>	Jan. 2024 California, US
Winter School on Low-dimensional Topology and Related Topics <i>Institute for Basic Science</i>	Dec. 2023 Pohang, Korea
Texas Geometry and Topology Conference. <i>Rice University</i>	Nov. 2023 Texas, US
Conference on Characters and Moduli of Surfaces <i>Kyoto University</i>	Jul. 2023 Kyoto, Japan
Summer School on Scissors Congruence, Algebraic K-Theory, and Trace Methods <i>Indiana University</i>	Jun. 2023 Indiana, US
Workshop in Geometric Topology <i>Colorado College</i>	Jun. 2023 Colorado, US
AMS Southeastern Sectional Meeting <i>Georgia Institute of Technology</i>	Mar. 2023 Georgia, US
Winter school in singularities and low-dimensional topology <i>Rényi Institute</i>	Jan. 2023 Budapest, Hungary
Graduate Student Topology and Geometry Conference <i>Georgia Institute of Technology</i>	Apr. 2022 Georgia, US
Texas Geometry and Topology Conference <i>The University of Texas at Dallas</i>	Feb. 2022 Texas, US
The South Central Topology Conference <i>Texas A&M University</i>	Sep. 2021 Texas, US
Arizona Winter School <i>University of Arizona</i>	Jan. 2021-Feb. 2021 Arizona, US
International Congress of Mathematicians(ICM)	Aug. 2014 Seoul, Korea

TALKS

Geometric Approach to Surface Group Representations <i>Graduate Student Organization Seminar, Texas A&M University</i>	Sep. 2024 Texas, US
Topological Components of Spaces of Representations <i>Low-dimensional Topology Seminar, Seoul National University</i>	Aug. 2024 Seoul, Korea
Nielsen-Thurston Classification <i>GIGEM Conference, Texas A&M University</i>	Apr. 2024 Texas, US
Mapping Class Group Action on Teichmüller Space <i>Graduate Student Organization Seminar, Texas A&M University</i>	Apr. 2024 Texas, US

TEACHING EXPERIENCES

Houston A&M Mothers' Club Outstanding TA Award <i>Texas A&M University</i>	Jul. 2024 <i>Texas, US</i>
No Teaching Assistant Duties, Supported by NSF Grant, P.I. - Tian Yang <i>Texas A&M University</i>	Jul. 2024 – Dec. 2024 <i>Texas, US</i>
Help Session Tutor, Math 142 (Business Calculus) <i>Texas A&M University</i>	Jun. 2024 <i>Texas, US</i>
No Teaching Assistant Duties, Supported by NSF Grant, P.I. - Tian Yang <i>Texas A&M University</i>	Jan. 2024 – May. 2024 <i>Texas, US</i>
Grader, Math 636 (Topology I) <i>Texas A&M University</i>	Aug. 2023 – Dec. 2023 <i>Texas, US</i>
Grader, Math 142 <i>Texas A&M University</i>	Jul. 2023 <i>Texas, US</i>
Python Labs, Math 151(Engineering Math I) <i>Texas A&M University</i>	Jun. 2023 <i>Texas, US</i>
Teaching Assistant, Math 152(Engineering Math II) <i>Texas A&M University</i>	Jan. 2023 – May. 2023 <i>Texas, US</i>
Teaching Assistant, Math 151(Engineering Math I) <i>Texas A&M University</i>	Aug. 2022 – Dec. 2022 <i>Texas, US</i>
Grader, Math 304 (Linear Algebra) <i>Texas A&M University</i>	Jun. 2022 <i>Texas, US</i>
Grader, Math 423 (Linear Algebra II) <i>Texas A&M University</i>	Jan. 2022 – May. 2022 <i>Texas, US</i>
Grader, Math 467 (Modern Geometry) <i>Texas A&M University</i>	Aug. 2021 – Dec. 2021 <i>Texas, US</i>
Teaching Assistant(Calculus I, Calculus II) <i>Ulsan National Institute of Science and Technology</i>	Mar. 2018 – Dec. 2019 <i>Ulsan, Korea</i>
Calculus I Open Lecture <i>Ulsan National Institute of Science and Technology</i>	June.2018 <i>Ulsan, Korea</i>

LEADERSHIP/VOLUNTEER EXPERIENCES

Treasurer <i>Association for Women in Mathematics (Texas A&M, 60 members)</i>	Aug.2022 - May.2023 <i>Texas, US</i>
<ul style="list-style-type: none">• Women in Math Mentoring Lunch• AWM peer mentoring program	
Teaching Assistant for Math Circle <i>Texas A&M Math Circle</i>	Nov. 2023 <i>Texas, US</i>
Grader for High School Math Contest <i>Texas A&M High School Mathematics Contest</i>	Nov. 2023 <i>Texas, US</i>
Grader for High School Math Contest <i>Texas A&M High School Mathematics Contest</i>	Nov. 2022 <i>Texas, US</i>